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PTO/AIA/424 (04-14)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Kazuyoshi TAKANO	Nonprovisional Application Number (if known):	
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently $0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.

2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, **or** the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /Jonathan Pollmann/	Date 2021-10-05
Name (Print/Typed) Jonathan Pollmann	Practitioner Registration Number 71702

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.**

☐ *Total of _____ forms are submitted.

US Conec EX1002
IPR2024-00119
U.S. Patent No. 11,415,760

Privacy Act Statement

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Filer:	Jonathan G. Pollmann/Meagan Fitzpatrick
Attorney Docket Number:	S03263

Filed as Small Entity

Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	80	80
UTILITY SEARCH FEE	2111	1	350	350
UTILITY EXAMINATION FEE	2311	1	400	400
REQUEST FOR PRIORITIZED EXAMINATION	2817	1	2100	2100
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	2202	2	50	100
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
PROCESSING FEE, EXCEPT PROV. APPLS.	2830	1	70	70
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**3100**

Electronic Acknowledgement Receipt

EFS ID:	43952490
Application Number:	17494291
International Application Number:	
Confirmation Number:	3410
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Customer Number:	152878
Filer:	Jonathan G. Pollmann/Meagan Fitzpatrick
Filer Authorized By:	Jonathan G. Pollmann
Attorney Docket Number:	S03263
Receipt Date:	05-OCT-2021
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Time Stamp:	15:28:14
Application Type:	Utility under 35 USC 111(a)

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Payment was successfully received in RAM	$3100
RAM confirmation Number	E202105F28284375
Deposit Account	
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Application.pdf	194815 dbeeca7b3b2f154ee73b2bce8af7e98be6e60753	yes	38
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	30	
	Claims		31	37	
	Abstract		38	38	
Warnings:					
Information:					
2	Application Data Sheet	ADS.PDF	1256716 c833c34bb38fb7c899796eba0f53cbd44834670c	no	9
Warnings:					
Information:					
3	Drawings-only black and white line drawings	Drawings.PDF	519535 5626d922ce75edabc55dc2da818f29c454cabe13	no	19
Warnings:					
Information:					
4	Oath or Declaration filed	TakanoDeclaration.PDF	114875 9782f2f0a331ac329d89a6f03e5e585843ddd4ad	no	1
Warnings:					
Information:					
5	Oath or Declaration filed	GniadekDeclaration.PDF	122789 7876c6fa452ae163ace80c1dbc3c9dffdff8b48f	no	1

Warnings:					
Information:					
6	TrackOne Request	TrackOneRequest.PDF	195245 7065c473a249855fce47e8c80de27be96ba40ef7	no	2
Warnings:					
Information:					
7	Fee Worksheet (SB06)	fee-info.pdf	51283 293c3c76df69c31c90e22f5eb7aa293437515ea4	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	2455258		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

CROSS-REFERENCE TO RELATED-APPLICATIONS

[0001] This application is a continuation of U.S. Patent Application No. 16/695,901 filed 11/26/2019 which is a continuation of U.S. Patent Application 16/213,244 filed 12/07/2018, which is a continuation of U.S. Patent Application No. 15/044,838 filed 02/16/2016, now U.S. Pat. No. 10,158,194 granted on 12/18/2018, which is a continuation-in-part of U.S. Patent Application No. 14/996,865 filed on 01/15/2016, now U.S Patent Number 9,595,786 granted on 03/14/2017, and Application No. 15/044,838 claim priority to International Application No. PCT/US16/13629 filed on 01/15/2016 and Taiwan Patent Application No. 105101374 filed on 01/18/2016, each of which are incorporated herein by reference in their entirety.

BACKGROUND

[0002] The present disclosure relates generally to connectors having remote release, and more specifically to narrow width adapters and connectors, such as narrow pitch distance LC duplex adapters and connectors with spring loaded remote release, and narrow width multi-fiber connectors.

[0003] The prevalence of the Internet has led to unprecedented growth in communication networks. Consumer demand

for service and increased competition has caused network providers to continuously find ways to improve quality of service while reducing cost.

[0004] Certain solutions have included deployment of high-density interconnect panels. High-density interconnect panels may be designed to consolidate the increasing volume of interconnections necessary to support the fast-growing networks into a compacted form factor, thereby increasing quality of service and decreasing costs such as floor space and support overhead. However, the deployment of high-density interconnect panels have not been fully realized.

[0005] In communication networks, such as data centers and switching networks, numerous interconnections between mating connectors may be compacted into high-density panels. Panel and connector producers may optimize for such high densities by shrinking the connector size and/or the spacing between adjacent connectors on the panel. While both approaches may be effective to increase the panel connector density, shrinking the connector size and/or spacing may also increase the support cost and diminish the quality of service.

[0006] In a high-density panel configuration, adjacent connectors and cable assemblies may obstruct access to the individual release mechanisms. Such physical obstructions may impede the ability of an operator to minimize the stresses applied

to the cables and the connectors. For example, these stresses may be applied when the user reaches into a dense group of connectors and pushes aside surrounding optical fibers and connectors to access an individual connector release mechanism with his/her thumb and forefinger. Overstressing the cables and connectors may produce latent defects, compromise the integrity and/or reliability of the terminations, and potentially cause serious disruptions to network performance.

[0007] While an operator may attempt to use a tool, such as a screwdriver, to reach into the dense group of connectors and activate the release mechanism, the adjacent cables and connectors may obstruct the operator's line of sight, making it difficult to guide the tool to the release mechanism without pushing aside the surrounding cables. Moreover, even when the operator has a clear line of sight, guiding the tool to the release mechanism may be a time-consuming process. Thus, using a tool may not be effective at reducing support time and increasing the quality of service.

[0008] Small Form Factor Pluggable Transceivers (SFP) are used presently in telecommunication infrastructures within rack mounted copper-to-fiber media converters, and are also known as Ethernet switches and/or patching hubs. These infrastructure Ethernet and fiber optic connections are evolving daily to increase connection density due to limited space for such equipment. Although fiber optic connectors have become smaller over the years,

they have not been designed to be any smaller than necessary to plug into commonly sized and readily available SFPs. However, as transceiver technologies develop, smaller SFPs will be used to create higher density switches and/or patching hub equipment. Accordingly, there is a need for fiber optic connectors that will meet the needs of future developments in smaller SFPs.

SUMMARY

[0009] Aspects of the present disclosure are directed to providing adapters and fiber optic connectors for future developments in smaller SFPs, including for example narrow pitch SFPs for LC type duplex connectors, as well as narrow width SFPs for MPO connectors. Aspects of the present disclosure also provide spring loaded remote release mechanisms to facilitate access and usage of the narrow pitch connectors in high density arrays or panels.

[0010] According to one aspect, there is provided a narrow width fiber optic connector comprising a multi-fiber connector, wherein a width of said narrow width fiber optic connector is less than about 12.4mm, a housing configured to hold the multi-fiber connector and further comprising a connector recess, and a pull tab having a ramp area configured to disengage a latch of one of an adapter and an SFP from said connector recess. The multi-fiber

connector may include a multi-fiber MT ferrule. In some embodiments, the width of said narrow width fiber optic connector may be less than or equal to about 9.6mm. The pull tab may include a spring configured to allow the latch of one of the adapter and the SFP to engage with the connector recess.

[0011] According to another aspect, there is provided a narrow pitch fiber optic connector comprising a plurality of LC connectors arranged such that a pitch of said narrow pitch connector is less than about 5.25mm, a housing configured to hold the plurality of LC connectors and further comprising a connector recess, and a pull tab having a ramp area configured to disengage a latch of one of an adapter and an SFP from said connector recess. In some embodiments, the pitch may be less than or equal to about 4.8mm. The pull tab may include a spring configured to allow the latch of one of the adapter and the SFP to engage with the connector recess. In some embodiments, the pull tab may include a distal end for remotely unlatching the narrow pitch connector. The narrow pitch connector may be a duplex connector. In some embodiments, the housing may include a bottom housing and a top housing coupled to the bottom housing. The bottom housing may include a side wall configured to open. The side wall may include a raised profile at a rear end thereof.

[0012] According to another aspect, there is provided a narrow pitch fiber optic connector comprising a plurality of LC

connectors arranged such that a pitch of said narrow pitch connector is less than about 5.25mm, a plurality of latching arms coupled to the plurality of LC connectors, a housing configured to hold the plurality of LC connectors, and a pull tab coupled to the plurality of latching arms and configured to remotely unlatch the narrow pitch connector. In some embodiments, the pitch may be less than or equal to about 4.8mm.

[0013] In some embodiments, the pull tab may include a spring configured to provide a force such that the latching arms return to an undisplaced position. The pull tab may include a distal end for remotely unlatching the narrow pitch connector and a proximal end configured to couple the pull tab to the plurality of latching arms. The proximal end may include a single prong configured to engage the plurality of latching arms. The proximal end may include a plurality of pins configured to slide along a semi-circular profile of the plurality of latching arms. In various embodiments, the narrow pitch connector is a duplex connector.

[0014] In various embodiments, the housing may include a bottom housing and a top housing coupled to the bottom housing. The bottom housing may include a side wall configured to open. The side wall may include a raised profile at a rear end thereof. The top housing may be configured to retain the pull tab. The pull tab may be further configured to be pushed down so as to

unlatch the narrow pitch connector without resulting in any horizontal movement of the pull tab.

[0015] According to another aspect, there is disclosed a duplex fiber optic connector comprising two LC connectors arranged such that a pitch of said duplex LC connector is less than about 5.25mm, and a pull tab coupled to said two LC connectors so as to remotely unlatch said duplex connector when pulled horizontally, wherein the pull tab is spring loaded. In one embodiment, the pitch may be less than or equal to about 4.8mm.

[0016] In some embodiments, the pull tab may include a proximal end configured to couple to respective latching arms of the two LC connectors. The duplex fiber optic connector may further comprise a housing having side walls configured to open. The housing may further comprise a top housing configured to receive the pull tab. The pull tab may be further configured to be pushed down so as to unlatch the duplex connector without resulting in any horizontal movement of the pull tab.

[0017] According to another aspect, there is disclosed a narrow pitch adapter comprising a recess configured to receive a duplex fiber optic connector having a pitch less than about 5.25mm. In some embodiments, the pitch may be less than or equal to about 4.8mm.

[0018] According to another aspect, there is disclosed a narrow width fiber optic connector comprising a multi-fiber

connector, wherein a width of said narrow width fiber optic connector is less than about 12.4mm, at least one latching arm coupled to the multi-fiber connector, a housing configured to hold the multi-fiber connector, and a pull tab coupled to the at least one latching arms and configured to remotely unlatch the narrow width connector. The multi-fiber connector may include a multi-fiber MT ferrule. In some embodiments, the width may be less than or equal to about 9.6mm. In some embodiments, the pull tab may include a spring configured to provide a force such that the at least one latching arm returns to an undisplaced position.

BRIEF DESCRIPTION OF THE DRAWINGS

[0019] FIG. 1A is a perspective view of a prior art standard 6.25mm pitch LC connector SFP;

[0020] FIG. 1B is a perspective view of a prior art standard 6.25mm pitch LC adapter;

[0021] FIG. 1C is a top view of the prior art adapter of FIG. 1B;

[0022] FIG. 1D is a front view of the prior art adapter of FIG. 1B, showing the 6.25mm pitch;

[0023] FIG. 2A is a perspective view of a prior art LC duplex connector;

[0024] FIG. 2B is a perspective view of a prior art LC duplex connector with a remote release pull tab;

[0025] FIG. 2C is a top view of a prior art LC connector used in the embodiments shown in FIGS. 2A and 2B;

[0026] FIG. 2D is a side view of the prior art LC connector of FIG. 2C;

[0027] FIG. 3 is a perspective view of a future narrow pitch LC SFP for receiving connectors disclosed herein according to aspects of the present disclosure;

[0028] FIG. 4A is a perspective view of one embodiment of a narrow pitch LC adapter according to aspects of the present disclosure;

[0029] FIG. 4B is a top view of the narrow pitch LC adapter of FIG. 4A;

[0030] FIG. 4C is a front view of the narrow pitch LC adapter of FIG. 4A, showing a 4.8mm pitch;

[0031] FIG. 5 is a perspective view of one embodiment of a narrow pitch LC duplex connector with remote release according to aspects of the present disclosure;

[0032] FIG. 6A is a top view of an LC connector used in the embodiment of FIG. 5 according to aspects of the present disclosure;

[0033] FIG. 6B is a side view of the LC connector of FIG. 6A according to aspects of the present disclosure;

[0034] FIG. 7 is a perspective view of narrow pitch LC duplex connector of FIG. 5, with the release mechanism being removed according to aspects of the present disclosure;

[0035] FIG. 8 is a perspective disassembled view of the narrow pitch LC duplex connector of FIG. 5 according to aspects of the present disclosure;

[0036] FIG. 9 is a perspective view of a prior art standard MPO SFP;

[0037] FIG. 10A is a perspective view of a prior art standard MPO connector;

[0038] FIG. 10B is a top view of the prior art MPO connector of FIG. 10A, having a width of 12.4mm;

[0039] FIG. 10C is a front view of the prior art MPO connector of FIG.10A;

[0040] FIG. 11 is a perspective view of a future narrow width multi-fiber SFP for receiving connectors disclosed herein according to aspects of the present disclosure;

[0041] FIG. 12A is a perspective view of one embodiment of a narrow width multi-fiber connector with remote release according to aspects of the present disclosure;

[0042] FIG. 12B is a top view of the narrow width multi-fiber connector of FIG. 12A, having a width of 9.6mm according to aspects of the present disclosure;

[0043] FIG. 12C is a front view of the narrow width multi-fiber connector of FIG. 12A according to aspects of the present disclosure;

[0044] FIG. 13A is a perspective view of a narrow width multi-fiber connector inserted into a narrow width SFP having an SFP latch according to aspects of the present disclosure;

[0045] FIG. 13B is a perspective view of a narrow width multi-fiber connector inserted into a narrow width adapter having an adapter latch according to aspects of the present disclosure;

[0046] FIG. 14 is a side view of a narrow width multi-fiber connector of FIG. 13A having a recess engaged with an SFP latch in a normal pull tab position according to aspects of the present disclosure; and

[0047] FIG. 15 is a side view of the narrow width multi-fiber connector of FIG. 13A, being disengaged from the SFP latch by retracting the pull tab according to aspects of the present disclosure.

DETAILED DESCRIPTION

[0048] This disclosure is not limited to the particular systems, devices and methods described, as these may vary. The terminology used in the description is for the purpose of describing the particular versions or embodiments only, and is not intended to limit the scope.

[0049] As used in this document, the singular forms "a," "an," and "the" include plural references unless the context clearly dictates otherwise. Unless defined otherwise, all technical and scientific terms used herein have the same meanings as commonly understood by one of ordinary skill in the art. Nothing in this disclosure is to be construed as an admission that the embodiments described in this disclosure are not entitled to antedate such disclosure by virtue of prior invention. As used in

this document, the term "comprising" means "including, but not limited to."

[0050] The following terms shall have, for the purposes of this application, the respective meanings set forth below.

[0051] A connector, as used herein, refers to a device and/or components thereof that connects a first module or cable to a second module or cable. The connector may be configured for fiber optic transmission or electrical signal transmission. The connector may be any suitable type now known or later developed, such as, for example, a ferrule connector (FC), a fiber distributed data interface (FDDI) connector, an LC connector, a mechanical transfer (MT) connector, an SC connector, an SC duplex connector, or a straight tip (ST) connector. The connector may generally be defined by a connector housing body. In some embodiments, the housing body may incorporate any or all of the components described herein.

[0052] A "fiber optic cable" or an "optical cable" refers to a cable containing one or more optical fibers for conducting optical signals in beams of light. The optical fibers can be constructed from any suitable transparent material, including glass, fiberglass, and plastic. The cable can include a jacket or sheathing material surrounding the optical fibers. In addition, the cable can be connected to a connector on one end or on both ends of the cable.

[0053] Various embodiments described herein generally provide a remote release mechanism such that a user can remove cable assembly connectors that are closely spaced together on a high density panel without damaging surrounding connectors, accidentally disconnecting surrounding connectors, disrupting transmissions through surrounding connectors, and/or the like. Various embodiments also provide narrow pitch LC duplex connectors and narrow width multi-fiber connectors, for use, for example, with future narrow pitch LC SFPs and future narrow width SFPs. The remote release mechanisms allow use of the narrow pitch LC duplex connectors and narrow width multi-fiber connectors in dense arrays of narrow pitch LC SFPs and narrow width multi-fiber SFPs.

[0054] FIG. 1A shows a perspective view of a prior art standard 6.25mm pitch LC connector SFP 100. The SFP 100 is configured to receive a duplex connector, and provides two receptacles 102, each for receiving a respective LC connector. The pitch 104 is defined as the axis-to-axis distance between the central longitudinal axes of each of the two receptacles 102. FIG. 1B shows a perspective view of a prior art standard 6.25mm pitch LC adapter 106. The adapter 106 is also configured to receive a duplex connector, and provides two receptacles 108, each for receiving a respective LC connector. FIG. 1C is a top view of the adapter 106 of FIG. 1B. The pitch 110 of the adapter 106 is defined similarly to that of the SFP 100, as the axis-to-axis

distance between the central longitudinal axes of each of the two receptacles 108, as illustrated in FIG. 1D, which shows a front view of the adapter 106.

[0055] FIG. 2A shows a prior art LC duplex connector 200 that may be used with the conventional SFP 100 and the conventional adapter 106. The LC duplex connector 200 includes two conventional LC connectors 202. FIG. 2B shows another prior art LC duplex connector 204 having a remote release pull tab 206, and including two conventional LC connectors 208. As shown, the remote release pull tab includes two prongs 210, each configured to couple to the extending member 212 of a respective LC connector 208. FIGS. 2C and 2D show top and side views, respectively, of the conventional LC connector 208, having a width of 5.6mm, and further showing the extending member 212.

[0056] Various embodiments disclosed herein are configured for use with a future SFP, such as the narrow pitch LC SFP 300 shown in FIG. 3, having a pitch less than that of conventional 6.25mm and 5.25mm pitches. Various embodiments utilize LC type fiber optic connectors in duplex arrangements (having transmitting and receiving fibers) but with a connector axis-to-axis distance that is less than the conventional 6.25mm and 5.25mm pitches, as described further below.

[0057] According to another aspect, there is disclosed embodiments of narrow pitch duplex LC adapters. FIGS. 4A to 4C

show one embodiment of a narrow pitch adapter 400. The narrow pitch adapter 400 has receptacles 402 on opposite ends thereof, configured for mating two narrow pitch LC duplex connectors according to aspects disclosed herein. FIG. 4B shows a top view of the adapter 400. FIG. 4C shows a front view, further illustrating that the adapter 400 has a pitch of 4.8 mm. The adapter 400 is configured to receive a duplex LC connector, with a pitch of the adapter corresponding to the axis-to-axis distance between the LC connectors of the LC duplex connector. Although the adapter 400 has a pitch of 4.8mm, various embodiments of narrow pitch adapters disclosed herein may have a different pitch that is less than that of the pitch of conventional adapters, for example less than 6.25mm and less than about 5.25mm. In some embodiments, the pitch may be about 4.8mm or less.

[0058] In addition to the need for narrow connectors, there is a need for remote unlatching of the narrow connectors used in dense narrow SFP arrays. This is because finger access to connectors is nearly impossible without disruption to the service of adjacent optical fibers. Although there are current designs of remotely unlatching fiber optic connectors, as shown for example in FIG. 2B, they have proven to be difficult to function as desired when plugged into the die cast construction that is typical of all SFP's. The die cast SFP is not one that is ever free of sharp edges and internal flashing (burrs) that can interfere with the

normal flexing motion of the plastic latches of the fiber optic connectors. The interference between metal edges and burrs may prevent the fiber optic connector's plastic latch from either becoming fully engaged or easily disengaged, especially with latches that are remotely triggered by pull tabs that project a distance behind the connector so as to keep fingers from disturbing adjacent optical fibers.

[0059] To make the latching/unlatching of the connectors from the SFP more reliable, various embodiments disclosed herein add a spring force to the remote latching component (pull tab), for example as shown and described in relation to FIGS. 5, 7, 8 and 12 below, to ensure that the connector latches are allowed to return to the undisplaced position and thereby become fully engaged inside the SFP's recess.

[0060] FIG. 5 shows one embodiment of a narrow pitch connector 500 according to aspects disclosed herein. The narrow pitch connector 500 is a duplex LC connector including two LC connectors 502. Each of the LC connectors 502 includes a respective ferrule 503 and a respective extending member or latching arm 504. The connector 500 has a pitch of 4.8mm, defined as the axis-to-axis distance between the central axes of the LC connectors 502. In other embodiments, the connector pitch may be less than that of the pitch of conventional connectors, for example less than 6.25mm

and less than about 5.25mm. In some embodiments, the pitch may be about 4.8mm or less.

[0061] The connector 500 further includes a housing 506 having a bottom housing 508 and a top housing 510. The bottom housing 508 includes side walls 512. In various embodiments, the housing of the connector may be a switchable housing. The side walls may be configured to open so as to facilitate opening of the housing, for example to change polarity of the connector. The side walls 512 may be raised towards the rear of the connector, as shown in FIG. 5. One advantage of raising the side walls towards the rear of the connector is easier access. In other embodiments, the side walls may be raised at another location.

[0062] The connector 500 further includes a pull tab 514 having a distal end 516 and a proximal end 518. The pull tab 514 further includes a spring 520 configured to provide a force such that the connector latching arms 504 return to the undisplaced position and thereby become fully engaged inside the SFP's recess. The distal end 516 of the pull tab 514 may be pulled to remotely release the connector 500 from an SFP or adapter. The proximal end 518 of the pull tab 514 is uniquely shaped so as to engage with the unique profile of the latching arms 504 of the narrow pitch LC connector 500. The proximal end 518 engages both latching arms 504 of the duplex LC connector 500. That is, the proximal end 518 includes a single prong configured to engage the latching

arms of both connectors 502. At the proximal end 518 of the pull tab 514 there are outwardly pointing pins 522 configured to rest directly above and slide along the semi-circular surface of latching arms 504 of the duplex LC connectors 502. The horizontal and rearward path direction of the pins 522 causes the semi-circular profile of the connector latching arms 504 to flex downward. Because the pins 522 are not contained inside ramped grooves of the connector latching arms 504, the pull tab 514 can also be pushed down at a location directly behind the LC connectors 502 rather than pulling the tab in a rearward motion from a remote distance behind the connectors, such as from the distal end 516. The action of pushing down the connectors' integral levers or latching arms 504 unlatches the connector 500. In some cases, the horizontal motion of the pull tab 514 may not be desirable. Thus, the connector latching arms 504 may be pushed down without resulting in a horizontal motion of the pull tab 514.

[0063] FIGS. 6A and 6B show top and side views, respectively, of the LC connector 502 of the narrow pitch connector 500. FIG. 6A further shows that the LC connector 502 has a width of 4.6mm. FIG. 6B shows the semi-circular profile of the latching arm 504.

[0064] FIG. 7 shows a partially disassembled view of the narrow pitch connector 500 of FIG. 5. The top housing 510 is separated from the bottom housing 508. The pull tab 514 is coupled to the top housing 510 and configured to slide longitudinally along

the length of the connector. The top housing 510 also includes a restraint 524 configured to receive the pull tab 514.

[0065] FIG. 8 shows a further disassembled view of the narrow pitch connector 500. Specifically, the pull tab 514 is shown to be separated from the top housing 510, and the spring 520 is removed from the pull tab. The pull tab 514 includes a longitudinal recess 526 configured to receive the spring 520, and at least one restraint 528 configured to retain the spring. The top housing 510 also includes a recess 530 configured to accommodate at least a portion of the pull tab 514, such as the spring 520 and the proximal end 518. In various embodiments, the pull tab may be removably coupled to the connector via the top housing.

[0066] FIG. 9 shows a perspective view of a prior art standard MPO SFP 900. The SFP 900 is configured to receive a standard MPO connector, and provides a receptacle 902 for receiving an MPO connector having a conventional width, as shown for example in FIGS. 10A to 10C.

[0067] FIG. 10A shows a perspective view of a conventional MPO connector 1000. As shown in FIG. 10B, the conventional MPO connector 1000 has a width of 12.4mm. FIG. 10C shows a front view of the MPO connector 1000.

[0068] FIG. 11 shows an embodiment of a future narrow width multi-fiber SFP 1100 according to aspects of the present

disclosure. Various embodiments disclosed herein are configured for use with the narrow width multi-fiber SFP 1100, having a width less than that of conventional MPO connectors, that is less than about 12.4mm. The narrow width multi-fiber SFP has a receptacle 1102 configured to receive a narrow width multi-fiber connector, such as a narrow width connector having an MT ferrule.

[0069] FIG. 12A shows one embodiment of a narrow width connector 1200 according to aspects disclosed herein. The narrow width connector 1200 is a multi-fiber connector including a multi-fiber MT/MPO ferrule 1202. The connector 1200 includes two extending members or latching arms 1204. In other embodiments, the connector may include at least one latching arm. The connector 1200 has a width of 9.6mm, as shown in the top view of the connector 1200 in FIG. 12B. In other embodiments, the connector width may be less than that of the width of conventional multi-fiber connectors, for example less than the 12.4mm of the conventional MPO connector shown in FOG. 10B. In some embodiments, the width may be about 9.6mm or less.

[0070] The connector 1200 further includes a housing 1206 having a bottom housing 1208 and a top housing 1210. The bottom housing 1208 includes side walls 1212. In various embodiments, the housing of the connector may be a switchable housing. The side walls may be configured to open so as to facilitate opening of the housing, for example to change polarity of the connector.

The side walls 1212 may be raised towards the rear of the connector. One advantage of raising the side walls towards the rear of the connector is easier access. The side walls may also be raised at another location.

[0071] The connector 1200 further includes a pull tab 1214 having a distal end 1216 and a proximal end 1218. The pull tab 1214 further includes a spring 1220 configured to provide a force such that the connector latching arms 1204 return to the undisplaced position and thereby become fully engaged inside the SFP's recess. The distal end 1216 of the pull tab 1214 may be pulled to remotely release the connector 1200 from an SFP or adapter. The proximal end 1218 of the pull tab 1214 is uniquely shaped so as to engage with the unique profile of the latching arms 1204 of the narrow width multi-fiber connector 1200. The proximal end 1218 engages both latching arms 1204 of the multi-fiber connector 1200. That is, the proximal end 1218 includes a single prong configured to engage the latching arms 1204. At the proximal end 1218 of the pull tab 1214 there are outwardly pointing pins 1222 configured to rest directly above and slide along the semi-circular surface of latching arms 1204. The horizontal and rearward path direction of the pins 1222 causes the semi-circular profile of the connector latching arms 1204 to flex downward. Because the pins 1222 are not contained inside ramped grooves of the connector latching arms 1204, the pull tab 1214 can also be

pushed down at a location directly behind the latching arms 1204 rather than pulling the tab in a rearward motion from a remote distance behind the connector, such as from the distal end 1216. The action of pushing down the connector's integral levers or latching arms 1204 unlatches the connector 1200. In some cases, the horizontal motion of the pull tab 1214 may not be desirable. Thus, the connector latching arms 1204 may be pushed down without resulting in a horizontal motion of the pull tab 1214.

[0072] FIGS. 12B and 12C show top and front views, respectively, of the narrow width multi-fiber connector 1200. FIG. 12B further shows that the connector 1200 has a width of 9.6mm.

[0073] In various embodiments described above, the narrow width connectors have latching arms configured to engage with a fixed or immovable recess within a narrow width SFP or a narrow width adapter. In these embodiments, the pull tab of the connector displaces the flexible latching arm of the connector so as to disengage the latching arm from the recess of the SFP or the adapter. For example, the latching arms bend down as the pull tab is pulled back, so as to disengage the connector from the SFP or the adapter.

[0074] In other embodiments, as further described for example in relation with FIGS. 13 to 15 below, the remote latch release pull tab may be configured to couple with a latch or a hook within the adapter or the SFP. In these embodiments, the flexible

latching arm of the connector is moved into the main cavity of the SFP or the adapter, and the latch of the SFP or the adapter engages a recess of the connector when the pull tab is in a normal location that is pushed forward by a spring. The pull tab may be configured to have a ramp area such that when the pull tab is pulled back, the latch of the SFP or the adapter is lifted by the retracted pull tab, thereby disengaging the latch of the SFP or the adapter from the connector.

[0075] FIG. 13A shows a narrow pitch multi-fiber connector 1300 inserted into a narrow pitch SFP 1302 such that a recess of the connector engages an SFP latch. FIG. 13B shows the narrow pitch connector 1300 inserted into a narrow pitch adapter 1304 such that a recess of the connector engages a latch of the adapter.

[0076] FIG. 14 shows a side view of the narrow width connector 1300 of FIG. 13A coupled to the narrow width SFP 1302. Details of the coupling are shown within the circle 1400. Specifically, the SFP 1302 includes an SFP latch 1402. The connector 1300 includes a recess 1404. For example, the connector housing may comprise a recess 1404. The pull tab 1406 may be spring loaded as described in relation to various embodiments. This allows the pull tab 1406 to return to a position that will allow the SFP latch 1402 to engage with the connector recess 1404. When the pull tab 1406 is in the normal pull tab location, that is pushed forward by a spring, as shown in FIG. 14, the SFP latch

1402 is engaged with the connector recess 1404 as illustrated within the circle 1400.

[0077] FIG. 15 shows a side view of the narrow width connector 1300 of FIG. 13A as it is disengaged from the narrow width SFP 1302. Details of the decoupling are shown within the circle 1500. The pull tab 1406 includes a taper or a ramp area 1502. As the pull tab 1406 is pulled back in the direction of the arrow 1504 as shown, the SFP latch 1402 is lifted by the ramp area of the retracted pull tab, thereby disengaging the SFP latch 1402 from the connector as illustrated within the circle 1500. The same effect described herein in conjunction with FIG. 15 also occurs in other embodiments of connectors coupled to a narrow width adapter as shown for example in FIG. 13A.

[0078] Although FIGS. 14 and 15 illustrate coupling of the connector to a narrow width SFP, in other embodiments of the connector may be coupled to a narrow width adapter having an adapter latch, similar to that of the SFP latch. Further, although the embodiments shown in FIGS. 13 to 15 include a narrow width multi-fiber connector, embodiments also work with narrow pitch LC connectors.

[0079] In the above detailed description, reference is made to the accompanying drawings, which form a part hereof. In the drawings, similar symbols typically identify similar components, unless context dictates otherwise. The illustrative embodiments

described in the detailed description, drawings, and claims are not meant to be limiting. Other embodiments may be used, and other changes may be made, without departing from the spirit or scope of the subject matter presented herein. It will be readily understood that the aspects of the present disclosure, as generally described herein, and illustrated in the Figures, can be arranged, substituted, combined, separated, and designed in a wide variety of different configurations, all of which are explicitly contemplated herein.

[0080] The present disclosure is not to be limited in terms of the particular embodiments described in this application, which are intended as illustrations of various aspects. Many modifications and variations can be made without departing from its spirit and scope, as will be apparent to those skilled in the art. Functionally equivalent methods and apparatuses within the scope of the disclosure, in addition to those enumerated herein, will be apparent to those skilled in the art from the foregoing descriptions. Such modifications and variations are intended to fall within the scope of the appended claims. The present disclosure is to be limited only by the terms of the appended claims, along with the full scope of equivalents to which such claims are entitled. It is to be understood that this disclosure is not limited to particular methods, reagents, compounds, compositions or biological systems, which can, of course, vary.

It is also to be understood that the terminology used herein is for the purpose of describing particular embodiments only, and is not intended to be limiting.

[0081] With respect to the use of substantially any plural and/or singular terms herein, those having skill in the art can translate from the plural to the singular and/or from the singular to the plural as is appropriate to the context and/or application. The various singular/plural permutations may be expressly set forth herein for sake of clarity.

[0082] It will be understood by those within the art that, in general, terms used herein, and especially in the appended claims (for example, bodies of the appended claims) are generally intended as "open" terms (for example, the term "including" should be interpreted as "including but not limited to," the term "having" should be interpreted as "having at least," the term "includes" should be interpreted as "includes but is not limited to," et cetera). While various compositions, methods, and devices are described in terms of "comprising" various components or steps (interpreted as meaning "including, but not limited to"), the compositions, methods, and devices can also "consist essentially of" or "consist of" the various components and steps, and such terminology should be interpreted as defining essentially closed-member groups. It will be further understood by those within the art that if a specific number of an introduced claim recitation is

intended, such an intent will be explicitly recited in the claim, and in the absence of such recitation no such intent is present. For example, as an aid to understanding, the following appended claims may contain usage of the introductory phrases "at least one" and "one or more" to introduce claim recitations. However, the use of such phrases should not be construed to imply that the introduction of a claim recitation by the indefinite articles "a" or "an" limits any particular claim containing such introduced claim recitation to embodiments containing only one such recitation, even when the same claim includes the introductory phrases "one or more" or "at least one" and indefinite articles such as "a" or "an" (for example, “a” and/or “an” should be interpreted to mean “at least one” or “one or more”); the same holds true for the use of definite articles used to introduce claim recitations. In addition, even if a specific number of an introduced claim recitation is explicitly recited, those skilled in the art will recognize that such recitation should be interpreted to mean at least the recited number (for example, the bare recitation of "two recitations," without other modifiers, means at least two recitations, or two or more recitations). Furthermore, in those instances where a convention analogous to “at least one of A, B, and C, et cetera” is used, in general such a construction is intended in the sense one having skill in the art would understand the convention (for example, “ a system having

at least one of A, B, and C" would include but not be limited to systems that have A alone, B alone, C alone, A and B together, A and C together, B and C together, and/or A, B, and C together, et cetera). In those instances where a convention analogous to "at least one of A, B, or C, et cetera" is used, in general such a construction is intended in the sense one having skill in the art would understand the convention (for example, " a system having at least one of A, B, or C" would include but not be limited to systems that have A alone, B alone, C alone, A and B together, A and C together, B and C together, and/or A, B, and C together, et cetera). It will be further understood by those within the art that virtually any disjunctive word and/or phrase presenting two or more alternative terms, whether in the description, claims, or drawings, should be understood to contemplate the possibilities of including one of the terms, either of the terms, or both terms. For example, the phrase "A or B" will be understood to include the possibilities of "A" or "B" or "A and B."

[0083] In addition, where features or aspects of the disclosure are described in terms of Markush groups, those skilled in the art will recognize that the disclosure is also thereby described in terms of any individual member or subgroup of members of the Markush group.

[0084] As will be understood by one skilled in the art, for any and all purposes, such as in terms of providing a written

description, all ranges disclosed herein also encompass any and all possible subranges and combinations of subranges thereof. Any listed range can be easily recognized as sufficiently describing and enabling the same range being broken down into at least equal halves, thirds, quarters, fifths, tenths, et cetera As a non-limiting example, each range discussed herein can be readily broken down into a lower third, middle third and upper third, et cetera As will also be understood by one skilled in the art all language such as "up to," "at least," and the like include the number recited and refer to ranges which can be subsequently broken down into subranges as discussed above. Finally, as will be understood by one skilled in the art, a range includes each individual member. Thus, for example, a group having 1-3 cells refers to groups having 1, 2, or 3 cells. Similarly, a group having 1-5 cells refers to groups having 1, 2, 3, 4, or 5 cells, and so forth.

[0085] Various of the above-disclosed and other features and functions, or alternatives thereof, may be combined into many other different systems or applications. Various presently unforeseen or unanticipated alternatives, modifications, variations or improvements therein may be subsequently made by those skilled in the art, each of which is also intended to be encompassed by the disclosed embodiments.

CLAIMS

1. An optical fiber connector configured for mating with a receptacle, the optical fiber connector comprising:

an MT ferrule configured to hold a plurality of optical fibers;

a connector housing having a front end portion and a rear end portion spaced apart along a longitudinal axis, the connector housing configured to hold the MT ferrule such that the MT ferrule is exposed through the front end portion for making an optical connection;

a depressible latching arm connected to the connector housing for latching with the receptacle when the optical fiber connector is mated with the receptacle to releasably retain the optical fiber connector in the receptacle; and

a remote release connected to the connector housing for movement relative to the connector housing along the longitudinal axis, the remote release being configured to be pulled rearward along the longitudinal axis to depress the depressible latching arm for releasing the optical fiber connector from the receptacle.

2. The optical fiber connector as set forth in claim 1, wherein the connector housing has a generally rectangular perimeter including opposite first and second walls and opposite third and fourth walls, the depressible latching arm being located on an exterior of the first wall.

3. The optical fiber connector as set forth in claim 2, wherein the depressible latching arm has a front end portion and a rear end portion spaced apart along the longitudinal axis, the depressible latching arm extending transversely outward away from the first wall as the depressible latching arm extends longitudinally from the front end portion to the rear end portion.

4. The optical fiber connector as set forth in claim 3, wherein the optical fiber connector is free of depressible latching arms on an exterior of any of the second, third, and fourth walls.

5. The optical fiber connector as set forth in claim 2, wherein the first wall of the connector housing defines a groove, the remote release being slidably received in the groove.

6. The optical fiber connector as set forth in claim 5, wherein the remote release comprises a lower portion and an

upper portion, the lower portion being wider than the upper portion.

7. The optical fiber connector as set forth in claim 6, wherein groove includes an inner portion and an outer portion, the inner portion being wider than the outer portion, the inner portion of the groove being configured to slidably receive the lower portion of the latch release and the outer portion of the groove being configured to slidably receive the upper portion of the latch release such that the first wall releasably retains the latch release in the groove.

8. The optical fiber connector as set forth in claim 1, wherein the optical fiber connector is configured so that upon release of the remote release after being pulled rearward along the longitudinal axis to depress the depressible latching arm, the depressible latching arm resiliently returns toward an un-depressed position.

9. The optical fiber connector as set forth in claim 1, wherein the depressible latching arm is a first depressible latching arm, the optical fiber connector further comprising a second depressible latching arm spaced apart from the first depressible latching arm.

10. The optical fiber connector as set forth in claim 9, wherein the remote release is further configured to depress the second depressible latching arm when the remote release is pulled rearward along the longitudinal axis.

11. The optical fiber connector as set forth in claim 9, wherein the remote release comprises a first edge for engaging the first depressible latching arm and a second edge for engaging the second depressible latching arm, the first and second edges being spaced apart from one another.

12. The optical fiber connector as set forth in claim 11, wherein the remote release further comprises an elongate section between the first edge and the second edge.

13. The optical fiber connector as set forth in claim 1, wherein the remote release comprises a front section and wherein the optical fiber connector is configured such that the front section is yieldably biased forward along the longitudinal axis.

14. The optical fiber connector as set forth in claim 13, further comprising a resilient biasing member engaging the front section of the remote release to yieldably bias the remote release forward.

15. The optical fiber connector as set forth in claim 14, wherein the depressible latching arm is configured to engage the

front section of the remote release at a first point of contact and the resilient biasing member is configured to engage the front section of the remote release at a second point of contact, the second point of contact being rearwardly spaced apart from the first point of contact along the longitudinal axis.

16. The optical fiber connector as set forth in claim 1, wherein the MT ferrule is configured to receive a plurality of fibers such that the fibers are spaced apart in a row that extends parallel to a fiber alignment axis, the MT ferrule comprising first and second guide pin openings spaced apart along the fiber alignment axis.

17. The optical fiber connector as set forth in claim 16, wherein the optical fiber connector has an outer cross-sectional dimension along the fiber alignment axis and wherein the outer cross-sectional dimension is less than an outer cross-sectional dimension of a standard MPO connector along a fiber alignment axis of the standard MPO connector.

18. The optical fiber connector as set forth in claim 1, wherein the connector housing is configured to enable a polarity of the optical fiber connector to be selectively reversed.

19. An optical connection system comprising the optical fiber connector as set forth in claim 1 and a receptacle for mating with the optical fiber connector.

20. The optical connection system as set forth in claim 19, wherein the receptacle comprises a rectangular perimeter wall.

21. The optical connection system as set forth in claim 20, wherein the receptacle includes a recess, the depressible latching arm being configured to latch with the recess when the optical fiber connector and the receptacle are mated.

22. An optical receptacle comprising:

a rectangular perimeter wall having a first end portion and a second end portion spaced apart along a longitudinal axis, the rectangular perimeter wall comprising a recess adjacent the first end portion and defining a port opening through the first end portion, the rectangular perimeter wall being configured to be disposed in relation to a first MT ferrule such that first MT ferrule is located adjacent to the second end portion and an optical connection to the first MT ferrule can be made through the port;

wherein the optical receptacle is configured so that an optical fiber connector can be plugged into the port; and

wherein when the optical fiber connector is plugged into the port, the optical receptacle is configured so that (i) the recess latches with a depressible latching arm on one side of the optical fiber connector; (ii) one side of the rectangular perimeter wall slidably engages a side of the optical fiber connector opposite the depressible latching arm without latching; and (iii) an optical connection is made between the first MT ferrule and a second MT ferrule of the optical fiber connector.

ABSTRACT

Narrow width fiber optic connectors having spring loaded remote release mechanisms to facilitate access and usage of the connectors in high density arrays. A narrow width fiber optic connector comprises a multi-fiber connector, wherein a width of said narrow width fiber optic connector is less than about 5.25mm, a housing configured to hold the multi-fiber connector and further comprising a connector recess, and a pull tab having a ramp area configured to disengage a latch of one of an adapter and an SFP from said connector recess. The pull tab may include a spring configured to allow the latch of one of the adapter and the SFP to engage with the connector recess.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	S03263
	Application Number	
Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

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Application Information:

Title of the Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE		
Attorney Docket Number	S03263	**Small Entity Status Claimed**	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	19	**Suggested Figure for Publication (if any)**	5

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Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

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Prior Application Status	Pending	Remove

Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	16695901	2019-11-26

Prior Application Status	Patented	Remove

Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16695901	Continuation of	16213244	2018-02-07	10520690	2019-12-31

Prior Application Status	Patented	Remove

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16213244	Continuation of	15044838	2016-02-16	10158194	2018-12-18

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15044838	Continuation in part of	14996865	2016-01-15	9595786	2017-03-14

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Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
PCT/US16/13629	WO	2016-01-15	

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105101374	TW	2016-01-18	

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Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	S03263
	Application Number	
Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

PTO/AIA/14 (02-18)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	S03263
	Application Number	
Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 — Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

● Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.	Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	Senko Advanced Components Inc.		
Mailing Address Information For Applicant:			
Address 1	450 Donald Lynch Blvd, Unit D		
Address 2			
City	Marlborough	**State/Province**	MA
Country	US	Postal Code	01752
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	S03263
	Application Number	
Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Jonathan Pollmann/			Date (YYYY-MM-DD)	2021-10-05
First Name	Jonathan	Last Name	Pollmann	Registration Number	71,702

Additional Signature may be generated within this form by selecting the Add button. Add

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	S03263
	Application Number	
Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent CooperationTreaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

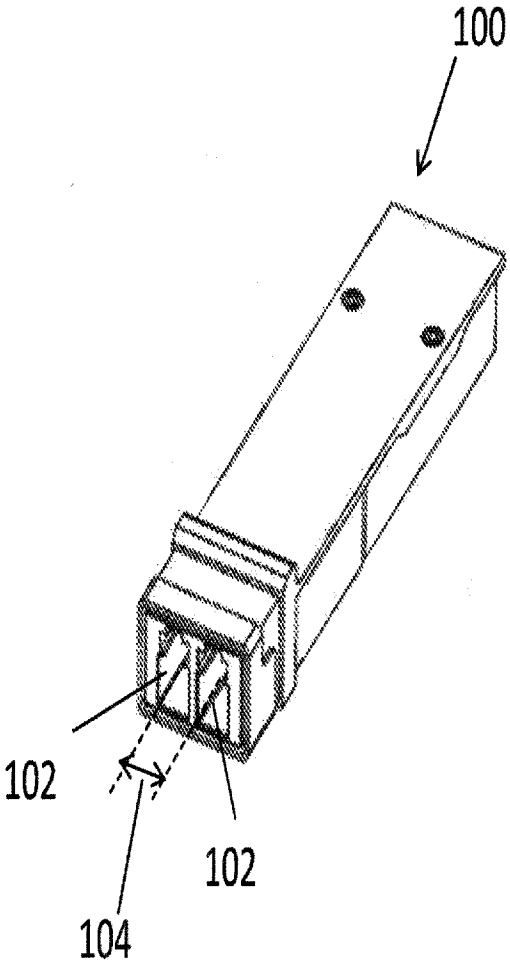


FIG. 1A
(Prior Art)

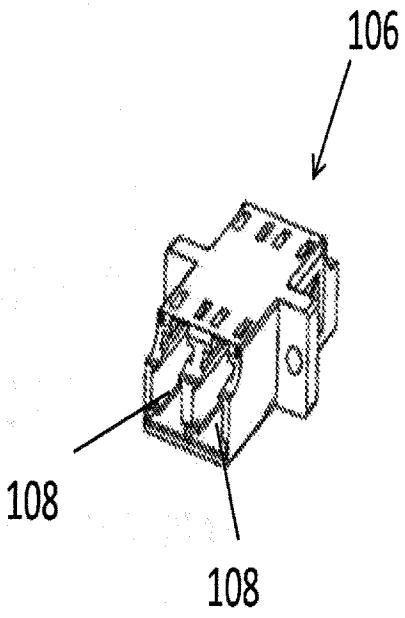


FIG. 1B
(Prior Art)

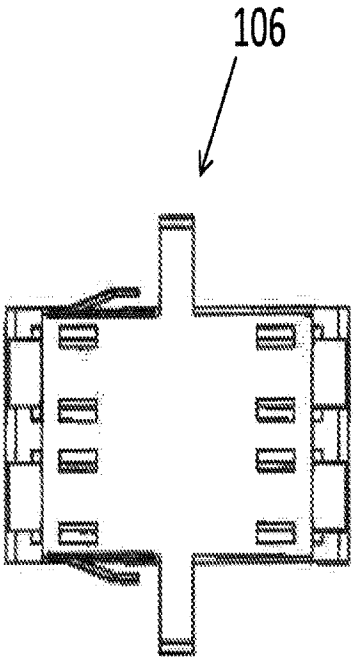


FIG. 1C
(Prior Art)

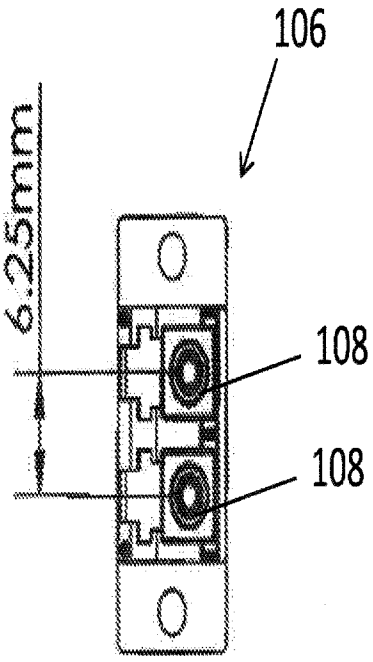


FIG. 1D
(Prior Art)

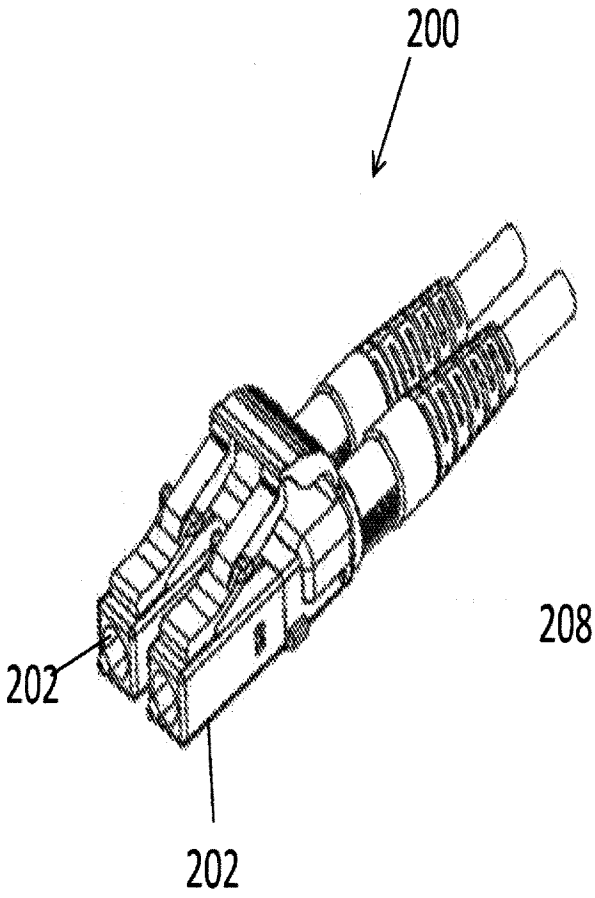


FIG. 2A
(Prior Art)

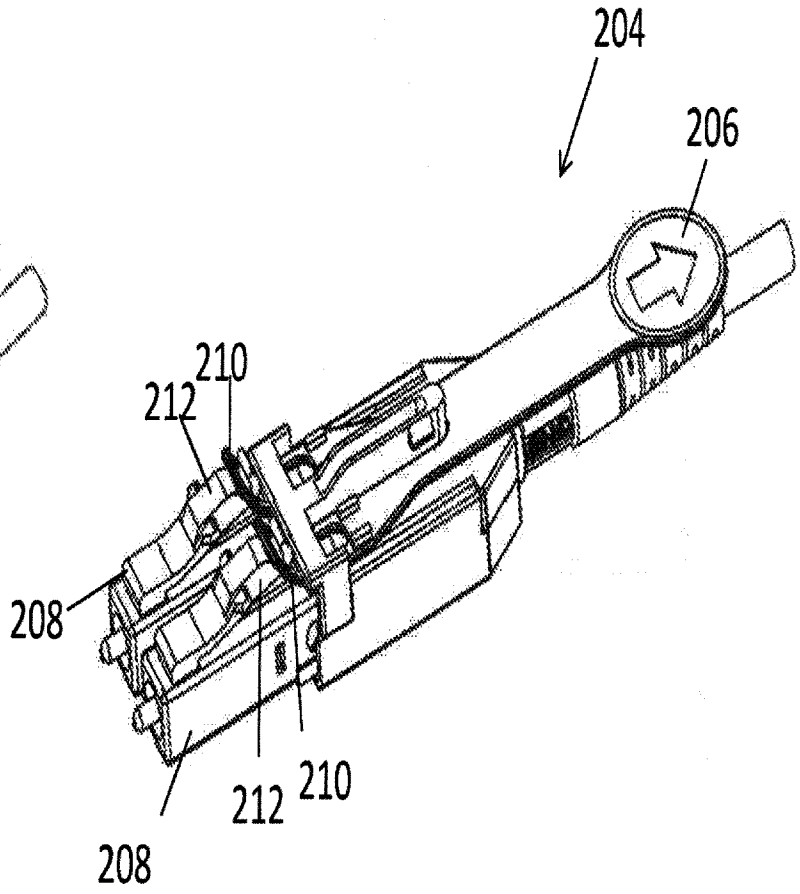


FIG. 2B
(Prior Art)

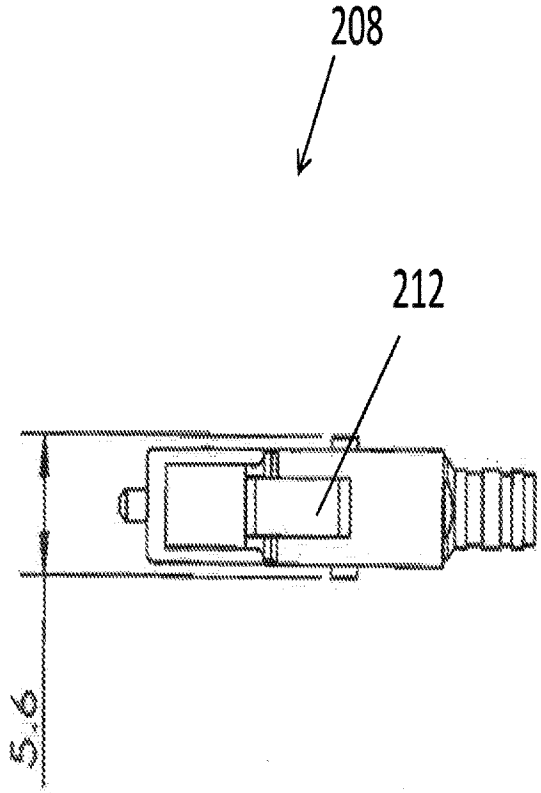


FIG. 2C
(Prior Art)

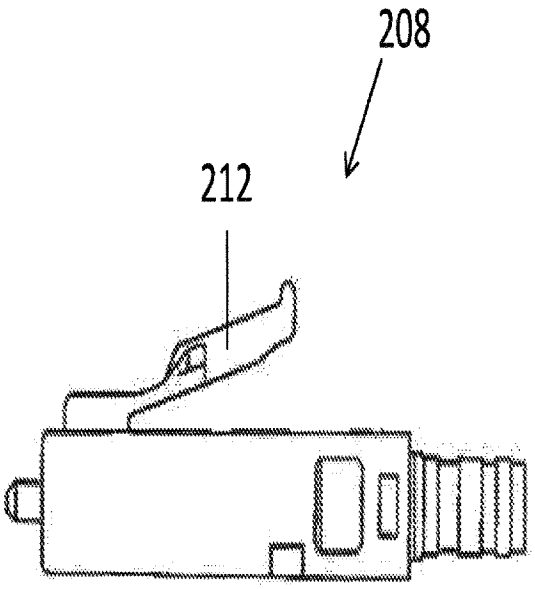


FIG. 2D
(Prior Art)

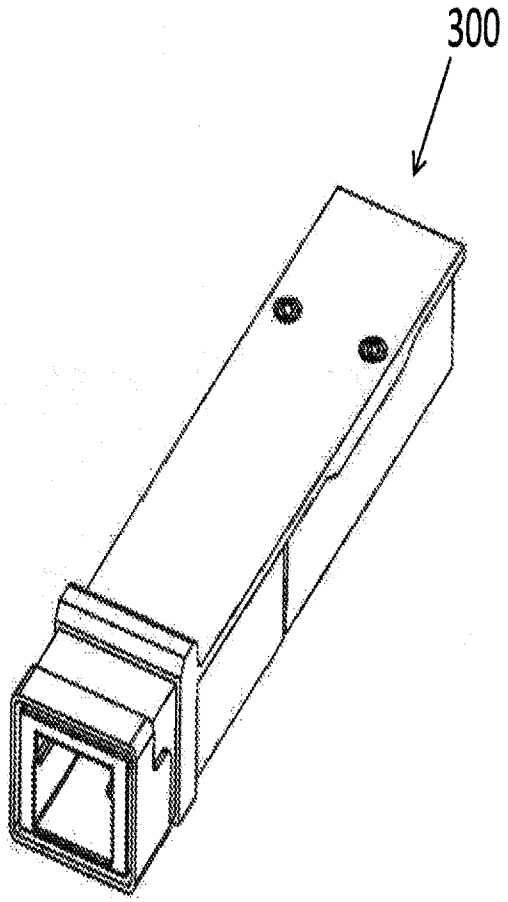


FIG. 3

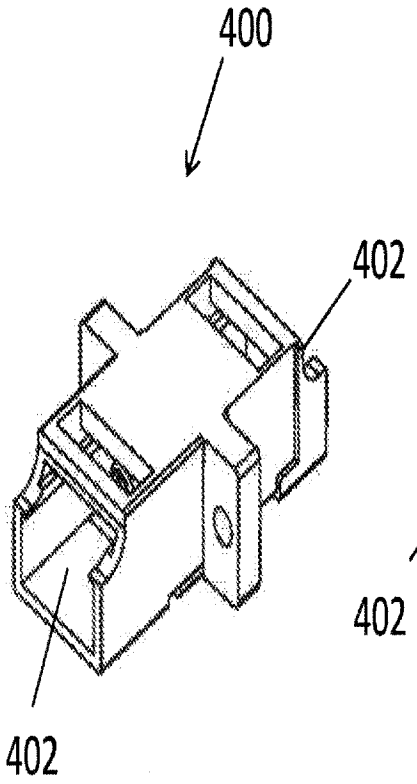


FIG. 4A

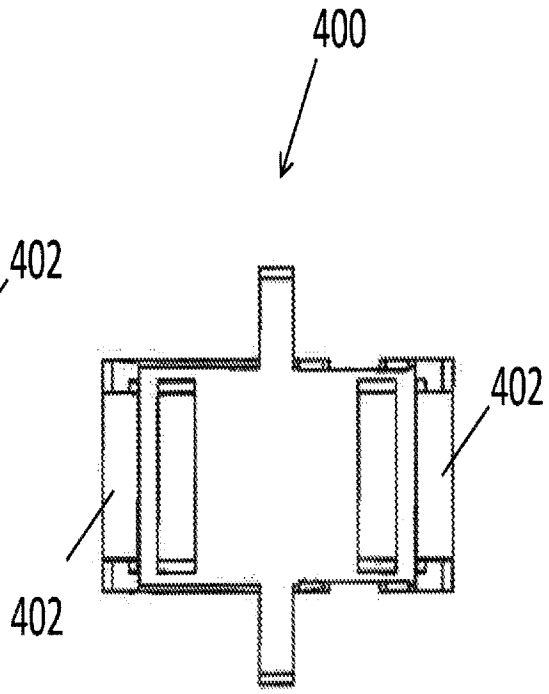


FIG. 4B

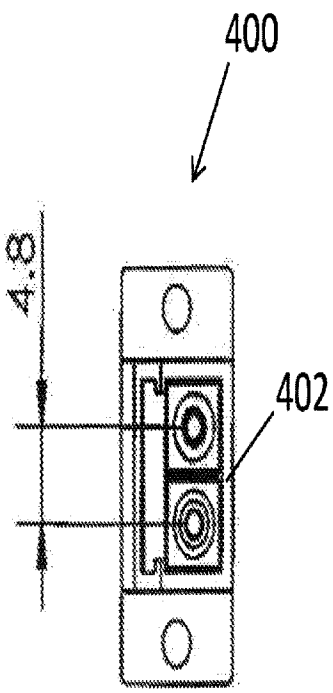


FIG. 4C

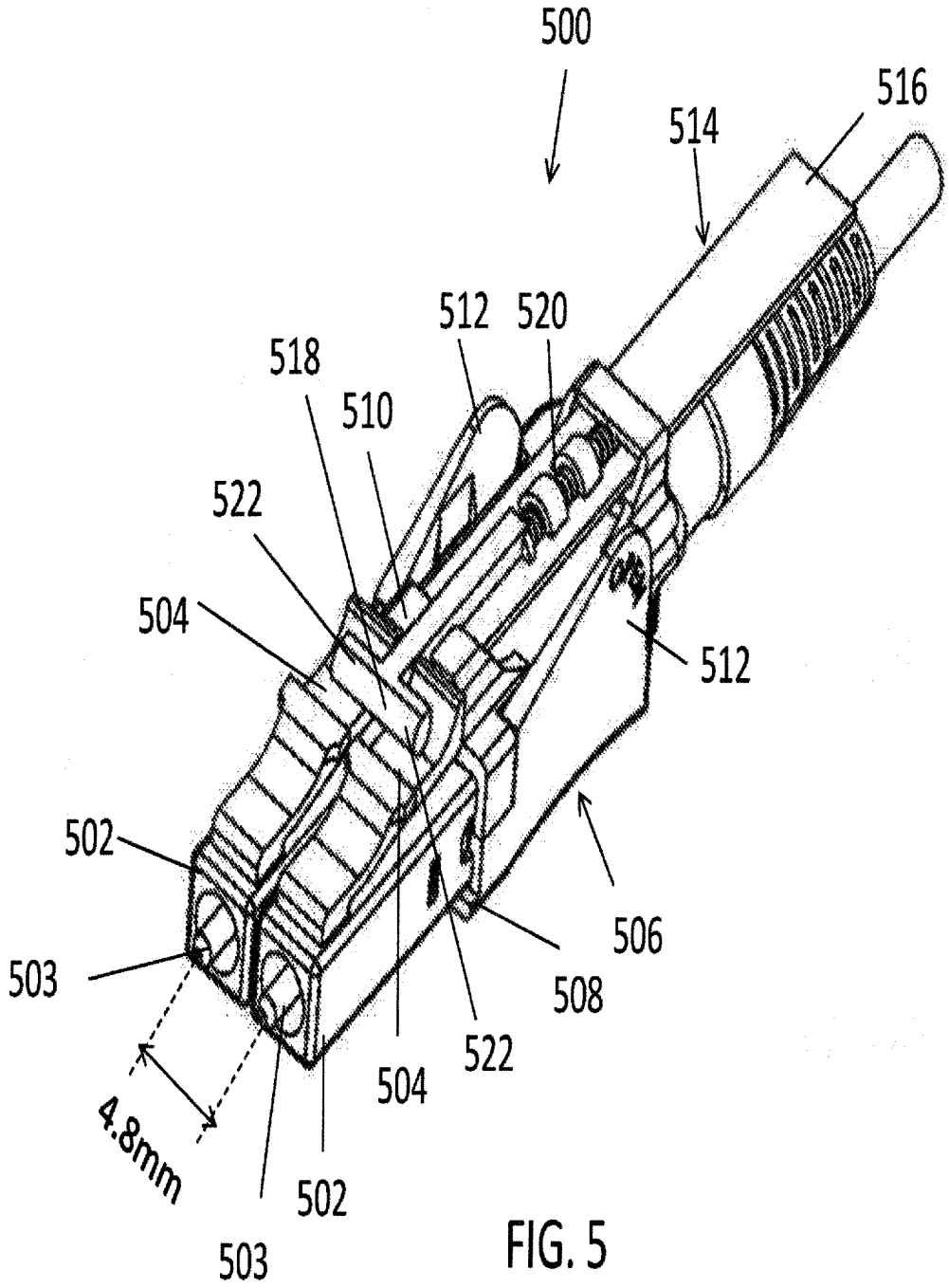

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FIG. 5

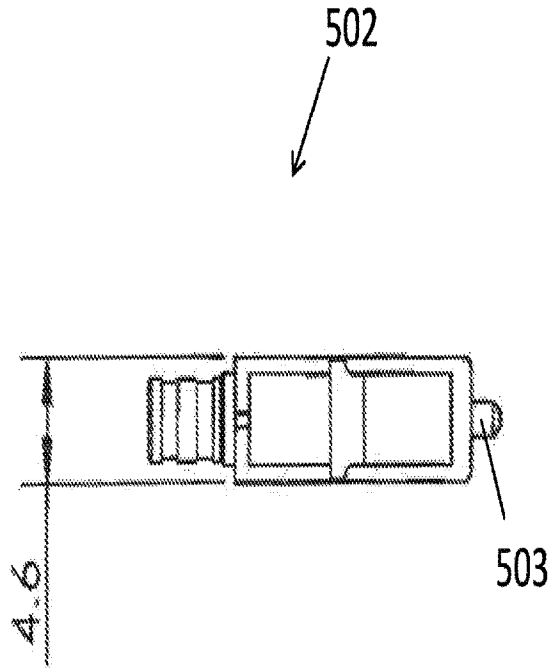


FIG. 6A

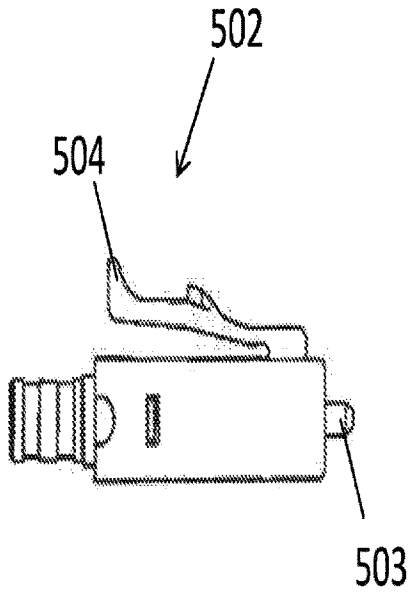


FIG. 6B

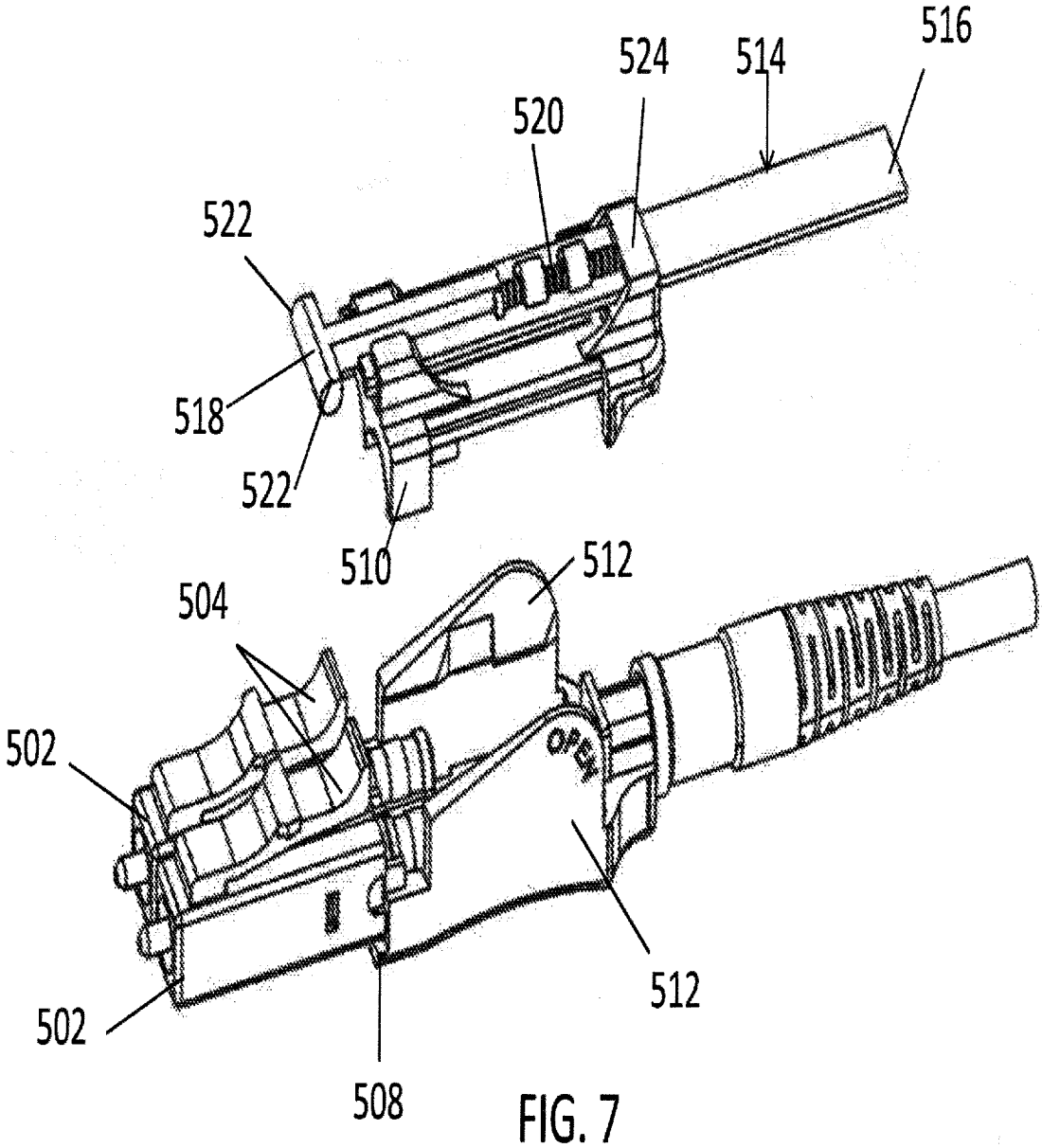


FIG. 7

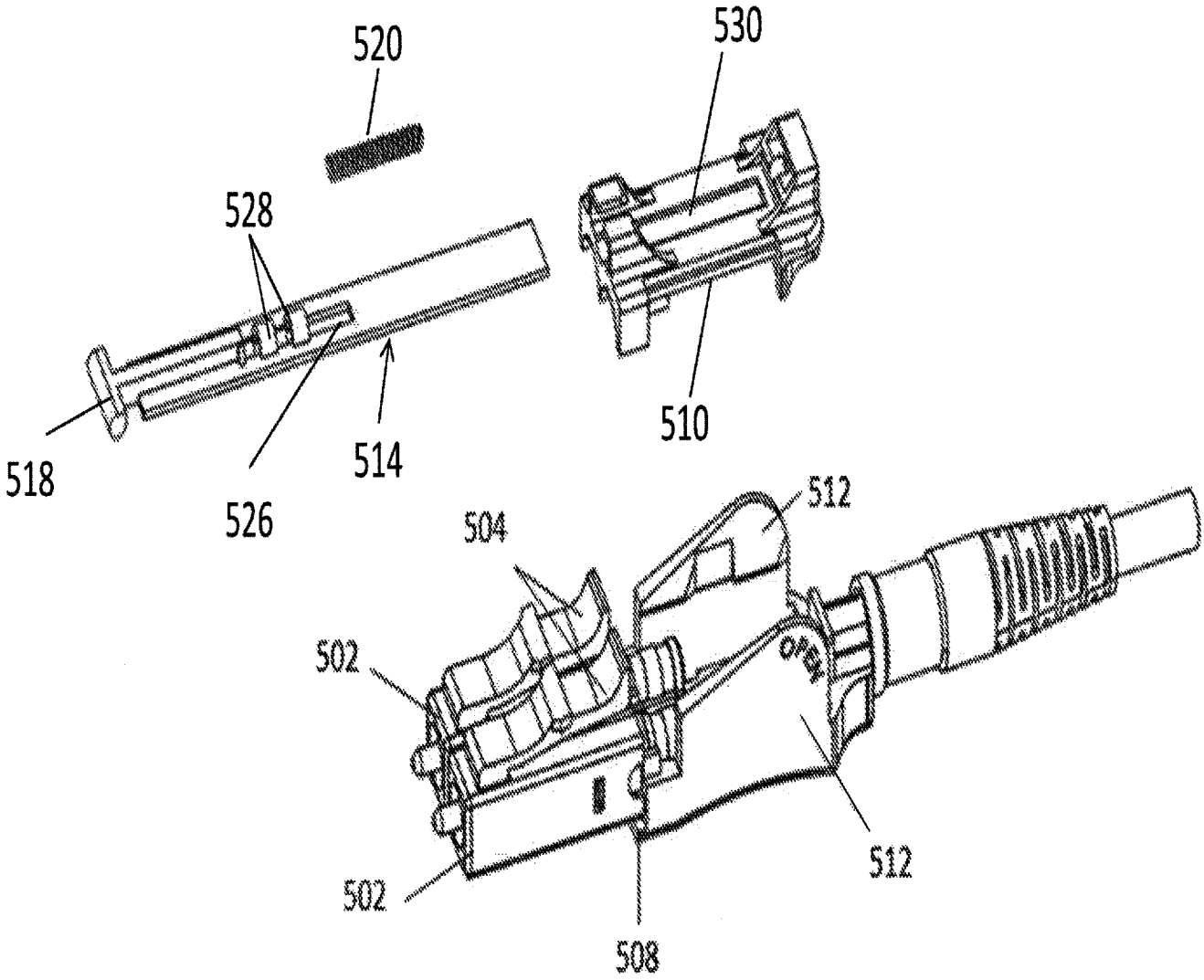


FIG. 8

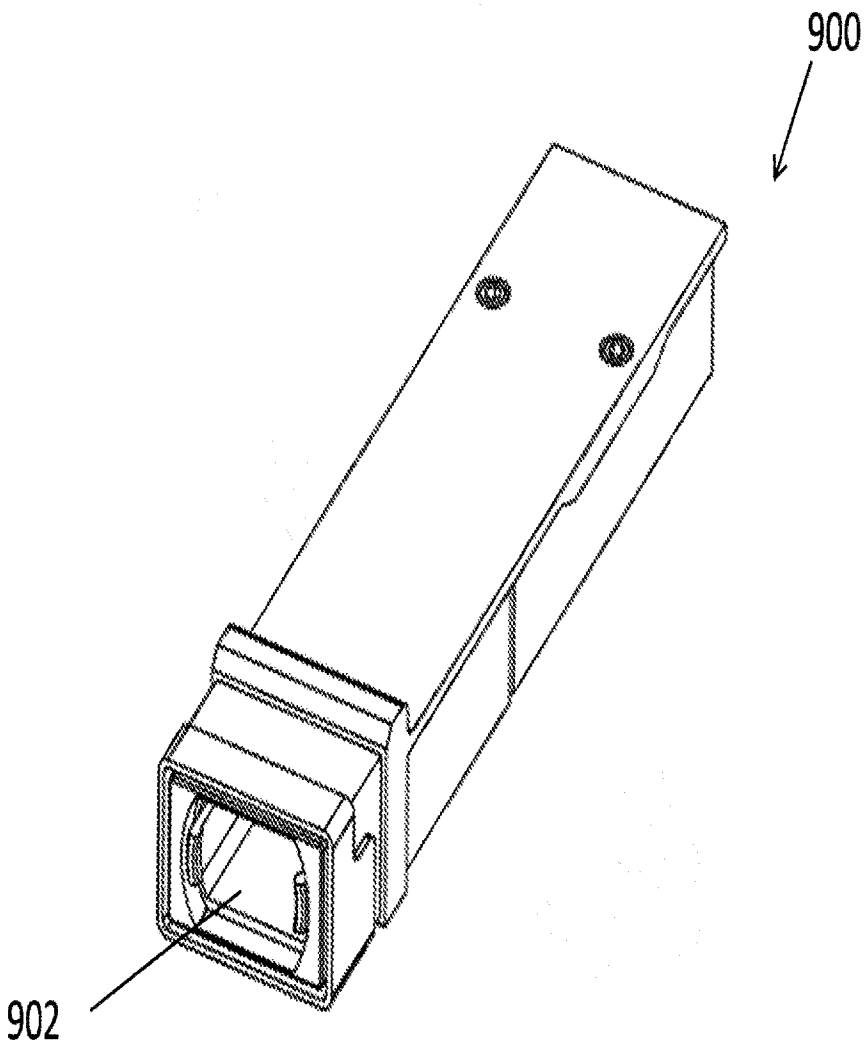


FIG. 9
(Prior Art)

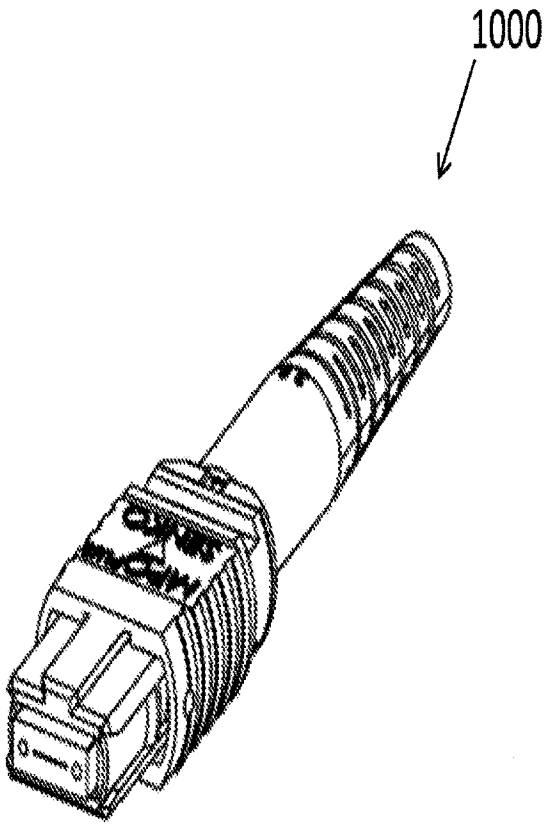


FIG. 10A
(Prior Art)

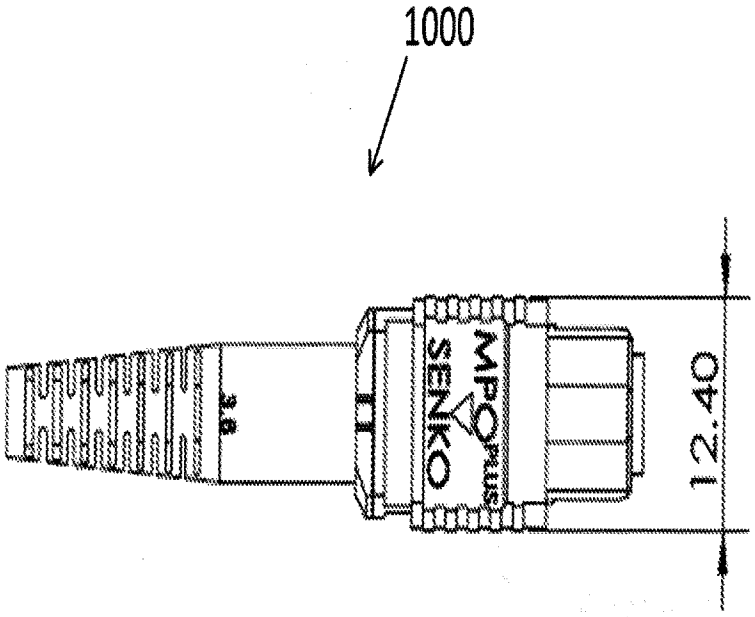


FIG. 10B
(Prior Art)



FIG. 10C
(Prior Art)

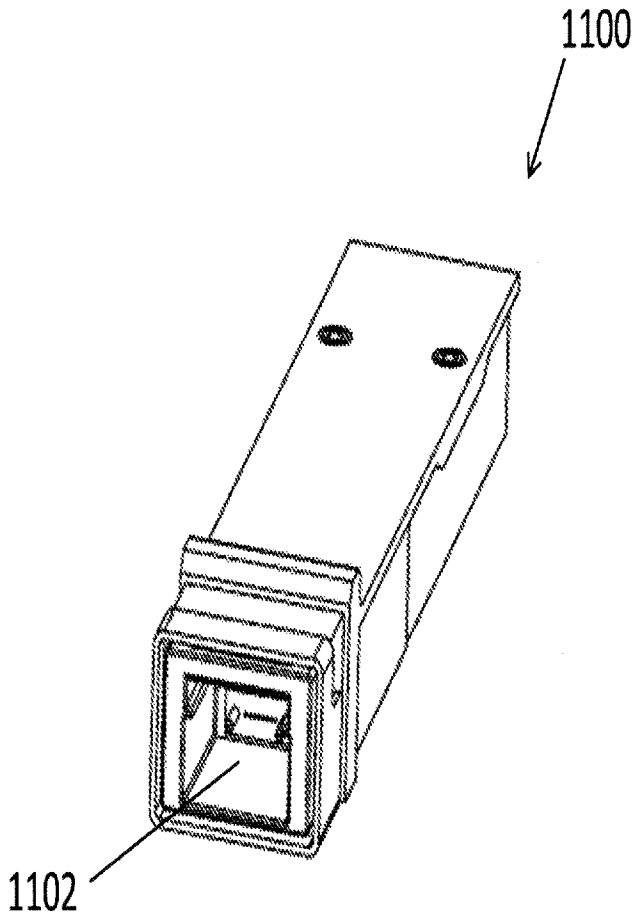


FIG. 11

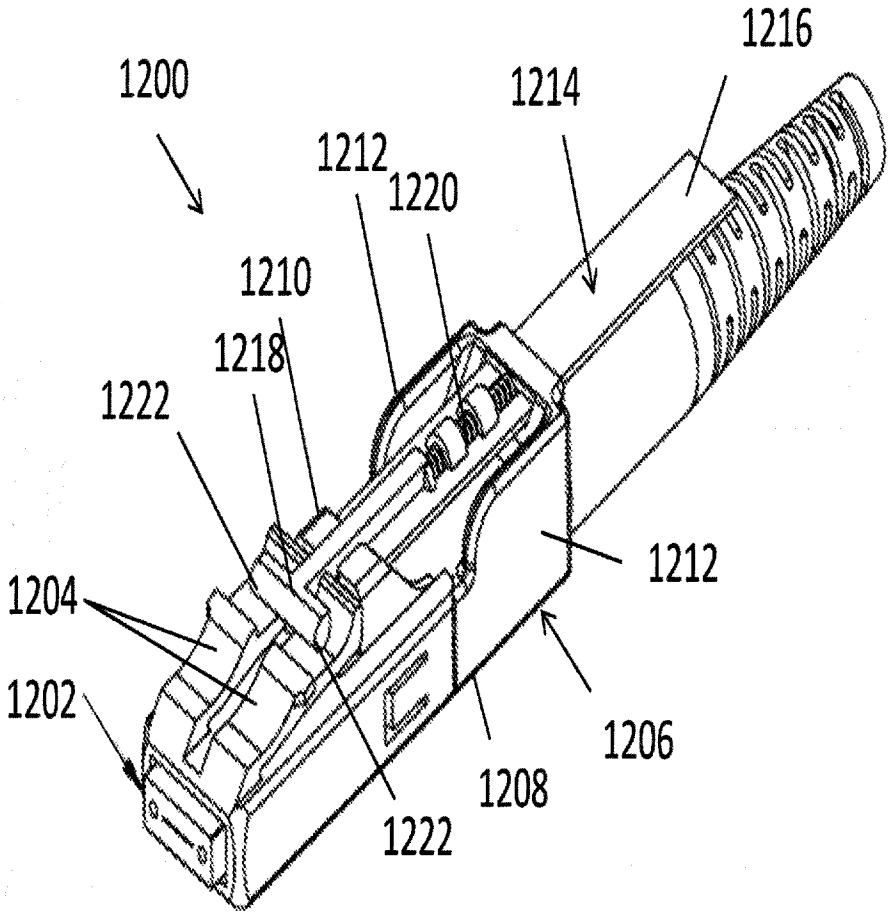

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FIG. 12A

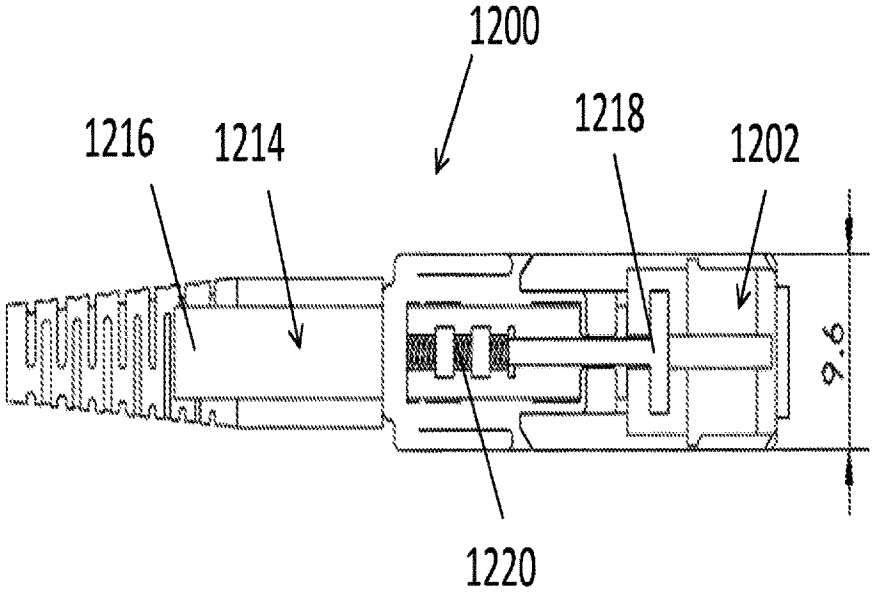


FIG. 12B

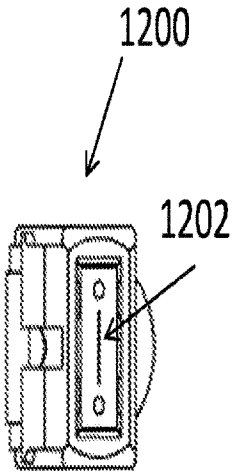


FIG. 12C

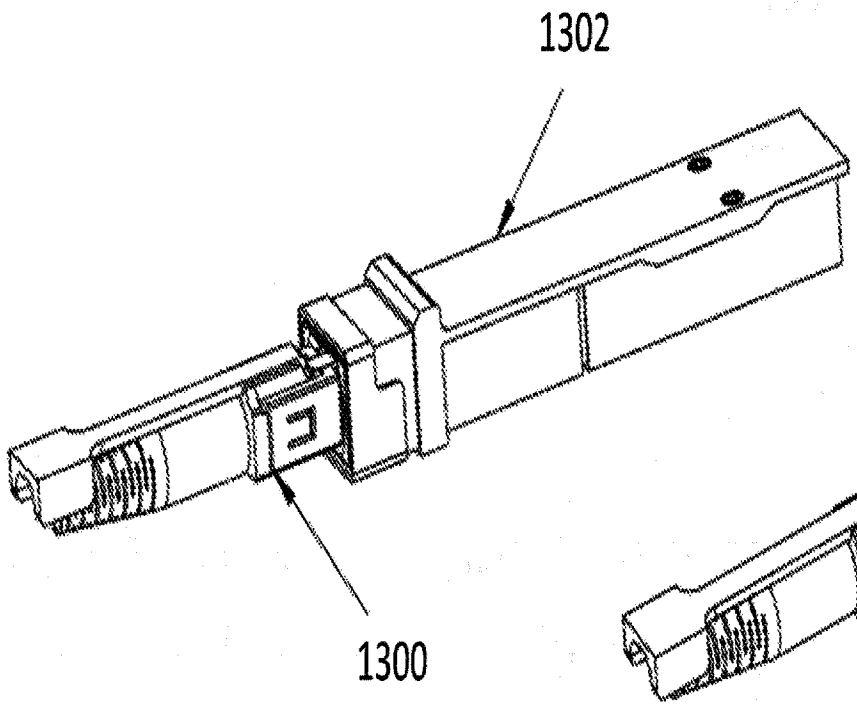


FIG. 13A

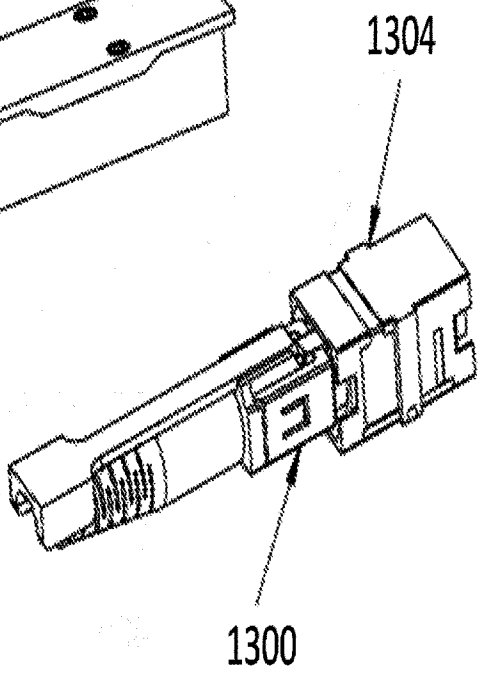


FIG. 13B

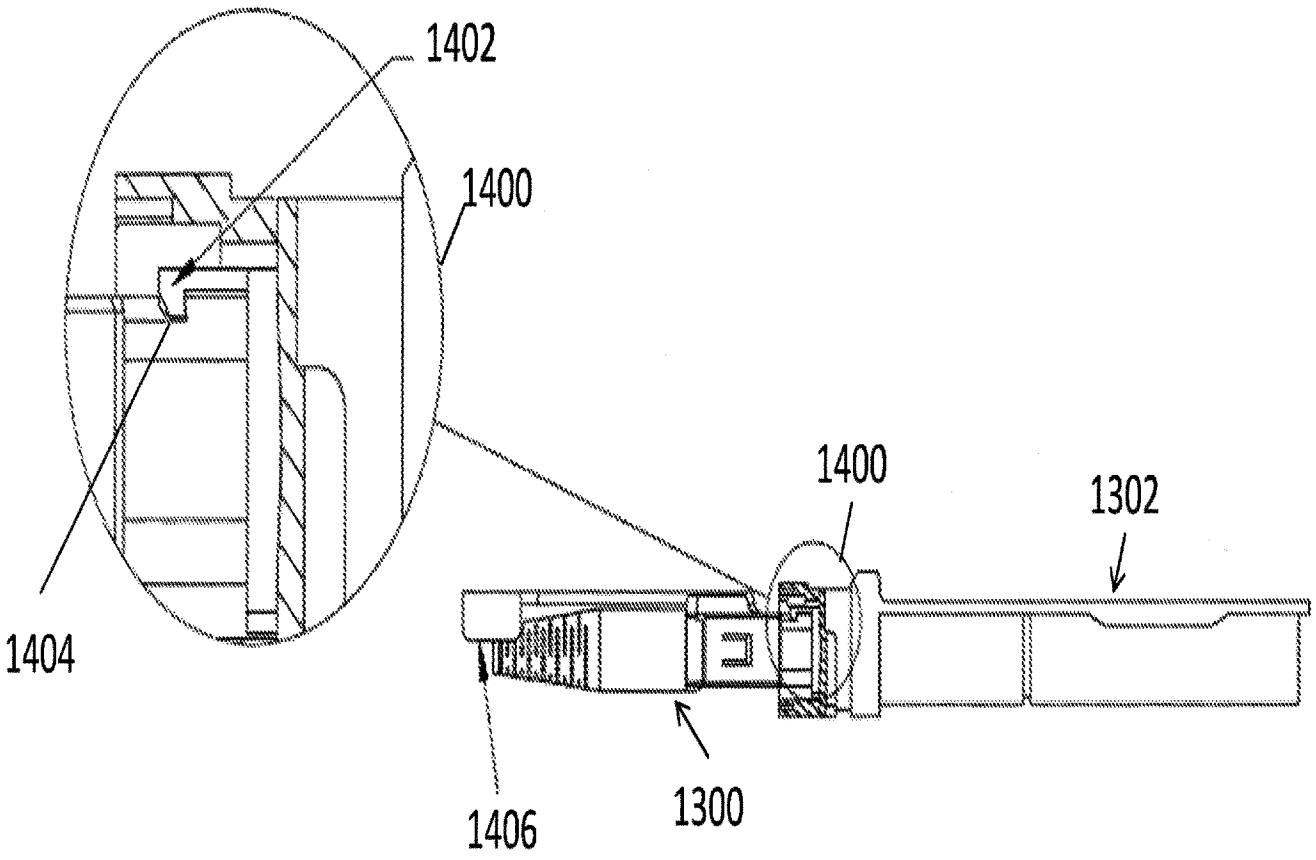


FIG. 14

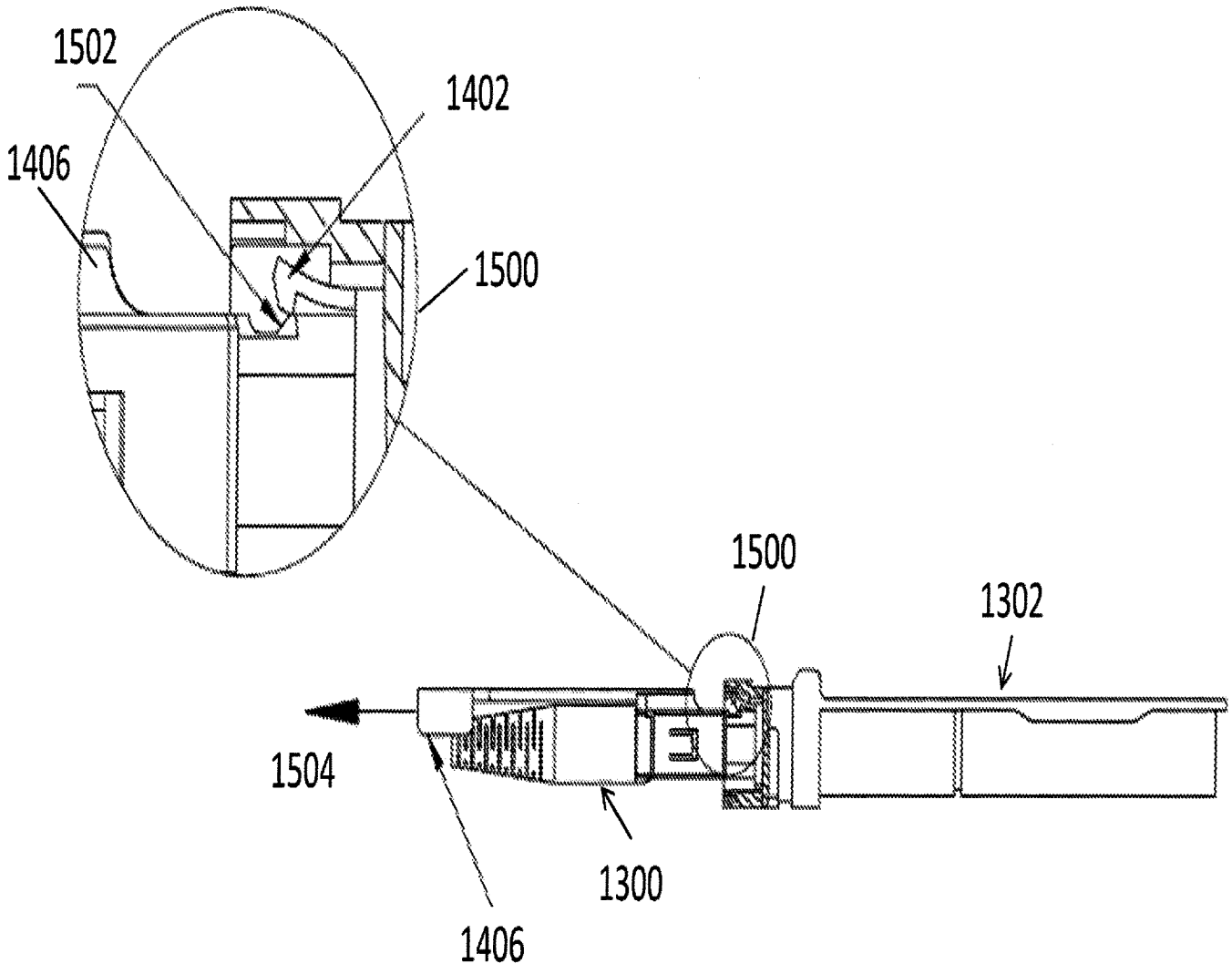


FIG. 15

PTO/AIA/01 (06-12)
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [x] The attached application, or
- [ ] United States application or PCT international application number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Address: 8F Konko Building, 1-1-16 Kanda Izumi-cho, Chiyoda-ku, Tokyo, JP 101-0024

Inventor: Kazuyoshi Takano Date (Optional): _____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/01 (06-12)
Approved for use through 01/31/2014. OMB 0651-0032
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [x] The attached application, or
- [ ] United States application or PCT international application number _____ filed on _____.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Jeffrey GNIADEK Date (Optional): _____

Signature: _____

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 17/494,291

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	80		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	350		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	400		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	22 minus 20 =	* 2	x 50 =	100	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*	x 240 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	930		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/494,291	10/05/2021	2883	930	S03263	22	2

CONFIRMATION NO. 3410

152878
Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

FILING RECEIPT

OC000000129168690

Date Mailed: 10/19/2021

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Kazuyoshi TAKANO, Tokyo, JAPAN;
Jeffrey GNIADEK, Oxford, ME;

Applicant(s)

Senko Advanced Components Inc., Marlborough, MA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 16/695,901 11/26/2019 PAT 11152748
which is a CON of 16/213,244 12/07/2018 PAT 10520690 *
which is a CON of 15/044,838 02/16/2016 PAT 10158194
which is a CIP of 14/996,865 01/15/2016 PAT 9595786
(*)Data provided by applicant is not consistent with PTO records.

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)
UNITED STATES OF AMERICA PCT/US16/13629 01/15/2016
TAIWAN 105101374 01/18/2016

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/18/2021

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/494,291**

Projected Publication Date: 01/27/2022

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

Preliminary Class

385

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03263	3410

152878 7590 12/08/2021

Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

EXAMINER	
CENTRAL, DOCKET	

ART UNIT	PAPER NUMBER
OPAP	

NOTIFICATION DATE	DELIVERY MODE
12/08/2021	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
patents@senko.com
stl.uspatents@stinson.com

Decision Granting Request for Prioritized Examination (Track I)	**Application No.** 17/494,291	**Applicant(s)** TAKANO et al.	
	Examiner APRIL M WISE	**Art Unit** OPET	**AIA (FITF) Status** Yes

1. THE REQUEST FILED 05 October 2021 IS **GRANTED** .

   The above-identified application has met the requirements for prioritized examination
   - A. ☑ for an original nonprovisional application (Track I).
   - B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination**. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:
   - A. filing a **petition for extension of time** to extend the time period for filing a reply;
   - B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims** , or a multiple dependent claim;
   - C. filing a **request for continued examination** ;
   - D. filing a notice of appeal;
   - E. filing a request for suspension of action;
   - F. mailing of a notice of allowance;
   - G. mailing of a final Office action;
   - H. completion of examination as defined in 37 CFR 41.102; or
   - I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to undersigned at (571)272-1642.

In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.

/APRIL M WISE/ Paralegal Specialist, Office of Petitions	

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03263	3410

152878 7590 12/30/2021

Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

EXAMINER	
TAVLYKAEV, ROBERT FUATOVICH	

ART UNIT	PAPER NUMBER
2896	

NOTIFICATION DATE	DELIVERY MODE
12/30/2021	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

eofficeaction@appcoll.com
patents@senko.com
stl.uspatents@stinson.com

Office Action Summary	Application No. 17/494,291	Applicant(s) TAKANO et al.	
	Examiner ROBERT TAVLYKAEV	Art Unit 2896	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-22 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-22 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 10/5/21 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

2. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

DETAILED ACTION

Priority and Election

3. The instant application claims priority of Application Nos. 14/996,865, 15/044,838, 16/213,244, and 16/695,901 and discloses two species of a fiber optic connector, i.e., Species A (illustrated in Figs. 5 – 8 and 12) and Species B (illustrated in Figs. 13 – 15). Species A has a latch 504 *of a fiber optic connector* wherein the latch 504 is pressed *down* for disengagement (para. 0061 and 0062 of the instant specification), whereas Species B has a latch 1402 *of an adapter/SFP* wherein the latch 1402 is *lifted* for disengagement by using a ramp area 1502 of a pull tab (Fig. 15; para. 0077). Species A has first been disclosed by parent application 14/996,865 and allowed. Species B has first been disclosed by parent application 15/044,838 (CIP of 14/996,865) and allowed (US Patent No. 10,158,194). Species B has also been examined throughout the prosecution of parent applications 16/213,244 and 16/695,901, which both were allowed (with terminal disclaimers with respect to US Patents Nos. 10,158,194 and 10,520,690 filed and approved).

4. The original claims of the instant application (as filed 10/5/21) all recite "a depressible latching arm" of the optical fiber connector so Applicant has in effect elected Species B by original presentation (MPEP 821.03).

Claim Objections

5. Claim 7 is objected to because of the following informalities:

Claim 7 recites the limitation "wherein groove" which refers to the groove defined by claim 5 (on which claim 7 is dependent) and has a typographical error. For the purposes of this Action, the limitation is interpreted as "wherein the groove". Appropriate corrections are required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102 of this title, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims the examiner presumes that the subject matter of the various claims was commonly owned as of the effective filing date of the claimed invention(s) absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and effective filing dates of each claim that was not commonly owned as of the effective filing date of the later invention in order for the examiner to consider the applicability of 35 U.S.C. 102(b)(2)(C) for any potential 35 U.S.C. 102(a)(2) prior art against the later invention.

8. Claims 1 – 6, 8 – 12, 16, and 19 are rejected under 35 U.S.C. 103 as being unpatentable over Crain (US 8,556,645 B2) in view of Norris et al (US 2013/0022317 A1).

Regarding claim 1, Crain discloses (Fig. 6; 6:14 – 29; background/common-knowledge elements are described at 4:37 – 67) an optical fiber connector 68 (configured for mating with a receptacle ("A connector includes a body configured to *latchingly connect to a complementary connector element* in a latching direction" in the Abstract, emphasis added), the optical fiber connector 68 comprising (**see annotated Fig. 6 below**):

a ferrule configured to hold an optical fiber;

a connector housing 12 having a front (left) end portion (in the orientation of Fig. 6) and a rear (right) end portion spaced apart along a longitudinal (horizontal) axis ("... a connector having a body configured to latchingly connect to a complementary connector element in a latching direction, the body including a first end for engaging the complementary connector element, a second end and a longitudinal axis" at 1:59 – 63), the connector housing 12 configured to hold the ferrule such that the ferrule is exposed through the front (left) end portion for making an optical connection (as identified in annotated Fig. 6);

a depressible latching arm 24 connected to the connector housing 12 ("The arm 24 is *flexible and resiliently* connected to the body 12, and the distal end 30 moves between a first position, shown by solid lines in FIG. 1, where it is spaced from the longitudinal axis 22 by a first distance, and a second position, shown in broken lines in FIG. 1" at 4:50 – 64, emphasis added) for latching with the receptacle (complementary connector element) when the optical fiber connector 68 is mated with the receptacle (in "the first position") to releasably retain the optical fiber connector in the receptacle ("When the distal end 30 is in the first position, conventional structures thereon *engage* structures in the complementary connector to latch the body 12 to the complementary connector. When the distal end 30 is *depressed* toward the first side 26 and into the second position, the latching structures on the connector 10 and the complementary connector delatch, and the connector 10 may then be removed from the complementary connector by applying a force in the direction opposite the latching direction 16" at 4:56 – 64, emphasis added); and

a remote release 58,62,66 (pull tab) connected to the connector housing 12 (by "an inverted U-shaped member 70" at 6:15 – 25) for movement relative to the connector housing 12 along the longitudinal (horizontal) axis, the remote release 58,62,66 (pull tab) being configured to be pulled rearward (left to right) along the longitudinal (horizontal) axis to depress the depressible latching arm 24 for releasing the optical fiber connector 68 from the receptacle ("... the U-shaped member 70 providing the force redirection surface that was previously provided by the antisnag element 32. Other force redirection structures, such as a short tunnel (not illustrated) leading into and then out of the body 12 could be employed as force redirection surfaces within the scope of this disclosure. Like the hole 56 in the antisnag element 32, these force redirection structures would *redirect a force in a direction opposite the latching direction 16 to pull the arm 24 toward the side 26 of the body 12 and toward the second, delatching, position*" at 6:20 – 29, emphasis added).

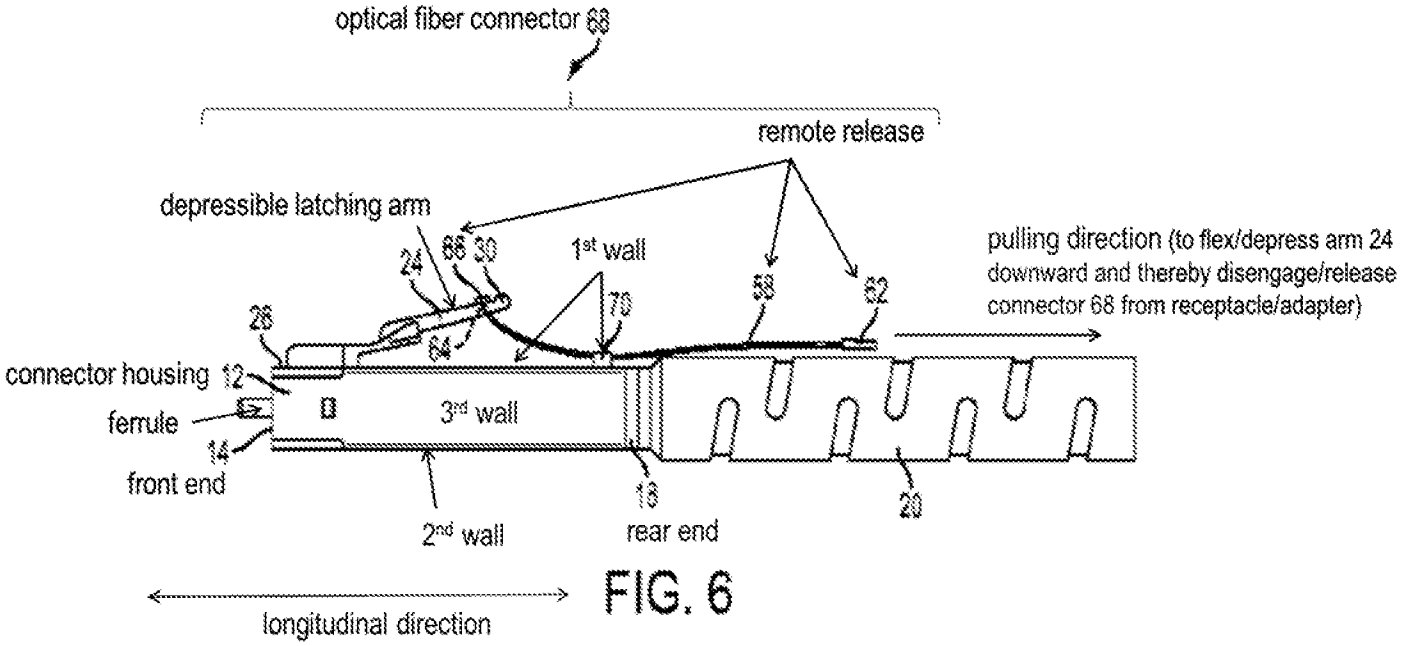


FIG. 6

Annotated Fig. 6 of Crain.

Crain illustrates, *by way of example but not limitation*, only connector embodiments having a cylindrical ferrule with a circular cross-section, which commonly holds only *one* optical fiber. Crain does not expressly teach that an *MT* ferrule configured to hold a *plurality* of optical fibers can alternatively be used, even though fiber-optic connectors with *MT* ferrules are well known in the art. For example, Norris expressly cites common types of ferrules, including a *single-fiber LC-type* ferrule and a *multi-fiber MT-type* ferrule ("a multi-fiber ferrule, such as an MTP, MT-RJ, MPO or SC/DC ferrule, or a single fiber ferrule, such as an SC, ST, or LC ferrule" at para. 0033) and discloses (Figs. 5 and 6A; para. 0020 – 0022 and 0041 – 0048) an optical fiber connector/plug 80 comprising an *MT ferrule* 50 that holds a *plurality* of optical fibers 53 ("… an exemplary multi-fiber termination push-on (MTP) ferruled fiber optic plug 80 (also referred to as "fiber optic plug 80"). The fiber optic plug 80 includes a ferrule retainer 82 designed to retain the ferrule 50 in FIGS. 3A-3C" at para. 0041; "The ferrule 50 is mounted upon end portions 52 of optical fibers 53, as illustrated in FIG. 3C" at para. 0033). It would have

been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the optical fiber connector of Crain can have either a *single-fiber LC-type* ferrule or a *multi-fiber MT-type* ferrule, the latter being a common ferrule choice/design that is expressly cited by Norris. The motivation for using a *multi-fiber MT-type* ferrule is that a single fiber-optic connector can provide optical coupling for a *plurality* of optical fibers at once.

In light of the foregoing analysis, the Crain – Norris combination teaches expressly or renders obvious all of the recited limitations.

Regarding claim 2, the Crain – Norris combination considers (see annotated Fig. 6 of Crain provided above for claim 1) that the connector housing 12 can have a generally rectangular perimeter (as seen in side-views in Figs. 1, 6, and 8 together with top-down views in Figs. 2, 3, and 9) including opposite first (top wall comprising 26,70) and second (bottom) walls and opposite third and fourth walls (vertical sidewalls of 12), the depressible latching arm 24 being located on an exterior of the first (top) wall 26,70 ("An arm 24 projects from a first side 26 of the body 12 at an acute angle to the longitudinal axis 22" at 4:47 – 49). Norris also states that the front (insertable) portion of the MT ferrule 50 has a generally rectangular perimeter ("The ferrule 50 includes a ferrule body 54 having a *generally rectangular-shaped* end face 56 about the connective end of the ferrule 50" at para. 0033, emphasis added).

Regarding claim 3, the Crain – Norris combination considers (see annotated Fig. 6 of Crain provided above for claim 1) that the depressible latching arm 24 has a front (left) end portion and a rear (right) end portion spaced apart along the longitudinal (horizontal) axis, the depressible latching arm 24 extending transversely (vertically) outward away from the first wall 24 as the depressible latching arm 24 extends longitudinally (horizontally) from the front (left) end portion to the rear (right) end portion ("An arm 24 projects from a first side 26 of the body 12 at an acute angle to the longitudinal axis 22" at 4:47 – 49).

Regarding claim 4, the Crain – Norris combination considers (see annotated Fig. 6 of Crain provided above for claim 1) that the optical fiber connector 68 is free of depressible latching arms on an exterior of any of the second (bottom), third (front sidewall), and fourth (rear sidewall) walls: as seen in Fig. 6, the depressible latching arm 24 is disposed *only* on the exterior of the first (top) wall 26,70.

Regarding claim 5, the Crain – Norris combination considers (see annotated Fig. 6 of Crain provided above for claim 1) that the first wall 26,70 of the connector housing defines a groove (defined by inverted-U-shaped 70), the remote release 58 (pull tab) being slidably received in the groove 70 ("LC connector 68 does not include an antisnag element 32 but instead includes *an inverted U-shaped member* 70 defining *an opening* between the U-shaped member 70 and the first side 26 of the body 12 *through which the flexible extension member 58 passes*, the U-shaped member 70 providing the force redirection surface … these force redirection structures would redirect a force in a direction opposite the latching direction 16 to pull the arm 24 toward the side 26 of the body 12 and toward the second, delatching, position" at 6:15 – 29, emphasis added).

Regarding claim 6, the Crain – Norris combination considers (see annotated Fig. 6 of Crain provided above for claim 1) that the remote release 58,62,66 (pull tab) comprises a lower portion 62 (that is used for gripping and can have a variety of suitable/workable shapes, as illustrated in Figs. 14 – 16 of Crain; 8:49 – 61) and an upper portion 58 (bent upwards), the lower portion 62 (corresponds to 174 in Fig. 14) being wider than the upper portion 58 (corresponds to 172 in Fig. 14).

Regarding claim 8, the Crain – Norris combination considers (see annotated Fig. 6 of Crain provided above for claim 1) that the optical fiber connector 68 is configured so that upon release of the remote release 58,62,66 (pull tab) after being pulled rearward (left to right, along the puling direction identified in Fig. 6) along the longitudinal (horizontal) axis to depress the

depressible latching arm 24, the depressible latching arm 24 resiliently returns toward an un-depressed position (at a steeper angle with respect to the connector housing 12) due to the resiliency of the depressible latching arm 24 (4:47 – 67).

Regarding claims 9 – 12, both Crain (Fig. 9) and Norris (para. 0062) teach that the disclosed connector(s) can be implemented as a *duplex* connector (a connector type that is well known in the art) that comprises a pair of connectors disposed parallel and attached to each other. Hence, the Crain – Norris combination considers a pair of connectors having the same structure and united in the form of a duplex connector, *as illustrated in Figure A below*. Each connector in the part of connectors has a depressible latching arm 24 (Fig. 6 of Crain) so that the depressible latching arm is a first depressible latching arm 24a, and the duplex connector further comprises a second depressible latching arm 24b spaced apart (by a distance/pitch between the centers of the two connectors) from the first depressible latching arm 24a.

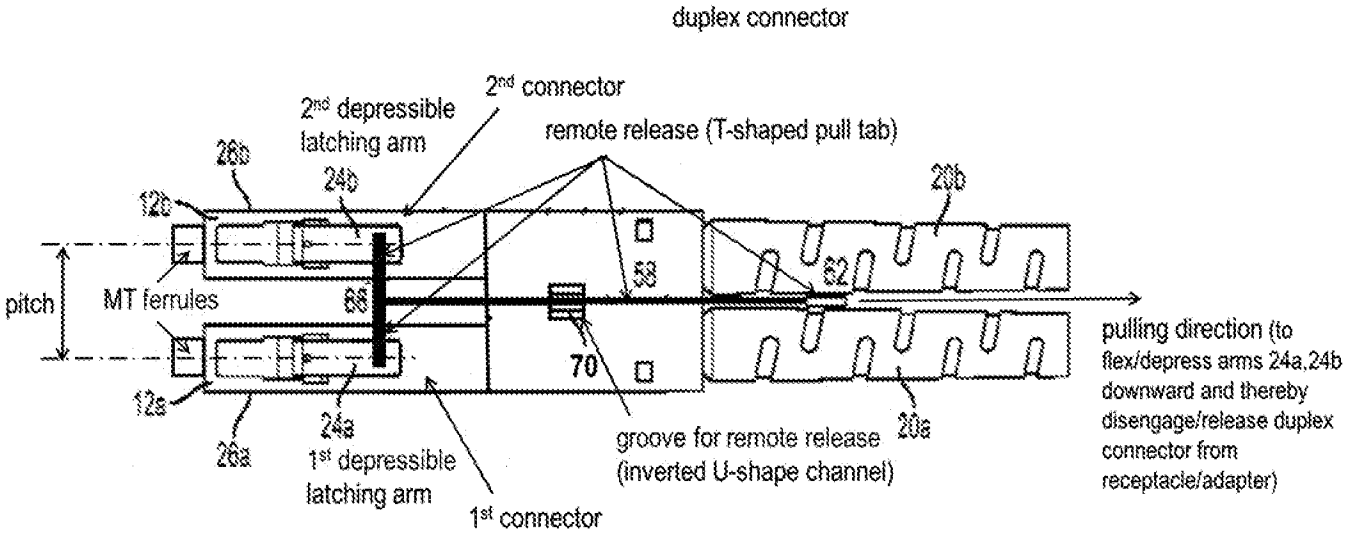


Figure A. Duplex connector of the Crain – Norris combination.

Further for claim 10, since the pair of connectors in the duplex connector are attached to each other, they are connected/released to/from a receptacle at the same time and need only one common remote release 58,62,66 (pull tab). The (common) remote release 58,62,66 depresses, at the same time, both the first depressible latching arm 24a and the second depressible latching arm 24b when the remote release 58,62,66 (pull tab) is pulled rearward (left to right in Fig. 6 of Cain) along the longitudinal (horizontal) axis.

Further for claim 11, Cain teaches the remote release 58,62,66 comprises "an *enlarged* end portion 66 to secure the extension member 58 to the arm 24, or connected to the arm 24 *in any other suitable manner*" (5:52 – 54, emphasis added). The Crain – Norris combination renders obvious that, in the contemplated *duplex* connector, an *enlarged* end portion 66 of the common remote release (pull tab) should be large enough to engage, by its laterally extending ends/edges, the first and second depressible latching arms of the pair of connectors. For example, a T-shaped end portion 6 can be used as a suitable/workable shape, *as illustrated in Figure A above*. Thus, the (common) remote release of the duplex connector comprises a first edge (e.g., the lower) extending portion of the T-shaped end portion 66) for engaging the first depressible latching arm 24a (of the lower connector) and a second (upper) edge for engaging the second depressible latching arm 24b (of the upper connector), the first and second edges being spaced apart from one another (by a distance comparable to the distance/pitch between the centers of the two connectors).

Further for claim 12, the Crain – Norris combination considers that the remote release 58,62,66 (pull tab) can have a T-shape, as a matter of a suitable/workable shape, and further comprises an elongate (vertical connecting) section between the first (lower) edge and the second (upper) edge.

Regarding claim 16, the Crain – Norris combination considers the MT ferrule (identified as 50 in Figs. 3A – 3C of Norris) is configured to receive a plurality of fibers 53 such that the fibers are spaced apart in a row that extends parallel to a fiber alignment axis (a transverse alignment axis) ("The ferrule 50 is mounted upon end portions 52 of optical fibers 53" at para. 0033; "the multi-fiber ferrules are shown having only a single row of fiber bores 60" at para. 0034), the MT ferrule 50 comprising first and second guide pin openings 62A,62B spaced apart along the fiber alignment axis (as shown in Fig. 3A; "... multi-fiber ferrules also define at least one and, more commonly, a pair of guide pin openings 62A, 62B adapted to receive respective alignment members, such as guide pins (not shown)" at para. 0034).

Regarding claim 19, the Crain – Norris combination considers, as detailed above for claim 1, an optical connection system comprising the contemplated optical fiber connector and a receptacle/adapter for mating with the optical fiber connector ("A connector includes a body configured to *latchingly connect to a complementary connector element* in a latching direction" in the Abstract of Cain, emphasis added; "A "connector" can be provided in any form or package desired that is capable of providing a connection to allow one or more communications lines to be communicatively connected or coupled to other communications lines disposed in *another adapter or connector in which the connector is attached*" at para. 0062 of Norris, emphasis added).

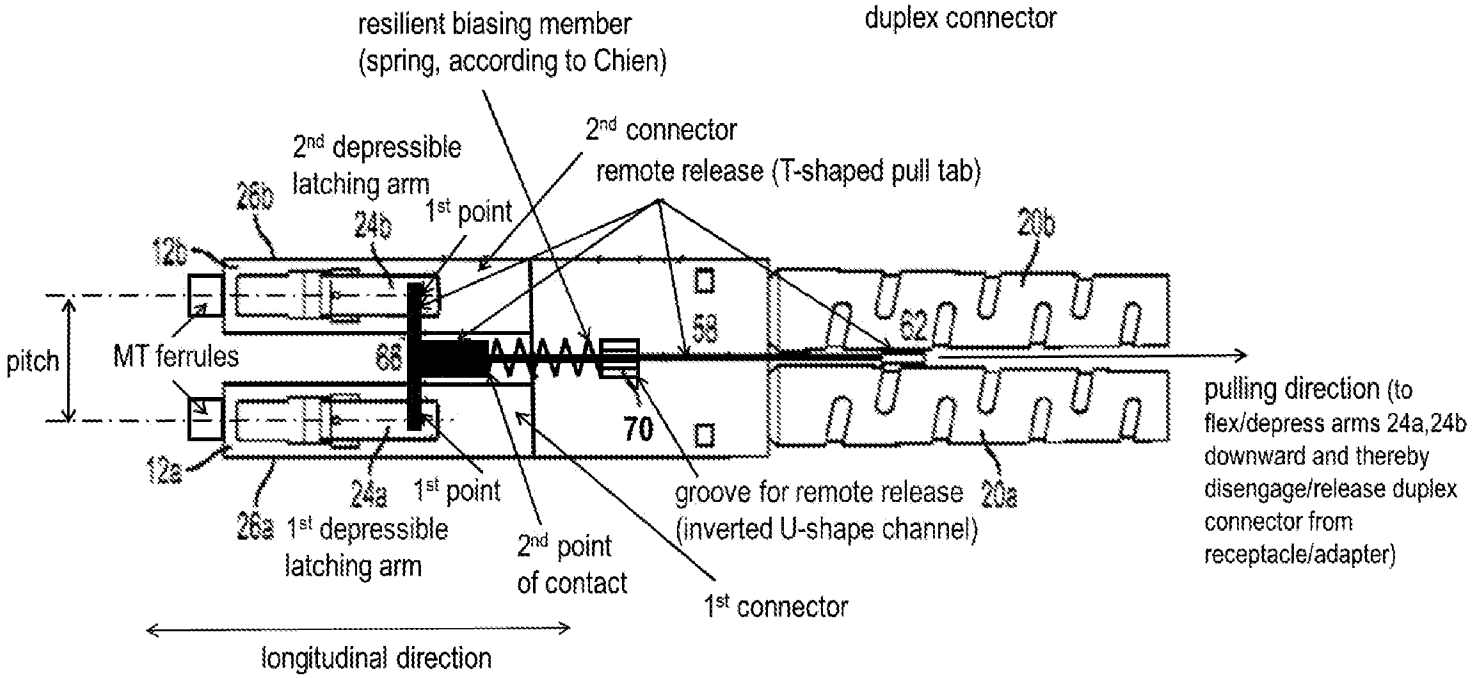
9. Claims 13 – 15 are rejected under 35 U.S.C. 103 as being unpatentable over Crain in view of Norris, and further in view of Chien (US 9,048,568 B2).

Regarding claims 13 and 14, the Crain – Norris combination considers that the remote release comprises a front section (which can have a T-shape, as detailed above for claim 9) and that the front section should not apply any pulling force on the depressible latching arm 24 when the latter is fully extended away from the first wall 26 in order to allow such state of full

extension. While the Crain – Norris combination does not expressly teach that such operation can be provided by a resilient biasing member (spring) to yieldably bias the front section forward along the longitudinal axis, even though the use of springs for yieldably biasing remote releases (pull tabs) is well known in the art of optical fiber connectors. For example, Chien discloses (Figs. 1 – 3; Abstract; 1:58 – 2:35) a cable connector (for releasably connecting a cable 8) comprising a depressible latching arm 3, a remote release 2,9, and a resilient biasing member (spring) 6 that yieldably biases the remote release forward (along the right-to-left direction inn Figs. 2 and 3). It would have been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the optical fiber connector of the Crain – Norris combination can be configured, in accordance with the teachings of Chien, to comprise a resilient biasing member engaging the front section of the remote release to yieldably bias the remote release forward, so that the remote release does not apply any pulling/releasing force on the depressible latching arms when the connector is intended to continue being plugged into the receptacle/adapter.

Regarding claim 15, the Crain – Norris – Chien combination considers that that the depressible latching arms 24a,24b of the contemplated duplex connector are configured to engage the front section of the remote release at a first point of contact, i.e., at the points of contact between the T-shaped front section and the depressible latching arms 24a,24b (as shown in Figure A provided above form claim 9). The resilient biasing member/spring (comprised according to the teachings of Chien, as detailed above for claim 13) is configured to engage the front section of the remote release at a second point of contact, e.g., another protruding portion (shoulder) of the remote release to fix a front end of the resilient biasing member/spring relative to the remote release, as illustrated in Figure B below, in full similarity with how the left end of

the spring 6 is fixed relative to the remote release 2 by using a shoulder formed in a front section (left bottom portion) of the remote release 2 in Figs. 2 and 3 of Chien. As seen in Figure B, the second point of contact being rearwardly spaced apart from the first point of contact along



the longitudinal axis.

Figure B. Duplex connector of the Crain – Norris – Chien combination.

10. Claims 17 and 20 – 22 are rejected under 35 U.S.C. 103 as being unpatentable over Crain in view of Norris, and further in view of Bates (US 7,052,186 B1).

Regarding claim 22, the teachings of Crain and Norris combine (see the arguments and motivation for combining as applied above to claim 1) to consider an optical connection system comprising the contemplated optical fiber connector and a receptacle/adapter for mating with the optical fiber connector (e.g., Abstract of Cain; para. 0062 of Norris). While the Crain – Norris combination does not detail particular of such receptacle/adapter, they are well known in the art.

For example, Bates discloses (Fig. 1; 2:29 – 3:50) an optical connection system 10 comprising a duplex fiber-optic connector with a pair of connectors 12,14 (each having essential structural features similar to those in Crain) to be mated with a corresponding receptacle/adapter 24 ("receiver"). Bates explicitly illustrates that the receptacle 24 comprises a rectangular perimeter wall having a first end portion (front/right portion of 24 in Fig. 1) and a second (rear) end portion spaced apart along a longitudinal axis M (as identified in Fig. 1), the rectangular perimeter wall comprising a recess 20,22 adjacent the first (front) end portion and defining a port opening through the first (front) end portion, the rectangular perimeter wall being configured to be disposed in relation to a first MT ferrule (corresponding to ferrule 30 in Fig. 1 of Bates and being a ferrule of one connector in a *duplex* connector of Crain – Norris combination, as detailed above for claims 9 – 12) such that first MT ferrule is located adjacent to the second (rear) end portion (which houses a ferrule 32 with which ferrule 30 is to be mated) and an optical connection to the first MT ferrule can be made through the port;

wherein the optical receptacle is configured so that an optical fiber connector can be plugged into the port (2:29 – 40); and

wherein when the optical fiber connector is plugged into the port, the optical receptacle is configured so that (i) the recess 20,24 latches with a depressible latching arm 40,42 on one (upper) side of the optical fiber connector; (ii) one (lower) side of the rectangular perimeter wall slidably engages a side of the optical fiber connector opposite the depressible latching arm 40,42 without latching (because the depressible latching arms 40,42 are disposed only on the upper side of the connector, as seen in Fig. 1); and (iii) an optical connection is made between the first MT ferrule (corresponding to ferrule 30 in Fig. 1 of Bates) and a second MT ferrule of the optical fiber connector (corresponding to ferrule 32 in Fig. 1 of Bates) ("When the ferrule is fully inserted into a receiver passage (and into an alignment sleeve, not shown), the ferrule tip abuts the tip of a mating ferrule 32. When

such full insertion occurs, a pair of connector latch shoulders 40 of a connector latch 42 that merges with the connector body 28, lie behind a pair of receiver shoulders 46 to hold the connector in the receiver" at 2:34 – 40).

It would have been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the receptacle/adapter of the Crain – Norris combination can have structural particulars as detailed by Bates in order to enable proper operation of the opticla connection system (latching, optical connection, and delatching/release).

In light of the foregoing analysis, the Crain – Norris – Bates combination teaches expressly or renders obvious all of the recited limitations.

Regarding claims 20 and 21, the Crain – Norris – Bates combination teaches expressly or renders obvious all of the recited limitations, as detailed above for claim 22.

Regarding claim 17, the teachings of Crain, Norris, and Bates combine (see the arguments and motivation for combining as applied above to claims 1 and 22) to contemplate a *miniaturized* duplex connector of an *MPO* type. Specifically, Norris cites a variety of known/suitable connector types, including an *MPO* type connector (para. 0033 and 0062), while Bates discloses (Figs. 1 – 4) a *narrow pitch* duplex connector comprising a pair of *miniature* optic fiber connectors 12,14 that are each insertable into a corresponding recesses/ports 20,22 of a receptacle/adapter 24 (Fig. 1; 2:29-32), the pair of *miniature* optic fiber connectors 12,14 arranged such that a reduced pitch of the narrow pitch connector is less than about 5.25 mm (the pitch is equal to a pitch (center-to-center) distance A (Fig. 4) between the receiver passages, the distance being 0.2 inch = 5.08 mm, 3:21 – 25). Hence, the Crain – Norris – Bates combination at the very least renders obvious that the contemplated *duplex* connector can be *miniaturized* to have an outer cross-sectional dimension (pitch) along the fiber alignment axis that is less than an outer cross-sectional dimension (pitch) of a standard MPO connector along a fiber alignment axis of the standard MPO connector.

11. Claim 18 is rejected under 35 U.S.C. 103 as being unpatentable over Crain in view of Norris, and further in view of Irwin et al (US 9,063,303 B2).

Regarding claim 18, the Crain – Norris – Bates combination does not expressly tach that the contemplated *duplex* connector (as detailed above for claims 9 – 12) can be additionally configured to have *reversible* polarity, even though connectors with such function/feature are well known in the art. For example, Irwin discloses (e.g., Figs. 1 and 5 – 18; 2:58 – 4:35) a *duplex* optical fiber connector 100 comprising a pair of connectors 101 (as identified in Fig. 1) and expressly teaches that the connector can be configured to selectively reverse its polarity (3:41 – 45). It would have been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the *duplex* connector of the Crain – Norris – Bates combination can be additionally configured, according to the teachings of Irwin, to have *reversible* polarity, in order to accommodate both possible polarities of a receptacle with a single connector part and/or switch optical connections between the two connectors in the duplex connector.

12. Claims 1 – 4, 8, 13 – 16, and 19 – 21 are rejected under 35 U.S.C. 103 as being unpatentable over Watanabe et al (US 20170351037 A1) in view of Chien.

Regarding claim 1, Watanabe discloses (Figs. 1 – 5; para. 0033 – 0066) an optical fiber connector 20 (as identified in Fig. 2) configured for mating with a receptacle 10A ("The optical coupling structure 1A includes a receptacle connector 10A and a plug connector 20" at para. 0033), the optical fiber connector 20 comprising:

an MT ferrule 30 (as identified in Fig. 2 and detailed in Fig. 4; "The ferrule main body part 31 is a so-called MT ferrule, and has a roughly rectangular parallelepiped outer shape" at para. 0037) configured to

hold a plurality of optical fibers F2 ("The ferrule main body part 31 holds the ends of the plurality of optical fibers F2 configuring an optical cable F1" at para. 0038);

a connector housing 21 ("... the plug connector 20 includes a plug housing 21 roughly in a rectangular parallelepiped shape" at para. 0033) having a front end portion (left portion of 20 in Figs. 2 and 3) and a rear (right) end portion spaced apart along a longitudinal (horizontal) axis, the connector housing 21 configured to hold the MT ferrule 30 such that the MT ferrule 30 (its end 30a) is exposed through the front (left) end portion for making an optical connection ("... the ferrule 30 as the receptacle ferrule 13 includes the receptacle interface part 13b at a front end 30a, and the enlarged light beam is emitted from the front end 30a" at para. 0036); and

a depressible latching arm 21a connected to the connector housing 21 for latching with the receptacle 10A when the optical fiber connector 20 is mated with the receptacle 10A (as shown in Fig. 3) to releasably retain the optical fiber connector in the receptacle ("A latch lever 21a is provided on one outer side face of the plug housing 21. The cavity 18 houses at least a part of the latch lever 21a, and a latch engaging part to engage with the latch lever 21a is provided on one inner side face of the cavity 18. When the plug connector 20 is inserted into the cavity 18, the latch lever 21a and the latch engaging part engage with each other and thus, getting-out of the plug connector 20 is prevented" at para. 0033).

While Watanabe does not teach that the disclosed connector can further comprise a *remote release* (pull tab) such element is well known in the art of connectors. In particular, Chien discloses (Figs. 1 – 3; Abstract; 1:58 – 2:35) a cable connector (for releasably connecting a cable 8) comprising a connector housing 1, a depressible latching arm 3 connected to the connector housing 1 for latching with a receptacle when the connector is mated with the receptacle to releasably retain the connector in the receptacle, and a *remote release* 2,4,9,21,22 (pull tab) connected to the connector housing 1 for movement relative to the connector housing 1 along a longitudinal axis (horizontal axis in Figs. 2 and 3), the remote release 2,4,9,21,22 being

configured to be pulled rearward (left to right, as shown in Fig. 3)along the longitudinal (horizontal) axis to depress the depressible latching arm 3 for releasing the connector from the receptacle.

It would have been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the optical fiber connector of Watanabe can be modified, in accordance with the teachings of Chien, to additionally comprise a *remote release* (pull tab) in order to facilitate the release of the connector from a receptacle/adapter, especially in *high-density* applications wherein there is not enough room, *due to close proximity of neighboring receptacles/adapter with plugged connectors*, for the operator's fingers to press a lever 29a to depress the depressible latching arm 21a and thereby release the connector. A remote release can extend beyond a high-density area and enable remote release.

In light of the foregoing analysis, the Watanabe – Chien combination teaches expressly or renders obvious all of the recited limitations.

Regarding claim 2, Watanabe expressly teaches (Figs. 3 and 4) that the connector housing 21 has a generally rectangular perimeter ("... the plug connector 20 includes a plug housing 21 roughly in a *rectangular parallelepiped* shape" at para. 0033, emphasis added) including opposite first (upper) and second (bottom) walls and opposite third and fourth walls (vertical sidewalls, the depressible latching arm 21a being located on an exterior of the first (upper) wall, as seen in Fig. 3.

Regarding claim 3, Watanabe expressly teaches (Fig. 3) that the depressible latching arm 21a has a front (left) end portion and a rear (right) end portion spaced apart along the longitudinal (horizontal) axis, the depressible latching arm 21a extending transversely outward

away from the first wall as the depressible latching arm 21a extends longitudinally from the front end portion to the rear end portion.

Regarding claim 4, Watanabe expressly teaches (Fig. 3) that the optical fiber connector 20 is free of depressible latching arms on an exterior of any of the second, third, and fourth walls: the depressible latching arm 21a is formed only on the first (upper) wall of the connector housing 21.

Regarding claim 8, the Watanabe – Chien combination considers (Figs. 2 and 3; para. 0034 – 0042 of Watanabe) that the optical fiber connector 20 should be configured so that upon release of the remote release after being pulled rearward (left to right) along the longitudinal axis to depress the depressible latching arm, the depressible latching arm resiliently returns toward an un-depressed position (as show in Fig. 2 of Watanabe and Fig. 2 of Chien).

Regarding claims 13 and 14, the Watanabe – Chien combination considers (Figs. 2 and 3 of Chien) that the remote release 2,4,9,21,22,23 comprises a front section 21,23 and that the front section 23 is yieldably biased forward (to the left) along the longitudinal (horizontal) axis by a resilient biasing member 6 (biasing spring) that engages the front section 21,22 of the remote release 2,4,9,21,22,23 (the spring 6 engages the shoulder 21, as shown in Fig. 3) to yieldably bias the remote release 2,4,9,21,22,23 forward.

Regarding claim 15, the Watanabe – Chien combination considers (Figs. 2 and 3 of Chien) that the depressible latching arm 3 is configured to engage the front section 21,23 of the remote release 2,4,9,21,22,23 at a first point of contact (the contact point between 3 and 4) and the resilient biasing member 6 is configured to engage the front section 21,23 of the remote release 2,4,9,21,22,23 at a second point of contact (the contact point between 6 and 21, as shown

in Fig. 3), the second point of contact being rearwardly (to the right) spaced apart from the first point of contact along the longitudinal axis, as seen in Fig. 3.

Regarding claim 16, Watanabe expressly teaches (Fig. 4; para. 0036 – 0044) that the MT ferrule 30 is configured to receive a plurality of fibers F2 such that the fibers are spaced apart in a row that extends parallel to a fiber alignment axis X (as identified in Fig. 4), the MT ferrule 30 comprising first and second guide pin openings 36 spaced apart along the fiber alignment axis ("... the ferrule 30 further includes two guide pin holes 36. The guide pin holes 36 extend in the Z direction, and are lined in an X direction and formed to hold the plurality of optical fibers F2 in between" at para. 0043).

Regarding claim 19, Watanabe expressly teaches (Figs. 2 and 3) an optical connection system 1A comprising the disclosed optical fiber connector 20 and a receptacle 10A for mating with the optical fiber connector 20 ("The optical coupling structure 1A includes a receptacle connector 10A and a plug connector 20" at para. 0033).

Regarding claim 20, Watanabe expressly teaches (Fig. 1) that the receptacle 10A comprises a rectangular perimeter wall (outer wall of 11; "The receptacle connector 10A includes a receptacle housing 11 roughly in a rectangular parallelepiped shape" at para. 0033).

Regarding claim 21, Watanabe expressly teaches (Fig. 1) that the receptacle 10A includes a recess 11, the depressible latching arm 21a being configured to latch with the recess 18 when the optical fiber connector 20 and the receptacle 10A are mated (Figs. 1 and 3; "The receptacle housing 11 includes a cavity 18 (second cavity) housing the plug connector 20. The cavity 18 extends in the inserting direction (Z direction) of the plug connector 20, and the cross section (XY cross section) of the cavity 18 vertical to the inserting direction is roughly rectangular. Furthermore, the plug connector 20 includes a plug housing 21 roughly in a rectangular parallelepiped shape. A latch lever 21a is provided on one outer side face of the plug housing 21. The cavity 18 houses at least a part of the latch lever 21a, and a latch engaging part to engage with the latch lever 21a is provided on one inner side face of the cavity 18. When the plug connector 20 is inserted into

the cavity 18, the latch lever 21a and the latch engaging part engage with each other and thus, getting-out of the plug connector 20 is prevented" at para. 0033).

13. Claims 9 – 12, 17, and 22 are rejected under 35 U.S.C. 103 as being unpatentable over Watanabe in view of Chien, and further in view of Bates.

Regarding claim 9, while the Watanabe – Chien combination does not expressly teach that the contemplated connector can form a *duplex* connector, Bates discloses (Fig. 1) a *duplex* fiber-optic connector that comprises a pair of connectors 12,14, each connector comprising a ferrule 30 and a depressible latching arm 40,42. It would have been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the optical fiber connector of Watanabe can be used, in accordance with the teachings of Bates, to form a *duplex* connector, in order to enable multiple optical connections (by using two ferrules in the pair of connectors). In such duplex connector, there are two depressible latching arms spaced apart from each other (as shown in Fig. 1 of Bates).

Regarding claim 10, while the Watanabe – Chien – Bates combination considers that the remote release is further configured to depress the second depressible latching arm (in the duplex connector) when the remote release 2,4,9,21,22,23 (in Fig. 3 of Chien) is pulled rearward along the longitudinal axis (left to right).

Regarding claim 11, while the Watanabe – Chien – Bates combination considers that the remote release 2,4,9,21,22,23 comprises a first edge for engaging the first depressible latching arm and a second edge for engaging the second depressible latching arm (the edges defined by contact points between 3 and 4 in Fig. 3 of Chien), the first and second edges being spaced apart from one another (by the pitch of the duplex connector, as shown in Fig. 1 of Bates).

Regarding claim 12, while the Watanabe – Chien – Bates combination considers that the remote release 2,4,9,21,22,23 (its part 4 in Fig. 3 of Chien) is long/wide enough to contact both latching arms 3 of the duplex connector and further comprises an elongate section between the first edge and the second edge.

Regarding claim 17, Bates teaches (Figs. 1 – 4) a *narrow pitch* duplex connector comprising a pair of *miniature* optic fiber connectors 12,14, the pair of *miniature* optic fiber connectors 12,14 arranged such that a *reduced pitch* of the narrow pitch connector is less than about 5.25 mm (the pitch is equal to a pitch (center-to-center) distance A (Fig. 4) between the receiver passages, the distance being 0.2 inch = 5.08 mm, 3:21 – 25). Hence, the Watanabe – Chien – Bates combination at the very least renders obvious that the contemplated *duplex* connector can be *miniaturized* to have an outer cross-sectional dimension (pitch) along the fiber alignment axis that is less than an outer cross-sectional dimension (pitch) of a standard MPO connector along a fiber alignment axis of the standard MPO connector.

Regarding claim 22, the teachings of Watanabe, Chien, and Bates combine (see the arguments and motivation for combining as applied above to claim 9) to contemplate an optical receptacle for receiving a duplex connector with two MT ferrules, the optical receptacle meeting of the recited limitations, as detailed above for claim 1 and 19 – 21.

14. Claim 18 is rejected under 35 U.S.C. 103 as being unpatentable over Watanabe in view of Chien, in view of Bates, and further in view of Irwin.

Regarding claim 18, the Watanabe – Chien – Bates combination does not expressly tach that the contemplated *duplex* connector (as detailed above for claims 9 – 12) can be additionally configured to have *reversible* polarity, even though connectors with such function/feature are

well known in the art. For example, Irwin discloses (e.g., Figs. 1 and 5 – 18; 2:58 – 4:35) a *duplex* optical fiber connector 100 comprising a pair of connectors 101 (as identified in Fig. 1) and expressly teaches that the connector can be configured to selectively reverse its polarity (3:41 – 45). It would have been obvious to a person of ordinary skill in the art before the effective filing date of the claimed invention that the *duplex* connector of the Watanabe – Chien – Bates combination can be additionally configured, according to the teachings of Irwin, to have *reversible* polarity, in order to accommodate both possible polarities of a receptacle with a single connector part and/or switch optical connections between the two connectors in the duplex connector.

Double Patenting

15. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process... may obtain a patent therefor..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the claims that are directed to the same invention so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

16. **Claims 1 – 22 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 – 22 of copending Application No. 17/342,220 (reference**

application). This is a provisional statutory double patenting rejection since the claims directed to the same invention have not in fact been patented.

17. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

18. **Claims 1, 7, 13 – 15, and 22 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 23 – 27 and 30 of copending Application No. 17/342,220 in view of Norris.** The later reference provides teachings regarding a well-known MT-type of ferrule. This is a provisional nonstatutory double patenting rejection.

Allowable Subject Matter

19. While no claims are allowable in the present form, the subject matter pertaining to claim 7 would be allowable, if Applicant overcomes the double-patenting rejections applied above and rewrites the claim in independent form including all of the limitations of the base claims and any intervening claims.

The reason for indicating allowable subject matter is that none of the prior art of record, taken alone or in combination, provides a motivation for a person of ordinary skill in the art to configure/modify the groove of first wall 26,70 in Crain to have an inner portion and an outer portion meeting the recited limitations and, in particular, have the outer portion of the groove configured to slidably receive the upper portion of the latch release such that the first wall

releasably retains the latch release in the groove. On the contrary, the latch release 58 is *permanently* retained in the groove 70 of the first wall 26,70, as detailed in Fig. 6 of Cain.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT TAVLYKAEV whose telephone number is (571)270-5634. The examiner can normally be reached on 10:00 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Kraig can be reached on (571)272-8660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TAVLYKAEV/
Primary Examiner, Art Unit 2896

Notice of References Cited	Application/Control No. 17/494,291	Applicant(s)/Patent Under Reexamination TAKANO et al.	
	Examiner ROBERT TAVLYKAEV	Art Unit 2896	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-8556645-B2	10-2013	Crain; Charles Thomas	H01R13/633	439/352
*	B	US-20130022317-A1	01-2013	Norris; Martin Eugene	G02B6/3865	385/78
*	C	US-9048568-B2	06-2015	Chien; Chien-Hsun	H01R13/633	1/1
*	D	US-7052186-B1	05-2006	Bates; Charles Linsday	G02B6/3879	385/139
*	E	US-9063303-B2	06-2015	Irwin; Phillip J.	G02B6/3885	1/1
*	F	US-20170351037-A1	12-2017	WATANABE; Takuro	G02B6/3885	1/1
*	G	US-7297013-B2	11-2007	Caveney; Jack E.	H01R13/6272	439/352
	H					
	I					
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	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	Art Unit
	ROBERT TAVLYKAEV	2896

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	12/23/2021								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
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	16	✓								
	17	✓								
	18	✓								
	19	✓								
	20	✓								
	21	✓								
	22	✓								

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	Art Unit
	ROBERT TAVLYKAEV	2896

CPC - Searched*		
Symbol	Date	Examiner
G02B6/3825,3879,3885,3893; H01R13/627,6271,6272,6275,62933	12/21/2021	RT

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
385	76,77,88,92	12/21/2021	RT
439	133,304,345,346,350,352,353,354,357,358,370	12/21/2021	RT

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
prior art search	12/21,22/21	RT
inventor name search	12/21/2021	RT
clm search	12/22/2021	RT

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
385	76,77,88,92	12/21/2021	RT
439	133,304,345,346,350,352,353,354,357,358,370	12/21/2021	RT

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S3	5	((Kazuyoshi) near2 (Takano)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:06
S4	7	((Kazuyoshi) near2 (Takano)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:06
S5	46	((Jeffrey) near2 (Gniadek)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:07
S6	128	((Jeffrey) near2 (Gniadek)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:07
S7	1	(13/286773).APP.	USPAT; USOCR	OR	OFF	2016/06/27 14:08
S8	99	("20040052473" | "20040136657" | "20040141693" | "20040161958" | "20060089049" | "20060269194" | "20070149062" | "20070230874" | "20070232115" | "20070243749" | "20080044137" | "20080069501" | "20080101757" | "20080226237" | "20080267566" | "20090028507" | "20090214162" | "20090220197" | "20100034502" | "20100322561" | "20110044588" | "20110131801" | "20110177710" | "4762388" | "4764129" | "4840451" | "5212752" | "5317663" | "5348487" | "5444806" | "5481634" | "5506922" | "5570445" | "5588079" | "5684903" | "5687268" | "5937130" |	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:08

		"5956444" | "5971626" | "6041155" | "6206577" | "6206581" | "6227717" | "6247849" | "6461054" | "6478472" | "6551117" | "6579014" | "6648520" | "6854894" | "7090406" | "7090407" | "7091421" | "7111990" | "7113679" | "7150567" | "7153041" | "7198409" | "7207724" | "7258493" | "7281859" | "7315682" | "7325976" | "7325980" | "7329137" | "7354291" | "7387447" | "7390203" | "7431604" | "7463803" | "7465180" | "7561775" | "7591595" | "7594766" | "7641398" | "7695199" | "7699533" | "7824113" | "8251733" | "D323143" | "D533504" | "D534124" | "D543146" | "D558675" | "D572661" | "D641708" | "RE37080").PN. OR ("8465317").URPN.				
S9	31	("5462457" | "5494457" | "6238251" | "6250949" | "6371787" | "7052186" | "7063554").PN. OR ("7465180").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:11
S10	720	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip member) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:25
S11	484	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:26
S12	2	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) with spring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:39
S13	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and	US-PGPUB; USPAT;	OR	OFF	2016/06/27 14:39

		(385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S14	26	("4953929" | "5608830" | "5675682" | "6409392" | "6511230").PN. OR ("6672898").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:41
S15	49	("5538438" | "5574812" | "5579425" | "5638474" | "5647043").PN. OR ("6250817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:42
S16	31	("20030064630" | "20040009699" | "20040247252" | "20050277335" | "20090275228" | "20100304617" | "20110045683" | "20110124217" | "5090096" | "5233674" | "5308260" | "5358430" | "5638474" | "5647765" | "6250817" | "6254418" | "6357934" | "6398569" | "6544076" | "6595805" | "6612856" | "6746264" | "6764333" | "7314384" | "7473124" | "7534128" | "7588373" | "7651361" | "8235745" | "8382506").PN. OR ("8556645").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:44
S17	0	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:47
S18	6,884	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) with spring not S12	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:47
S19	1,327	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S13	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2016/06/27 14:48

			EPO; JPO; DERWENT; IBM_TDB			
S20	300	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:49
S21	25	(duplex near3 (connector plug)) with (small adj2 factor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:53
S22	0	(duplex near3 (connector plug)) with (small adj2 factor) with pitch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:55
S23	13	(duplex near3 (connector plug)) with pitch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:55
S24	31	(duplex near3 (connector plug)) same ((high large) near3 (density count))	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2016/06/27 15:00

			JPO; DERWENT; IBM_TDB			
S25	1	(12/040986).APP.	USPAT; USOCR	OR	OFF	2016/06/27 15:05
S26	24	("20080037938" | "4645295" | "4784456" | "4787706" | "4871227" | "5579425" | "5731546" | "6048106" | "6250817" | "6325549" | "6485192" | "6551117" | "6607307" | "6632030" | "6762940" | "6824416" | "7013088" | "7031574" | "7077686" | "7090509" | "7178996" | "7350984" | "7421181" | "7488123").PN. OR ("7798727").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 15:05
S27	14	(duplex near3 (connector plug adapter receptacle)) same (pitch with (small$3 reduc$3 reduction mm))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:08
S28	6,622	(connector plug adapter receptacle) same (pitch with (small$3 reduc$3 reduction mm)) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:10
S29	34	(connector plug adapter receptacle) same (pitch with mm with (ferrule fiber)) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:11
S30	59	(duplex near3 (connector plug adapter receptacle)) same ((distance pitch spac$3) with (small$3 reduc$3 reduction mm)) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2016/06/27 15:13

			DERWENT; IBM_TDB			
S31	4	(duplex near3 (connector plug adapter receptacle)) same ((distance pitch spac$3) with (small$3 reduc$3 reduction) with mm) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:14
S32	3	(mini miniatur$5) with (duplex near3 (connector plug adapter receptacle))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:18
S33	0	(duplex near3 (connector plug adapter receptacle)) and (pitch with "4.8" adj1 mm)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:32
S34	0	(duplex near3 (connector plug adapter receptacle)) with ("4.8" adj1 mm)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:33
S35	66	(connector plug adapter receptacle) with ("4.8" adj1 mm)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/06/27 15:33

			T; IBM_TDB			
S36	66	(connector plug adapter receptacle) with ("4.8 mm")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:33
S37	7	(connector plug adapter receptacle) with ("4.8mm")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:33
S38	0	(pull adj1 tab and coupled and latching adj1 arms and remotely adj1 unlatch and narrow adj1 pitch adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:48
S39	0	(pull adj1 tab and coupled and latching adj1 arms and remotely adj1 unlatch and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:48
S40	3	"20150111417"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/07/12 16:35

			T; IBM_TDB			
S41	8	((Kazuyoshi) near2 (Takano)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:32
S42	79	((Jeffrey) near2 (Gniadek)).INV. and connector	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:33
S43	0	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same sping and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:35
S44	313	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:35
S45	33	("20030064630" | "20040009699" | "20040247252" | "20050277335" | "20090275228" | "20100159742" | "20100304617" | "20110045683" | "20110124217" | "5090096" | "5233674" | "5308260" | "5358430" | "5638474" | "5647765" | "6250817" | "6254418" | "6357934" | "6398569" | "6544076" | "6595805" | "6612856" | "6746264" | "6764333" | "7314384" | "7473124" | "7534128" | "7562116" | "7588373" | "7651361" |	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 00:52

		"8235745" | "8382506" | "8425247").PN. OR ("8747141").URPN.				
S46	795	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 01:00
S47	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 01:00
S48	59	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S44 not S47	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 01:03
S49	1	("7052186").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 01:12
S50	0	(pull adj1 tab and disengage and narrow adj1 pitch adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:17
S51	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR;	OR	OFF	2016/09/17 12:17

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S52	10	(US-20160033723-$ or US-20160011383-$ or US-20150177463-$ or US-20140147082-$ or US-20140072263-$ or US-20140050443-$ or US-20120155810-$ or US-20030137651-$).did. or (US-6302596-$).did. or (US-20120155810-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2016/09/17 12:18
S53	6	(duplex near3 (connector plug adapter receptacle)) same (pitch with (small$3 reduc$3 reduction mm)) not S52	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:18
S54	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:20
S55	310	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S54	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:20
S56	0	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S54 not S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:20

S57	32	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S54 not S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:21
S58	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:23
S59	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:25
S60	37	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and ("385".clas. "439".clas.) not S59	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:26
S61	33	("7052186" | "20030063862" | "20060140543" | "20110058773" | "5845036" | "20150111417" | "20100239220" | "20110267742" | "6668113" | "20120237177" | "20120155810" | "6276840" | "7473124").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:41

S62	1	("6276840").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:50
S63	0	("201102677742").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:53
S64	1	("20110267742").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:53
S65	1	("6668113").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:59
S66	1	("20110058773").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 20:56
S67	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2017/03/20 23:00
S68	8	((Kazuyoshi) near2 (Takano)).INV. not S67	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:00
S69	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2017/03/20 23:02
S70	81	((Jeffrey) near2 (Gniadek)).INV. and connector not S69	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/03/20 23:02

			DERWENT; IBM_TDB			
S71	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/03/20 23:03
S72	314	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:03
S73	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:03
S74	14	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S72 not S73 not S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2017/03/20 23:03

			T; IBM_TDB			
S75	18	(US-20150093925-$ or US-20140169749-$ or US-20140127930-$ or US-20130194753-$ or US-20120237177-$ or US-20120064754-$ or US-20110267742-$ or US-20110223792-$ or US-20050059290-$ or US-20040132327-$).did. or (US-9413110-$ or US-6666484-$ or US-6556450-$ or US-6434015-$ or US-6093044-$ or US-5709560-$ or US-5484297-$).did. or (US-20130210261-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2017/03/20 23:05
S76	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:05
S77	334	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S76	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:05
S78	33	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S76 not S77 not S75	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:05
S79	2	(US-20140273593-$).did. or (WO-2013037123-$).did.	US-PGPUB; FPRS	OR	OFF	2017/03/20 23:07
S80	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S79	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2017/03/20 23:07

			JPO; DERWENT; IBM_TDB			
S81	8	(US-20140273593-$ or US-20140235091-$ or US-20140127926-$).did. or (US-7717625-$ or US-7517241-$ or US-7168972-$ or US-6817272-$ or US-4846708-$).did.	US-PGPUB; USPAT	OR	OFF	2017/03/20 23:08
S82	1	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S81	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:08
S83	31	(US-20160156140-$ or US-20150132981-$ or US-20140021915-$ or US-20110274402-$ or US-20110269340-$ or US-20110268412-$ or US-20110268411-$ or US-20110268410-$ or US-20110268409-$ or US-20110268408-$ or US-20110268407-$ or US-20110268406-$ or US-20090046981-$ or US-20090029585-$ or US-20080132101-$ or US-20080070446-$ or US-20040092165-$).did. or (US-8690591-$ or US-7913379-$ or US-6106320-$ or US-5959848-$ or US-5752850-$ or US-5734770-$ or US-5732174-$ or US-5711558-$ or US-5682450-$ or US-4798430-$ or US-4750890-$ or US-4182017-$).did. or (DE-3145444-$).did. or (US-20080070446-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/03/20 23:09
S84	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:09
S85	6	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and ("385".clas. "439".clas.) not S84 not S83	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2017/03/20 23:09

			T; IBM_TDB			
S86	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:10
S87	0	(pull adj1 tab and disengage and narrow adj1 width and connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:11
S88	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2017/07/19 13:32
S89	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:32
S90	6	((Kazuyoshi) near2 (Takano)).INV. not S89 not S88	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:32
S91	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2017/07/19 13:33

S92	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2017/07/19 13:33
S93	68	((Jeffrey) near2 (Gniadek)).INV. and connector not S92 not S91	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:33
S94	110	("20040052473" | "20040136657" | "20040141693" | "20040161958" | "20060089049" | "20060269194" | "20070149062" | "20070230874" | "20070232115" | "20070243749" | "20080044137" | "20080069501" | "20080101757" | "20080226237" | "20080267566" | "20090028507" | "20090214162" | "20090220197" | "20100034502" | "20100322561" | "20110044588" | "20110131801" | "20110177710" | "4762388" | "4764129" | "4840451" | "5212752" | "5317663" | "5348487" | "5444806" | "5481634" | "5506922" | "5570445" | "5588079" | "5684903" | "5687268" | "5937130" | "5956444" | "5971626" | "6041155" | "6206577" | "6206581" | "6227717" | "6247849" | "6461054" | "6478472" | "6551117" | "6579014" | "6648520" | "6854894" | "7090406" | "7090407" | "7091421" | "7111990" | "7113679" | "7150567" | "7153041" | "7198409" | "7207724" | "7258493" | "7281859" | "7315682" | "7325976" | "7325980" | "7329137" | "7354291" | "7387447" | "7390203" | "7431604" | "7463803" | "7465180" | "7561775" | "7591595" | "7594766" | "7641398" | "7695199" | "7699533" | "7824113" | "8251733" | "D323143" | "D533504" | "D534124" | "D543146" | "D558675" | "D572661" | "D641708" | "RE37080").PN. OR ("8465317").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/19 13:38
S95	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:44

S96	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/07/19 13:44
S97	315	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:44
S98	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:44
S99	4	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S97 not S98 not S96 not S95	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:44

S100	16	(US-20170047679-$ or US-20160041349-$ or US-20130045623-$ or US-20070280604-$ or US-20060258201-$ or US-20050191892-$ or US-20050036743-$ or US-20030142917-$).did. or (US-9052473-$ or US-8814229-$ or US-8790022-$ or US-8670238-$ or US-8388367-$ or US-8317534-$ or US-6994478-$ or US-6887092-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:45
S101	18	(US-20150093925-$ or US-20140169749-$ or US-20140127930-$ or US-20130194753-$ or US-20120237177-$ or US-20120064754-$ or US-20110267742-$ or US-20110223792-$ or US-20050059290-$ or US-20040132327-$).did. or (US-9413110-$ or US-6666484-$ or US-6556450-$ or US-6434015-$ or US-6093044-$ or US-5709560-$ or US-5484297-$).did. or (US-20130210261-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2017/07/19 13:45
S102	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:45
S103	342	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S102	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:45
S104	19	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S102 not S103 not S101 not S100	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:45
S105	4	(US-9595786-$ or US-8979569-$).did. or (CN-103718392-$).did.	USPAT; FPRS	OR	OFF	2017/07/19 13:45

S106	2	(US-20140273593-$).did. or (WO-2013037123-$).did.	US-PGPUB; FPRS	OR	OFF	2017/07/19 13:47
S107	6	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S106 not S105	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:47
S108	8	(US-20140273593-$ or US-20140235091-$ or US-20140127926-$).did. or (US-7717625-$ or US-7517241-$ or US-7168972-$ or US-6817272-$ or US-4846708-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:48
S109	1	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S108	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:48
S110	6	(US-20160064860-$).did. or (US-8965168-$ or US-8705926-$ or US-8172608-$ or US-7611372-$ or US-7497721-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:50
S111	31	(US-20160156140-$ or US-20150132981-$ or US-20140021915-$ or US-20110274402-$ or US-20110269340-$ or US-20110268412-$ or US-20110268411-$ or US-20110268410-$ or US-20110268409-$ or US-20110268408-$ or US-20110268407-$ or US-20110268406-$ or US-20090046981-$ or US-20090029585-$ or US-20080132101-$ or US-20080070446-$ or US-20040092165-$).did. or (US-8690591-$ or US-7913379-$ or US-6106320-$ or US-5959848-$ or US-5752850-$ or US-5734770-$ or US-5732174-$ or US-5711558-$ or US-5682450-$ or US-4798430-$ or US-4750890-$ or US-4182017-$).did. or (DE-3145444-$).did. or (US-20080070446-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/07/19 13:50
S112	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls.	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/07/19 13:50

		439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	EPO; JPO; DERWENT; IBM_TDB			
S113	0	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and ("385".clas. "439".clas.) not S112 not S111 not S110	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:50
S114	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:50
S115	1	("8465317").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/19 21:54
S116	1	adaptor with latch$3 with hook$3 with (connector plug) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:13
S117	9	adaptor with latch$3 with hook$3 with (connector plug)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:13

S118	48	adaptor with latch$3 and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:14
S119	1	(13/678686).APP.	USPAT; USOCR	OR	OFF	2017/07/19 23:22
S120	9	("20020168148" | "20090220198" | "5037175" | "7373031" | "7785018").PN. OR ("8834038").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/19 23:22
S121	4	"20160116686"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:31
S122	1	("8465317").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/21 20:54
S123	1	(12/040986).APP.	USPAT; USOCR	OR	OFF	2018/03/01 22:28
S124	24	("20080037938" | "4645295" | "4784456" | "4787706" | "4871227" | "5579425" | "5731546" | "6048106" | "6250817" | "6325549" | "6485192" | "6551117" | "6607307" | "6632030" | "6762940" | "6824416" | "7013088" | "7031574" | "7077686" | "7090509" | "7178996" | "7350984" | "7421181" | "7488123").PN. OR ("7798727").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/01 22:28
S125	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/03/01 22:31
S126	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2018/03/01 22:32

S127	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2018/03/01 22:32
S128	14	((Kazuyoshi) near2 (Takano)).INV. not S127 not S126 not S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 22:32
S129	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/03/01 22:35
S130	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/03/01 22:35
S131	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2018/03/01 22:35
S132	77	((Jeffrey) near2 (Gniadek)).INV. and connector not S131 not S130 not S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 22:35
S133	3,095	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/03/01 23:04

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S134	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2018/03/01 23:05
S135	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2018/03/01 23:05
S136	315	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:05
S137	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:05

S138	485	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S136 not S137 not S135 not S134	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:05
S139	29	("4026624" | "4548455" | "4632121" | "4681387" | "4726783" | "4925398" | "5207593" | "5318457" | "5330366" | "5334041" | "5634809" | "5919056" | "5951316" | "6030244" | "6113416" | "6149451" | "6174190" | "6358081" | "6368140" | "6386898" | "6475014" | "6494732" | "6497585").PN. OR ("6592390").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/01 23:34
S140	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:42
S141	927	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S140 not S138	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:43
S142	266	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S140 not S138	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:43
S143	1	(13/527129).APP.	USPAT; USOCR	OR	OFF	2018/03/01 23:53

S144	16	("5716049" | "7134914" | "7281937" | "7476117" | "7540755" | "7736171" | "7938669" | "8251735" | "8267713").PN. OR ("8444430").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/01 23:53
S145	1	(12/367677).APP.	USPAT; USOCR	OR	OFF	2018/03/02 00:09
S146	44	("20080037938" | "4645295" | "4784456" | "4787706" | "4871227" | "5579425" | "5731546" | "6048106" | "6250817" | "6325549" | "6485192" | "6551117" | "6607307" | "6632030" | "6762940" | "6824416" | "7013088" | "7031574" | "7077686" | "7090509" | "7178996" | "7350984" | "7421181" | "7488123").PN. OR ("7824113").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/02 00:09
S147	36	(US-20160116686-$ or US-20160109661-$ or US-20160054527-$ or US-20140334780-$ or US-20140056562-$ or US-20120329304-$ or US-20120129379-$ or US-20120051699-$ or US-20100112845-$ or US-20100025480-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070098329-$ or US-20060013542-$ or US-20030228777-$).did. or (US-8920045-$ or US-8083417-$ or US-7850371-$ or US-7445389-$ or US-7377699-$ or US-6149450-$ or US-5603630-$ or US-5429522-$ or US-5316495-$ or US-5124506-$ or US-4964809-$ or US-4462656-$ or US-4061411-$).did. or (US-2732531-$).did. or (US-20160109661-$ or US-20120329304-$ or US-20120129379-$ or EP-880106-$ or EP-2700992-$ or EP-1143570-$).did.	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2018/03/02 19:13
S148	1,602	(adaptor receptacle) with latch$3 and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:15
S149	198	(adaptor receptacle) with latch$3 and (pull releas$3 extract$3) near3 (tab handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:20

S150	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2018/03/02 19:22
S151	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2018/03/02 19:22
S152	315	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S153	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S154	485	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S152 not S153 not S151 not S150	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2018/03/02 19:22

			JPO; DERWENT; IBM_TDB			
S155	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S156	266	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S155 not S154	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S157	150	(adaptor receptacle) with latch$3 and (pull releas$3 extract$3) near3 (tab handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147 not S154 not S156	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S158	206	(adaptor receptacle transceiver transponder sfp) with latch$3 and (pull releas$3 extract$3) near3 (tab handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147 not S154 not S156	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:24
S159	19	("5634809").PN. OR ("5915987").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/02 19:43
S160	3	(pull adj1 tab and ramp and disengage and connector).clm.	US-PGPUB;	OR	OFF	2018/03/02 19:46

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S161	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:29
S162	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:29
S163	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2018/08/29 11:29
S164	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2018/08/29 11:29
S165	13	((Kazuyoshi) near2 (Takano)).INV. not S164 not S163 not S162 not S161	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:29
S166	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:30
S167	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:30

S168	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2018/08/29 11:30
S169	87	((Jeffrey) near2 (Gniadek)).INV. and connector not S168 not S167 not S166	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:30
S170	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2018/08/29 11:34

20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-

20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or

		US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S171	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2018/08/29 11:34
S172	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2018/08/29 11:34

		$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S173	316	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:34
S174	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:34
S175	113	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S173 not S174 not S172 not S171 not S170	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:34
S176	21	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S173 not S174 not S172 not S171 not S170	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:37
S177	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2018/08/29 11:38

20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$

		or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S178	489	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S173 not S174 not S172 not S171	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:39
S179	21	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:39
S180	45	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S179 not S178 not S177	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:39
S181	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 21:38
S182	10	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:10

S183	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:10
S184	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:10
S185	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2019/03/31 14:10
S186	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2019/03/31 14:10
S187	46	((Kazuyoshi) near2 (Takano)).INV. not S186 not S185 not S184 not S183 not S182	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:10
S188	24	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:15
S189	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:15
S190	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:15

		2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.				
S191	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2019/03/31 14:15
S192	74	((Jeffrey) near2 (Gniadek)).INV. and connector not S191 not S190 not S189 not S187 not S188	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:15
S193	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/03/31 14:26

		6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.				
S194	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/03/31 14:26

20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or

US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-

		2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S195	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2019/03/31 14:26
S196	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2019/03/31 14:26
S197	320	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:26
S198	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever	US-PGPUB;	OR	OFF	2019/03/31 14:26

		handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S199	31	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S197 not S198 not S196 not S195 not S194 not S193	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:26
S200	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:29
S201	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2019/03/31 14:29

		20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S202	493	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S197 not S198 not S196 not S195	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2019/03/31 14:29

			T; IBM_TDB			
S203	21	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:29
S204	39	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S203 not S202 not S201 not S200	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:29
S205	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:32
S206	25	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15
S207	10	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15

S208	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15
S209	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15
S210	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2019/08/05 19:15
S211	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2019/08/05 19:15
S212	51	((Kazuyoshi) near2 (Takano)).INV. not S211 not S210 not S209 not S208 not S207 not S206	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:15
S213	21	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:16
S214	76	((Kazuyoshi) near2 (Takano)).INV. not S211 not S210 not S209 not S208 not S207	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S215	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-	US-PGPUB;	OR	OFF	2019/08/05 19:17

		20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	USPAT; FPRS			
S216	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:17
S217	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:17
S218	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2019/08/05 19:17
S219	58	((Jeffrey) near2 (Gniadek)).INV. and connector not S218 not S217 not S216 not S214 not S215 not S213	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S220	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/08/05 19:17
S221	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or	US-PGPUB; USPAT;			

		(US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.	DERWENT			
S222	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/08/05 19:17

20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-

20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-

		5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S223	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2019/08/05 19:17
S224	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2019/08/05 19:17

		20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S225	320	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S226	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S227	17	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S225 not S226 not S224 not S223 not S222 not S221 not S220	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S228	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2019/08/05 19:18

S229	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2019/08/05 19:19
S230	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:19
S231	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2019/08/05 19:19

		9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S232	494	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S225 not S226 not S224 not S223	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:19
S233	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:19

S234	36	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S233 not S232 not S231 not S230 not S229	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:19
S235	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:21
S236	23	("20030063862" | "20060140543" | "20090220200" | "20100239220" | "20110058773" | "20110267742" | "20120155810" | "20120237177" | "20120273262" | "20150093083" | "20150111417" | "20160116686" | "5845036" | "5915987" | "6276840" | "6668113" | "7052186" | "7473124" | "8113723" | "8465317" | "9523826" | "9541719" | "9877413").PN.	US-PGPUB; USPAT	OR	OFF	2019/08/05 19:34
S237	28	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2020/07/18 11:20
S238	27	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21

		2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.				
S239	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21
S240	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21
S241	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21
S242	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2020/07/18 11:21
S243	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2020/07/18 11:21
S244	144	((Kazuyoshi) near2 (Takano)).INV. not S243 not S242 not S241 not S240 not S239 not S238 not S237	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:21
S245	14	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2020/07/18 11:23
S246	24	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23

		107407781-$ or CN-107250860-$ or CN-103703631-$).did.				
S247	199	((Kazuyoshi) near2 (Takano)).INV. not S243 not S242 not S241 not S240 not S239	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:23
S248	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S249	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S250	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S251	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2020/07/18 11:23
S252	58	((Jeffrey) near2 (Gniadek)).INV. and connector not S251 not S250 not S249 not S247 not S248 not S246 not S244 not S245	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2020/07/18 11:23

			EPO; JPO; DERWENT; IBM_TDB			
S253	7	(US-20190148881-$ or US-20110143573-$).did. or (US-8425247-$ or US-8414196-$ or US-7950948-$ or US-7950947-$ or US-7357582-$).did.	US-PGPUB; USPAT	OR	ON	2020/07/18 11:25
S254	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2020/07/18 11:25
S255	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2020/07/18 11:25
S256	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-	US-PGPUB;	OR	OFF	2020/07/18 11:25

		20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-	USPAT; USOCR; EPO; JPO; DERWENT			

20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or

US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-

		20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S257	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2020/07/18 11:25
S258	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2020/07/18 11:25
S259	319	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:25
S260	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2020/07/18 11:25

			T; IBM_TDB			
S261	14	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S259 not S260 not S258 not S257 not S256 not S255 not S254 not S253	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:25
S262	12	(US-20180156988-$ or US-20140235091-$).did. or (US-9726331-$ or US-9011161-$ or US-6722912-$ or US-10270213-$ or US-10096940-$).did. or (WO-2017123264-$ or EP-3454428-$ or CN-2596604-$).did. or (EP-3454428-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2020/07/18 11:28
S263	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2020/07/18 11:28
S264	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:28
S265	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2020/07/18 11:28

		20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S266	496	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever	US-PGPUB;	OR	OFF	2020/07/18 11:28

		handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S259 not S260 not S258 not S257	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S267	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:28
S268	41	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S267 not S266 not S265 not S264 not S263 not S262	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:28
S269	5	(pull adj1 tab and disengage and narrow adj1 width adj3 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:29
S270	27	("20030063862" | "20030156796" | "20060140543" | "20090220200" | "20100239220" | "20110058773" | "20110267742" | "20120155810" | "20120237177" | "20120273262" | "20140056562" | "20150030289" | "20150093083" | "20150111417" | "20160116686" | "5845036" | "5915987" | "6276840" | "6668113" | "7052186" | "7473124" | "8113723" | "8465317" | "8556645" | "9523826" | "9541719" | "9877413").PN.	US-PGPUB; USPAT	OR	ON	2020/07/18 11:32
S271	2	"20030156796"	US-PGPUB; USPAT;	OR	OFF	2020/07/18 11:41

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S272	2	("10520690").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:51
S273	2	("8465317").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 12:21
S274	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/01/24 11:38
S275	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/01/24 11:38
S276	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/01/24 11:38
S277	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/01/24 11:38
S278	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/01/24 11:38

S279	256	((Kazuyoshi) near2 (Takano)).INV. not S278 not S277 not S276 not S275 not S274	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:38
S280	8	(US-20130252453-$ or US-20110230079-$ or US-20110230077-$).did. or (US-8523597-$).did. or (US-7326074-$ or US-5382176-$ or US-20040033027-$ or JP-3162759-$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2021/01/24 11:40
S281	7	(US-20190148881-$ or US-20110143573-$).did. or (US-8425247-$ or US-8414196-$ or US-7950948-$ or US-7950947-$ or US-7357582-$).did.	US-PGPUB; USPAT	OR	ON	2021/01/24 11:41
S282	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/01/24 11:41
S283	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/01/24 11:41

		or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.				
S284	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2021/01/24 11:41

20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-

7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$

		or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S285	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2021/01/24 11:41
S286	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2021/01/24 11:41
S287	319	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2021/01/24 11:41

			T; IBM_TDB			
S288	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:41
S289	6	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S287 not S288 not S286 not S285 not S284 not S283 not S282 not S281 not S280	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:41
S290	13	(US-20190215585-$ or US-20190044281-$ or US-20040023546-$).did. or (US-9726332-$ or US-10541494-$ or US-10454214-$ or US-10228521-$ or US-10158194-$).did. or (JP-5738489-$ or CN-109473834-$ or CN-108701937-$).did. or (US-7318740-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/01/24 11:42
S291	12	(US-20180156988-$ or US-20140235091-$).did. or (US-9726331-$ or US-9011161-$ or US-6722912-$ or US-10270213-$ or US-10096940-$).did. or (WO-2017123264-$ or EP-3454428-$ or CN-2596604-$).did. or (EP-3454428-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/01/24 11:43
S292	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2021/01/24 11:43
S293	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/01/24 11:43

S294	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2021/01/24 11:43

		US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S295	496	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S287 not S288 not S286 not S285	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S296	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S297	37	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S296 not S295 not S294 not S293 not S292 not S291 not S290	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S298	5	(pull adj1 tab and disengage and narrow adj1 width adj3 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2021/01/24 11:43

			DERWENT; IBM_TDB			
S299	1	("7234879").PN.	US-PGPUB; USPAT	OR	ON	2021/01/24 11:45
S300	2	("8465317").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/25 13:33
S301	98	(US-20210018699-$ or US-20200408998-$ or US-20200393630-$ or US-20200386967-$ or US-20200386951-$ or US-20200310048-$ or US-20200310046-$ or US-20200310041-$ or US-20200285000-$ or US-20200278504-$ or US-20200271866-$ or US-20200257060-$ or US-20200218015-$ or US-20200183097-$ or US-20200183093-$ or US-20200174199-$ or US-20200166716-$ or US-20200150353-$ or US-20200142133-$ or US-20200132944-$ or US-20200116957-$ or US-20200116951-$ or US-20200110228-$ or US-20200081201-$ or US-20200081200-$ or US-20200081195-$).did. or (US-20200064564-$ or US-20200049904-$ or US-20200049903-$ or US-20200012050-$ or US-20200003963-$ or US-20190377139-$ or US-20190353855-$ or US-20190353852-$ or US-20190346634-$ or US-20190339475-$ or US-20190324215-$ or US-20190310432-$ or US-20190302374-$ or US-20190285806-$ or US-20190271816-$ or US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190064447-$ or US-20190056557-$ or US-20180364422-$ or US-20180356600-$).did. or (US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10877226-$ or US-10712512-$ or US-10712511-$ or US-10678000-$ or US-10444444-$ or US-10409009-$ or US-10295753-$ or US-10197740-$ or US-10158194-	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:30

		$).did. or (WO-2020172661-$ or WO-2020086184-$ or WO-2020056002-$ or WO-2020055439-$ or WO-2019204527-$ or WO-2019191522-$ or WO-2019190616-$ or WO-2019177762-$ or WO-2019038641-$ or WO-2018218153-$ or WO-2018213514-$ or WO-2018140981-$ or WO-2018140873-$ or GB-2574320-$ or DE-102019206527-$ or CN-110658589-$ or CN-110426790-$ or CN-110031939-$ or CN-108701937-$ or CN-108603987-$ or CA-3069706-$ or CA-3049566-$).did.				
S302	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:30
S303	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:30
S304	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:30
S305	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/06/14 14:30
S306	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/06/14 14:30
S307	223	((Kazuyoshi) near2 (Takano)).INV. not S306 not S305 not S304 not S303 not S302 not S301	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:30
S308	14	(US-20200096707-$ or US-20190265418-$ or US-20100284662-$).did. or (US-9829654-$ or US-7471869-$ or US-10539750-$ or US-10488599-$ or US-10396512-$ or US-10330869-$ or US-10078187-$).did. or (MX-2014004053-$ or EP-3084232-$ or EP-1875287-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:37

S309	29	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:37
S310	28	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S311	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S312	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S313	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S314	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/06/14 14:37
S315	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/06/14 14:37

S316	264	((Kazuyoshi) near2 (Takano)).INV. not S315 not S314 not S313 not S312 not S311 not S310 not S309	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:37
S317	15	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2021/06/14 14:37
S318	25	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S319	319	((Kazuyoshi) near2 (Takano)).INV. not S315 not S314 not S313 not S312 not S311	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:37
S320	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S321	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37

S322	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S323	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2021/06/14 14:37
S324	80	((Jeffrey) near2 (Gniadek)).INV. and connector not S323 not S322 not S321 not S319 not S320 not S318 not S316 not S317 not S307 not S308	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:37
S325	4	(US-20110230078-$).did. or (US-8602807-$ or US-8545254-$ or US-8545253-$).did.	US-PGPUB; USPAT	OR	ON	2021/06/14 14:39
S326	8	(US-20130252453-$ or US-20110230079-$ or US-20110230077-$).did. or (US-8523597-$).did. or (US-7326074-$ or US-5382176-$ or US-20040033027-$ or JP-3162759-$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2021/06/14 14:40
S327	7	(US-20190148881-$ or US-20110143573-$).did. or (US-8425247-$ or US-8414196-$ or US-7950948-$ or US-7950947-$ or US-7357582-$).did.	US-PGPUB; USPAT	OR	ON	2021/06/14 14:40
S328	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/06/14 14:40
S329	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$	US-PGPUB; USPAT;	OR	OFF	2021/06/14 14:40

		or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.	DERWENT			
S330	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2021/06/14 14:40

20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-

20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-

		5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S331	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2021/06/14 14:40
S332	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2021/06/14 14:40

		20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S333	319	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:40
S334	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:40
S335	2	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S333 not S334 not S332 not S331 not S330 not S329 not S328 not S327 not S326 not S325	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:40
S336	14	(US-20200335910-$ or US-20200303862-$ or US-20200266580-$ or US-20190190199-$).did. or (US-9726361-$ or US-9219333-$ or US-6702603-$ or US-10886679-$ or US-10840640-$).did. or (WO-2019139802-$ or EP-3427346-$ or CN-111239928-$).did. or (JP-2019050100-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2021/06/14 14:41
S337	13	(US-20190215585-$ or US-20190044281-$ or US-20040023546-$).did. or (US-9726332-$ or US-	US-PGPUB;	OR	ON	2021/06/14 14:42

		10541494-$ or US-10454214-$ or US-10228521-$ or US-10158194-$).did. or (JP-5738489-$ or CN-109473834-$ or CN-108701937-$).did. or (US-7318740-$).did.	USPAT; FPRS; DERWENT			
S338	12	(US-20180156988-$ or US-20140235091-$).did. or (US-9726331-$ or US-9011161-$ or US-6722912-$ or US-10270213-$ or US-10096940-$).did. or (WO-2017123264-$ or EP-3454428-$ or CN-2596604-$).did. or (EP-3454428-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/06/14 14:42
S339	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2021/06/14 14:42
S340	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:42
S341	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2021/06/14 14:42

		20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S342	496	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S333 not S334 not S332 not S331	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:42

S343	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:42
S344	213	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch hook) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S343 not S342 not S341 not S340 not S339 not S338 not S337 not S336	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:42
S345	401	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch hook) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,4284.cpc.) not S343 not S342 not S341 not S340 not S339 not S338 not S337 not S336	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:44
S346	74	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch hook) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S343 not S342 not S341 not S340 not S339 not S338 not S337 not S336 not S345	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 15:08
S347	21	("5201669" | "5207593" | "5486117" | "5674088" | "5788527" | "5806152" | "5876232" | "6007361" | "6010352").PN. OR ("6343948").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/06/14 15:12
S348	5	(pull adj1 tab and disengage and narrow adj1 width adj3 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2021/06/14 15:16

			DERWENT; IBM_TDB			
S349	91	(US-20210173155-$ or US-20210149120-$ or US-20210141168-$ or US-20210124131-$ or US-20210109292-$ or US-20210088733-$ or US-20210080659-$ or US-20210063649-$ or US-20210026083-$ or US-20200379192-$ or US-20200278503-$ or US-20200257063-$ or US-20190339464-$ or US-20190324218-$ or US-20190285808-$ or US-20190285807-$ or US-20190243072-$ or US-20180341069-$ or US-20180335577-$).did. or (US-11029470-$ or US-11002923-$ or US-10989884-$ or US-10948664-$ or US-10921531-$ or US-10921530-$ or US-10871619-$ or US-10866369-$ or US-10838152-$ or US-10823915-$ or US-10725248-$ or US-10641972-$ or US-10620384-$ or US-10520688-$ or US-10416394-$ or US-10359583-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2020264217-$ or WO-2020252355-$ or WO-2020232452-$ or WO-2020219722-$ or WO-2020198755-$ or WO-2020198501-$ or WO-2020181106-$ or WO-2020163683-$ or WO-2020142541-$ or WO-2020118176-$ or WO-2020097621-$ or WO-2020081704-$ or WO-2020055440-$ or WO-2020036992-$ or WO-2020033687-$ or WO-2020010314-$ or WO-2020006356-$ or WO-2019222189-$ or WO-2019183070-$ or WO-2019014659-$ or WO-2018204382-$ or WO-2018111617-$ or GB-2575158-$ or EP-3427346-$ or EP-3408700-$ or EP-3379311-$).did. or (CN-112088327-$ or CN-111258002-$ or CN-111239928-$ or CN-111239919-$ or CN-111158089-$ or CN-111103659-$ or CN-111033339-$ or CN-110579843-$ or CN-110441867-$ or CN-110389412-$ or CN-109752803-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or CA-3095881-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:24
S350	99	(US-20210018699-$ or US-20200408998-$ or US-20200393630-$ or US-20200386967-$ or US-20200386951-$ or US-20200310048-$ or US-20200310046-$ or US-20200310041-$ or US-20200285000-$ or US-20200278504-$ or US-20200271866-$ or US-20200257060-$ or US-20200218015-$ or US-20200183097-$ or US-20200183093-$ or US-20200174199-$ or US-20200166716-$ or US-20200150353-$ or US-20200142133-$ or US-20200132944-$ or US-20200116957-$ or US-20200116951-$ or US-	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:24

		20200110228-$ or US-20200081201-$ or US-20200081200-$ or US-20200081195-$).did. or (US-20200064564-$ or US-20200049904-$ or US-20200049903-$ or US-20200012050-$ or US-20200003963-$ or US-20190377139-$ or US-20190353855-$ or US-20190353852-$ or US-20190346634-$ or US-20190339475-$ or US-20190324215-$ or US-20190310432-$ or US-20190302374-$ or US-20190285806-$ or US-20190271816-$ or US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190064447-$ or US-20190056557-$ or US-20180364422-$ or US-20180356600-$).did. or (US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10877226-$ or US-10712512-$ or US-10712511-$ or US-10678000-$ or US-10444444-$ or US-10409009-$ or US-10295753-$ or US-10197740-$ or US-10158194-$).did. or (WO-2020172661-$ or WO-2020086184-$ or WO-2020056002-$ or WO-2020055439-$ or WO-2019204527-$ or WO-2019191522-$ or WO-2019190616-$ or WO-2019177762-$ or WO-2019038641-$ or WO-2018218153-$ or WO-2018213514-$ or WO-2018140981-$ or WO-2018140873-$ or GB-2574320-$ or DE-102019206527-$ or CN-110658589-$ or CN-110426790-$ or CN-110031939-$ or CN-108701937-$ or CN-108603987-$ or CA-3069706-$ or CA-3049566-$).did.				
S351	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:24
S352	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:24
S353	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:24

S354	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/12/21 22:24
S355	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/12/21 22:24
S356	237	((Kazuyoshi) near2 (Takano)).INV. not S355 not S354 not S353 not S352 not S351 not S350 not S349	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:24
S357	1	((Kazuyoshi) near2 (Takano)).INV. not S355 not S354 not S353 not S352 not S351 not S350 not S349 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:25
S358	16	(US-20210041643-$ or US-20200393629-$ or US-20200333537-$ or US-20200142141-$ or US-20200057206-$ or US-20190341729-$ or US-20170031108-$ or US-20100329625-$ or US-20090285540-$).did. or (US-10107972-$).did. or (KR-20140143351-$ or CN-110308524-$ or AU-2010201115-$ or AU-2005301961-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:26
S359	326	((Kazuyoshi) near2 (Takano)).INV. not S355 not S354 not S353 not S352 not S351 not S350	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S360	15	(US-20200096707-$ or US-20190265418-$ or US-20100284662-$).did. or (US-9829654-$ or US-7471869-$ or US-10539750-$ or US-10488599-$ or US-10396512-$ or US-10330869-$ or US-	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:26

		10078187-$).did. or (MX-2014004053-$ or EP-3084232-$ or EP-1875287-$).did.				
S361	30	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:26
S362	28	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S363	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S364	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S365	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S366	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/12/21 22:26

S367	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/12/21 22:26
S368	366	((Kazuyoshi) near2 (Takano)).INV. not S367 not S366 not S365 not S364 not S363 not S362 not S361	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S369	15	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2021/12/21 22:26
S370	25	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S371	422	((Kazuyoshi) near2 (Takano)).INV. not S367 not S366 not S365 not S364 not S363	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S372	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S373	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or	US-PGPUB;	OR	OFF	2021/12/21 22:26

		WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	USPAT; FPRS			
S374	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S375	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2021/12/21 22:26
S376	46	((Jeffrey) near2 (Gniadek)).INV. and connector not S375 not S374 not S373 not S371 not S372 not S370 not S368 not S369 not S359 not S360 not S358 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S377	386	(US-20160161681-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160111819-$ or US-20160109661-$ or US-20150357758-$ or US-20150338588-$ or US-20150318641-$ or US-20150288102-$ or US-20150280362-$ or US-20150244109-$ or US-20150236449-$ or US-20150212283-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162704-$ or US-20150147033-$ or US-20150093083-$ or US-20150044898-$ or US-20150030289-$ or US-20150017828-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322948-$ or US-20140286613-$ or US-20140273594-$ or US-20140273585-$ or US-20140235091-$ or US-20140213092-$ or US-20140193993-$ or US-20140179147-$ or US-20140148040-$ or US-20140148032-$ or US-20140127926-$ or US-20140062216-$ or US-20140057474-$ or US-20140029900-$ or US-20130303014-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2021/12/21 23:07

20130288510-$ or US-20130279857-$ or US-20130251314-$ or US-20130244459-$ or US-20130210261-$ or US-20130196530-$ or US-20130183846-$ or US-20130156379-$ or US-20130102182-$ or US-20130102163-$ or US-20130094811-$).did. or (US-20130051738-$ or US-20130040486-$ or US-20130005173-$ or US-20130004131-$ or US-20120329304-$ or US-20120295462-$ or US-20120282796-$ or US-20120251058-$ or US-20120251054-$ or US-20120115348-$ or US-20120088392-$ or US-20120052712-$ or US-20120045922-$ or US-20110318949-$ or US-20110312207-$ or US-20110306229-$ or US-20110305422-$ or US-20110294328-$ or US-20110293221-$ or US-20110287649-$ or US-20110286702-$ or US-20110268390-$ or US-20110263151-$ or US-20110263150-$ or US-20110263149-$ or US-20110244704-$ or US-20110237113-$).did. or (US-20110201224-$ or US-20110183541-$ or US-20110176773-$ or US-20110070756-$ or US-20110059642-$ or US-20110021057-$ or US-20100328852-$ or US-20100284657-$ or US-20100255708-$ or US-20100220961-$ or US-20100178789-$ or US-20100144187-$ or US-20100144186-$ or US-20100136809-$ or US-20100112845-$ or US-20100105238-$ or US-20100087084-$ or US-20090318007-$ or US-20090318004-$ or US-20090311903-$ or US-20090291584-$ or US-20090239406-$ or US-20090239405-$ or US-20090148106-$ or US-20090117772-$ or US-20090075513-$ or US-20090047818-$).did. or (US-20080311781-$ or US-20080268694-$ or US-20080194135-$ or US-20080194133-$ or US-20080090426-$ or US-20080076290-$ or US-20080057771-$ or US-20070178741-$ or US-20070173099-$ or US-20070087614-$ or US-20070049076-$ or US-20070025665-$ or US-20060189197-$ or US-20060089039-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060019525-$ or US-20060013539-$ or US-20050259924-$ or US-20050117855-$ or US-20050095899-$ or US-20030228777-$ or US-20030169975-$ or US-20030109164-$ or US-20030096527-$ or US-20030031431-$).did. or (US-20030008546-$ or US-20020182922-$ or US-20020090855-$ or US-20020019161-$ or US-20020006253-$).did. or (US-9025343-$ or US-8986036-$ or US-8985867-$ or US-8647135-$ or US-8616909-$ or US-8608492-$ or US-8562372-$ or US-8545252-$ or US-8500470-$ or US-8403695-$ or US-8257106-$ or US-8241053-$ or

US-8206164-$ or US-8172599-$ or US-8083535-$ or US-8052458-$ or US-8043106-$ or US-8033853-$ or US-7972164-$ or US-7896665-$ or US-7862352-$ or US-7824113-$ or US-7811115-$ or US-7806599-$ or US-7798838-$ or US-7744398-$).did. or (US-7708474-$ or US-7695302-$ or US-7690848-$ or US-7658635-$ or US-7645156-$ or US-7621770-$ or US-7578692-$ or US-7549886-$ or US-7542732-$ or US-7540756-$ or US-7540755-$ or US-7517241-$ or US-7503793-$ or US-7484991-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7455545-$ or US-7442060-$ or US-7440670-$ or US-7422481-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7402070-$ or US-7367842-$ or US-7361045-$).did. or (US-7354292-$ or US-7354291-$ or US-7322845-$ or US-7318740-$ or US-7311544-$ or US-7309250-$ or US-7267493-$ or US-7255587-$ or US-7182524-$ or US-7179110-$ or US-7168972-$ or US-7144266-$ or US-7090509-$ or US-7066759-$ or US-7025636-$ or US-7004780-$ or US-6986686-$ or US-6943661-$ or US-6916196-$ or US-6866535-$ or US-6851867-$ or US-6835086-$ or US-6811422-$ or US-6793516-$ or US-6692306-$ or US-6692284-$ or US-6672898-$).did. or (US-6666698-$ or US-6595792-$ or US-6575759-$ or US-6570768-$ or US-6461176-$ or US-6413104-$ or US-6409392-$ or US-6394850-$ or US-6394842-$ or US-6352444-$ or US-6343948-$ or US-6341972-$ or US-6332798-$ or US-6332784-$ or US-6309247-$ or US-6299362-$ or US-6298190-$ or US-6276839-$ or US-6250817-$ or US-6234823-$ or US-6234683-$ or US-6196858-$ or US-6179627-$ or US-6179477-$ or US-6176729-$ or US-6146181-$ or US-6086263-$).did. or (US-6085006-$ or US-6080002-$ or US-6077101-$ or US-5971789-$ or US-5921799-$ or US-5879194-$ or US-5845036-$ or US-5829999-$ or US-5795175-$ or US-5773332-$ or US-5675682-$ or US-5641298-$ or US-5639254-$ or US-5609498-$ or US-5603631-$ or US-5586903-$ or US-5570445-$ or US-5564939-$ or US-5561727-$ or US-5556295-$ or US-5427543-$ or US-5382176-$ or US-5363460-$ or US-5362249-$ or US-5352132-$ or US-5338218-$ or US-5336103-$).did. or (US-5317485-$ or US-5314345-$ or US-5308260-$ or US-5305380-$ or US-5217384-$ or US-5174293-$ or US-5146525-$ or US-5106312-$ or US-5069634-$ or US-5011422-$ or US-4969838-$ or US-4953940-$ or US-4946248-$ or US-4925396-$ or US-4911646-$ or US-4873614-$ or US-

		4865557-$ or US-4862500-$ or US-4846708-$ or US-4787860-$ or US-4750898-$ or US-4712861-$ or US-4709975-$ or US-4702537-$ or US-4687271-$ or US-4687270-$ or US-4669797-$).did. or (US-4639061-$ or US-4615575-$ or US-4603931-$ or US-4586766-$ or US-4579410-$ or US-4544216-$ or US-4530556-$ or US-4469386-$ or US-4462656-$ or US-4448470-$ or US-4431244-$ or US-4407556-$ or US-4319733-$ or US-4130330-$ or US-4130329-$ or US-4120553-$ or US-4113179-$ or US-4108522-$ or US-4074928-$ or US-4074341-$ or US-4039237-$ or US-3982803-$ or US-3954321-$ or US-3919573-$ or US-3861770-$ or US-3843224-$ or US-3829821-$).did. or (US-3825882-$ or US-3824552-$ or US-3755772-$ or US-3699498-$ or US-3665372-$ or US-3643205-$ or US-3573702-$).did. or (US-3525069-$ or US-3500130-$ or US-3444329-$ or US-3417365-$ or US-3409859-$ or US-3409858-$ or US-3337836-$ or US-3287688-$ or US-3281758-$ or US-3154361-$ or US-3134945-$ or US-3111354-$ or US-3020513-$ or US-3002170-$ or US-2984815-$ or US-2748362-$ or US-2735993-$ or US-2438515-$ or US-2085399-$ or US-1998129-$ or US-1955146-$ or US-1906929-$ or US-1783342-$ or US-1495778-$).did. or (DE-3731718-$ or DE-3725261-$).did. or (JP-03084880-$).did. or (WO-2010125548-$ or WO-2010097603-$ or WO-2010038283-$ or WO-2006053717-$ or WO-0127660-$ or US-5011422-$ or US-20150162709-$ or US-20150093083-$ or US-20140219616-$ or US-20140193993-$ or US-20140148040-$ or US-20130252453-$ or US-20120251054-$ or US-20120190230-$ or US-20120088392-$ or US-20110305422-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20030108300-$ or US-20020076968-$ or DE-202011052551-$ or DE-102014109024-$ or DE-102013225501-$ or DE-102013208249-$).did.				
S378	118	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) and @ad<"20160115" not S377	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:07
S379	15	(US-20160154190-$ or US-20160109661-$ or US-20150212282-$ or US-20110286702-$ or US-	US-PGPUB;	OR	ON	2021/12/21 23:11

		20100220961-$ or US-20090148106-$).did. or (US-7824113-$ or US-7708474-$ or US-7703987-$ or US-6672898-$ or US-6409392-$ or US-6250817-$ or US-6085006-$ or US-5675682-$).did. or (DE-102014109024-$).did.	USPAT; DERWENT			
S380	7	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S379 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:12
S381	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:13
S382	102	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3879,4284.cpc.) not S381	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:13
S383	28	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3879,4284.cpc.) not S381 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:14
S384	33	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,3879,3885,3893.cpc.) not S381 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2021/12/21 23:17

			JPO; DERWENT; IBM_TDB			
S385	185	(US-20160126671-$ or US-20160126667-$ or US-20160104981-$ or US-20160028185-$ or US-20160020555-$ or US-20150364868-$ or US-20150288102-$ or US-20150280362-$ or US-20150236447-$ or US-20150180172-$ or US-20150104967-$ or US-20150037999-$ or US-20150020189-$ or US-20150011111-$ or US-20140295684-$ or US-20140295683-$ or US-20140273593-$ or US-20140242818-$ or US-20140235087-$ or US-20140187075-$ or US-20140179143-$ or US-20140162497-$ or US-20140134898-$ or US-20140113508-$ or US-20140094051-$ or US-20140051277-$).did. or (US-20140045362-$ or US-20130303014-$ or US-20130288510-$ or US-20130288507-$ or US-20130280932-$ or US-20130252448-$ or US-20130210261-$ or US-20130196549-$ or US-20130183846-$ or US-20130130532-$ or US-20130094811-$ or US-20120294571-$ or US-20120220147-$ or US-20120108097-$ or US-20120058665-$ or US-20120058652-$ or US-20120052714-$ or US-20120045923-$ or US-20110318950-$ or US-20110312207-$ or US-20110212645-$ or US-20110177710-$ or US-20110111618-$ or US-20110104929-$ or US-20110056723-$ or US-20110014804-$ or US-20100246142-$).did. or (US-20100197159-$ or US-20100144186-$ or US-20100087084-$ or US-20090311903-$ or US-20090149731-$ or US-20090088023-$ or US-20090007399-$ or US-20080248671-$ or US-20070123076-$ or US-20070059953-$ or US-20060134985-$ or US-20060134961-$ or US-20060094281-$ or US-20060030192-$ or US-20050106918-$ or US-20040166711-$ or US-20040161958-$ or US-20040110406-$ or US-20040092150-$ or US-20040077226-$ or US-20040043664-$ or US-20020090855-$ or US-20020076962-$ or US-20020057550-$).did. or (US-9318845-$ or US-9263831-$ or US-9257804-$ or US-9184538-$ or US-8926347-$ or US-7862384-$ or US-7484991-$ or US-7465181-$ or US-7422471-$ or US-7318740-$ or US-7083459-$ or US-7066746-$ or US-6955563-$ or US-6913482-$ or US-6884099-$ or US-6811422-$ or US-6793516-$ or US-6745911-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6589066-$ or US-6579029-$ or US-6533603-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; DERWENT	OR	ON	2021/12/22 12:45

		6439918-$).did. or (US-6406309-$ or US-6394842-$ or US-6371787-$ or US-6358080-$ or US-6332795-$ or US-6283781-$ or US-6045393-$ or US-6030244-$ or US-6019630-$ or US-5873737-$ or US-5857866-$ or US-5823809-$ or US-5795175-$ or US-5751135-$ or US-5727966-$ or US-5676556-$ or US-5645440-$ or US-5616038-$ or US-5613869-$ or US-5575675-$ or US-5575672-$ or US-5571030-$ or US-5538439-$ or US-5474461-$ or US-5435748-$ or US-5409393-$ or US-5350312-$).did. or (US-5217384-$ or US-5104330-$ or US-5074807-$ or US-5021003-$ or US-4886462-$ or US-4709975-$ or US-4681386-$ or US-4624472-$ or US-4589716-$ or US-4586766-$ or US-4550961-$ or US-4361375-$ or US-4181386-$ or US-4172626-$ or US-4120553-$ or US-4113337-$ or US-4093332-$ or US-4074928-$ or US-4061407-$ or US-3801757-$).did. or (US-3409858-$ or US-3243659-$ or US-3209303-$ or US-3178674-$ or US-3093773-$ or US-3020513-$ or US-2760174-$ or US-2748362-$ or US-2724094-$).did. or (WO-2014202489-$ or WO-2014168127-$ or WO-2013162590-$ or WO-2013037123-$ or WO-2009130529-$ or JP-H04133370-$ or GB-1039396-$ or EP-2644442-$ or EP-1578183-$ or EP-1017262-$ or EP-0758150-$ or EP-0568018-$ or DE-3731718-$ or DE-3123825-$ or DE-20317563-$ or DE-10222877-$).did. or (WO-2014202489-$).did.				
S386	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/22 12:46
S387	342	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,3879,3885,3893.cpc.) not S386 not S385 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/22 12:46

S388	1	(remote adj1 release and pulled and depressible adj1 latching adj1 arm and optical adj1 fiber adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/12/22 15:53
S389	0	(17/342220).APP.	USPAT; USOCR	OR	ON	2021/12/22 15:54
S390	50	(US-20180156988-$ or US-20170371109-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160109661-$ or US-20150212283-$ or US-20150212282-$ or US-20150111417-$ or US-20150030289-$ or US-20140056562-$ or US-20130089995-$ or US-20120294571-$ or US-20120237177-$ or US-20120155810-$ or US-20110286702-$ or US-20110081113-$ or US-20100220961-$ or US-20100112845-$ or US-20090275228-$ or US-20090220227-$ or US-20090220200-$ or US-20060189197-$ or US-20030063862-$).did. or (US-9625658-$ or US-9599778-$ or US-9293862-$ or US-9063303-$ or US-9048568-$ or US-8747141-$ or US-8556645-$ or US-7473124-$ or US-7465180-$ or US-7421181-$ or US-7390203-$ or US-7354292-$ or US-7350984-$ or US-7318740-$ or US-7052186-$ or US-6672898-$ or US-6668113-$ or US-6592390-$ or US-6302596-$ or US-6276840-$ or US-5915987-$ or US-5845036-$ or US-5603630-$).did. or (WO-2017123264-$).did. or (US-20120088392-$ or DE-102014109024-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/12/22 17:41
S391	8	S390 and MT	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/22 17:42
S392	1	(15/670161).APP.	USPAT; USOCR	OR	ON	2021/12/22 17:47
S393	6	("9726830").PN.	US-PGPUB; USPAT; USOCR;	OR	OFF	2021/12/22 17:49

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S394	14	("20040109646" | "20090176401" | "20130019423" | "5602951" | "5845036" | "6206581" | "6422759" | "8221007").PN. OR ("9726830").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:50
S395	701	LC with MT and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:55
S396	0	LC with MT with capacity and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:55
S397	3	LC with MT same capacity and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:56
S398	36	("20030161603" | "20040218885" | "4155159" | "5119547" | "6785460").PN. OR ("7020376").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:57
S399	108	LC with MT same duplex and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:58
S400	8	LC with MT near3 ferrule same duplex and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 18:03
S401	52	LC with MT near3 ferrule and ("385".clas. G02B6$.cpc.) and @ad<"20160115" not S400	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 18:04
S402	8	"20130022317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/23 12:39

S403	178	(US-20170184798-$ or US-20170110832-$ or US-20170108430-$ or US-20170025791-$ or US-20160190737-$ or US-20160161688-$ or US-20160161682-$ or US-20160111819-$ or US-20160091670-$ or US-20160062057-$ or US-20150277066-$ or US-20150078710-$ or US-20140133821-$ or US-20140050443-$ or US-20130260595-$ or US-20130244472-$ or US-20130216186-$ or US-20130183001-$ or US-20130156379-$ or US-20120251054-$ or US-20100209050-$ or US-20100136809-$ or US-20090046981-$ or US-20090010600-$ or US-20080273837-$ or US-20080085082-$).did. or (US-20070280599-$ or US-20070160327-$ or US-20070025665-$ or US-20060204178-$ or US-20060169856-$ or US-20060093282-$ or US-20050286833-$ or US-20050069262-$ or US-20040218885-$ or US-20040165832-$ or US-20040105625-$ or US-20040091214-$ or US-20040033027-$ or US-20040013388-$ or US-20030165302-$ or US-20030165301-$ or US-20020111067-$ or US-20020076165-$ or US-20020006253-$).did. or (US-9882309-$ or US-9799990-$ or US-9755358-$ or US-9748708-$ or US-9698529-$ or US-9640907-$ or US-9564710-$ or US-9509095-$ or US-9484669-$ or US-9413106-$ or US-9391399-$ or US-9362662-$ or US-9350118-$ or US-9225110-$ or US-9203183-$ or US-9197015-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9088101-$ or US-9077110-$ or US-9065207-$ or US-9048567-$ or US-9004935-$ or US-8986036-$ or US-8979569-$).did. or (US-8894426-$ or US-8876539-$ or US-8876404-$ or US-8647134-$ or US-8641442-$ or US-8585426-$ or US-8573998-$ or US-8556646-$ or US-8545252-$ or US-8506315-$ or US-8475197-$ or US-8444430-$ or US-8439699-$ or US-8241053-$ or US-8206171-$ or US-8169783-$ or US-8083539-$ or US-8062049-$ or US-8057245-$ or US-8038484-$ or US-7997914-$ or US-7980875-$ or US-7753710-$ or US-7744399-$ or US-7455545-$ or US-7442063-$ or US-7322845-$).did. or (US-7314384-$ or US-7309250-$ or US-7255587-$ or US-7186134-$ or US-6881095-$ or US-6875033-$ or US-6866535-$ or US-6814606-$ or US-6805573-$ or US-6726369-$ or US-6666704-$ or US-6648666-$ or US-6599025-$ or US-6592391-$ or US-6572273-$ or US-6532653-$ or US-6515866-$ or US-6464402-$ or US-6389212-$ or US-6325547-$ or US-6287018-$ or US-6276839-$ or US-6264374-$ or US-6238101-$ or US-6206581-$ or US-6186670-$ or US-6142676-	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2021/12/24 13:14

		$).did. or (US-6095841-$ or US-6086263-$ or US-6045270-$ or US-5971626-$ or US-5956444-$ or US-5938466-$ or US-5883995-$ or US-5845036-$ or US-5757997-$ or US-5748818-$ or US-5737463-$ or US-5734770-$ or US-5732174-$ or US-5721799-$ or US-5600747-$ or US-5420951-$ or US-5363460-$ or US-5344194-$ or US-5245683-$ or US-5073042-$ or US-4848870-$ or US-4818058-$ or US-4798430-$ or US-4712861-$ or US-4168109-$ or US-4084882-$ or US-3995363-$).did. or (US-3951514-$ or US-10027060-$).did. or (MX-150396-$ or GB-201416966-$ or GB-1500102-$ or EP-2277240-$ or EP-0524392-$ or DE-69303217-$ or CN-103718392-$ or BE-649814-$ or AT-394912-$).did. or (JP-2014203722-$ or JP-2012099254-$ or JP-04034876-$).did. or (WO-2015153090-$ or US-7318740-$ or US-20120251054-$ or GB-2159345-$ or EP-1079473-$ or EP-1017262-$ or CA-2726185-$).did.				
S404	185	(US-20160126671-$ or US-20160126667-$ or US-20160104981-$ or US-20160028185-$ or US-20160020555-$ or US-20150364868-$ or US-20150288102-$ or US-20150280362-$ or US-20150236447-$ or US-20150180172-$ or US-20150104967-$ or US-20150037999-$ or US-20150020189-$ or US-20150011111-$ or US-20140295684-$ or US-20140295683-$ or US-20140273593-$ or US-20140242818-$ or US-20140235087-$ or US-20140187075-$ or US-20140179143-$ or US-20140162497-$ or US-20140134898-$ or US-20140113508-$ or US-20140094051-$ or US-20140051277-$).did. or (US-20140045362-$ or US-20130303014-$ or US-20130288510-$ or US-20130288507-$ or US-20130280932-$ or US-20130252448-$ or US-20130210261-$ or US-20130196549-$ or US-20130183846-$ or US-20130130532-$ or US-20130094811-$ or US-20120294571-$ or US-20120220147-$ or US-20120108097-$ or US-20120058665-$ or US-20120058652-$ or US-20120052714-$ or US-20120045923-$ or US-20110318950-$ or US-20110312207-$ or US-20110212645-$ or US-20110177710-$ or US-20110111618-$ or US-20110104929-$ or US-20110056723-$ or US-20110014804-$ or US-20100246142-$).did. or (US-20100197159-$ or US-20100144186-$ or US-20100087084-$ or US-20090311903-$ or US-20090149731-$ or US-20090088023-$ or US-20090007399-$ or US-20080248671-$ or US-20070123076-$ or US-20070059953-$ or US-20060134985-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; DERWENT	OR	ON	2021/12/24 13:15

		20060134961-$ or US-20060094281-$ or US-20060030192-$ or US-20050106918-$ or US-20040166711-$ or US-20040161958-$ or US-20040110406-$ or US-20040092150-$ or US-20040077226-$ or US-20040043664-$ or US-20020090855-$ or US-20020076962-$ or US-20020057550-$).did. or (US-9318845-$ or US-9263831-$ or US-9257804-$ or US-9184538-$ or US-8926347-$ or US-7862384-$ or US-7484991-$ or US-7465181-$ or US-7422471-$ or US-7318740-$ or US-7083459-$ or US-7066746-$ or US-6955563-$ or US-6913482-$ or US-6884099-$ or US-6811422-$ or US-6793516-$ or US-6745911-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6589066-$ or US-6579029-$ or US-6533603-$ or US-6439918-$).did. or (US-6406309-$ or US-6394842-$ or US-6371787-$ or US-6358080-$ or US-6332795-$ or US-6283781-$ or US-6045393-$ or US-6030244-$ or US-6019630-$ or US-5873737-$ or US-5857866-$ or US-5823809-$ or US-5795175-$ or US-5751135-$ or US-5727966-$ or US-5676556-$ or US-5645440-$ or US-5616038-$ or US-5613869-$ or US-5575675-$ or US-5575672-$ or US-5571030-$ or US-5538439-$ or US-5474461-$ or US-5435748-$ or US-5409393-$ or US-5350312-$).did. or (US-5217384-$ or US-5104330-$ or US-5074807-$ or US-5021003-$ or US-4886462-$ or US-4709975-$ or US-4681386-$ or US-4624472-$ or US-4589716-$ or US-4586766-$ or US-4550961-$ or US-4361375-$ or US-4181386-$ or US-4172626-$ or US-4120553-$ or US-4113337-$ or US-4093332-$ or US-4074928-$ or US-4061407-$ or US-3801757-$).did. or (US-3409858-$ or US-3243659-$ or US-3209303-$ or US-3178674-$ or US-3093773-$ or US-3020513-$ or US-2760174-$ or US-2748362-$ or US-2724094-$).did. or (WO-2014202489-$ or WO-2014168127-$ or WO-2013162590-$ or WO-2013037123-$ or WO-2009130529-$ or JP-H04133370-$ or GB-1039396-$ or EP-2644442-$ or EP-1578183-$ or EP-1017262-$ or EP-0758150-$ or EP-0568018-$ or DE-3731718-$ or DE-3123825-$ or DE-20317563-$ or DE-10222877-$).did. or (WO-2014202489-$).did.				
S405	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2021/12/24 13:15

			JPO; DERWENT; IBM_TDB			
S406	1,680	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and ("385".clas. "439".clas. H01R$.cpc. G02B6$.cpc.) not S405 not S404 and @ad<"20160115" not S403	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/24 13:15
S407	863	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) with spring and ("385".clas. "439".clas. H01R$.cpc. G02B6$.cpc.) not S405 not S404 and @ad<"20160115" not S403	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/24 13:16
S408	13	("4548455" | "6371787" | "6585537" | "6776646" | "6863556" | "7037129" | "7297013" | "7465180" | "7517241" | "7901237" | "7959455" | "8187018" | "8840419").PN. OR ("9048568").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/25 20:10
S409	57	(US-20180156988-$ or US-20170371109-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160109661-$ or US-20150212283-$ or US-20150212282-$ or US-20150111417-$ or US-20150030289-$ or US-20140219613-$ or US-20140191427-$ or US-20140133810-$ or US-20140133808-$ or US-20140056562-$ or US-20140050443-$ or US-20130089995-$ or US-20120294571-$ or US-20120237177-$ or US-20120155810-$ or US-20110286702-$ or US-20110081113-$ or US-20100220961-$ or US-20100112845-$ or US-20090275228-$ or US-20090220227-$).did. or (US-20090220200-$ or US-20060189197-$ or US-20030063862-$).did. or (US-9625658-$ or US-9599778-$ or US-9293862-$ or US-9063303-$ or US-9048568-$ or US-8747141-$ or US-8556645-$ or US-7959455-$ or US-7473124-$ or US-7465180-$ or US-7421181-$ or US-7390203-$ or US-7354292-$ or US-7350984-$ or US-7318740-$ or US-7297013-$ or US-7052186-$ or US-6672898-$ or US-6668113-$ or US-6592390-$ or US-6302596-$ or US-6276840-$ or US-5915987-$	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/12/27 17:05

		or US-5845036-$ or US-5603630-$).did. or (WO-2017123264-$).did. or (US-20120088392-$ or DE-102014109024-$).did.				
S410	6	S409 and MT near3 ferrule	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/12/27 17:06
S411	1	MT near3 ferrule same (latch$3 near3 (arm lever)) with (depress$5 press$5 flexible) and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/27 17:20
S412	2	MT near3 ferrule and (latch$3 near3 (arm lever)) with (depress$5 press$5 flexible) and ("385".clas. G02B6$.cpc.) and @ad<"20160115" not S411	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/27 17:22
S413	40	MT near3 ferrule and (latch$3 near3 (arm lever)) and ("385".clas. G02B6$.cpc.) and @ad<"20160115" not S411 not S412	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/27 17:24

12/27/2021 6:56:55 PM
C:\Users\rtavlykaev\Documents\EAST\Workspaces\17494291.wsp

Bibliographic Data

Application No: 17/494,291

Foreign Priority claimed: (●) Yes ( ) No

35 USC 119 (a-d) conditions met: [✓] Yes [ ] No [ ] Met After Allowance

Verified and Acknowledged: /ROBERT TAVLYKAEV/ [ ]

Examiner's Signature | Initials

Title: NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/05/2021	385	2896	S03263
RULE			

APPLICANTS

Senko Advanced Components Inc., Marlborough, MA,

INVENTORS

Kazuyoshi TAKANO, Tokyo, JAPAN

Jeffrey GNIADEK, Oxford, ME, UNITED STATES

CONTINUING DATA

This application is a CON of 16695901 11/26/2019 PAT 11152748

16695901 is a CON of 16213244 12/07/2018 PAT 10520690

16213244 is a CON of 15044838 02/16/2016 PAT 10158194

15044838 is a CIP of 14996865 01/15/2016 PAT 9595786 *

(*) Data provided by applicant is not consistent with PTO record

FOREIGN APPLICATIONS

PCT/US16/13629 01/15/2016

TAIWAN TW105101374 01/18/2016

IF REQUIRED, FOREIGN LICENSE GRANTED**

10/18/2021

**** SMALL ENTITY ****

STATE OR COUNTRY

JAPAN

ADDRESS

Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

UNITED STATES

FILING FEE RECEIVED

$3,100

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03263

CONFIRMATION NO. 3410

152878
Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

PUBLICATION NOTICE

OC000000131414552

Title:NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

Publication No.US-2022-0029356-A1
Publication Date:01/27/2022

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently http://www.uspto.gov/patft/.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently https://portal.uspto.gov/pair/PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

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Office of Data Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
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NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	17/494,291
Filing Date	October 5, 2021
First Named Inventor	Kazuyoshi TAKANO
Title	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
Art Unit	2896
Examiner Name	Robert Fautovich Tavlykaev
Attorney Docket Number	S03263

SIGNATURE of Applicant or Patent Practitioner

Signature	/Jonathan Pollmann/	Date (Optional)	2022-03-29
Name	Jonathan Pollmann	Registration Number	71,702
Title (if Applicant is a juristic entity)			
Applicant Name (if Applicant is a juristic entity)			

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ *Total of _____ forms are submitted.

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Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 152878

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Senko Advanced Components, Inc.

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature		Date (Optional)	
Name	Junichi HASEGAWA		
Title	Executive Vice President		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
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Electronic Acknowledgement Receipt

EFS ID:	45346514
Application Number:	17494291
International Application Number:	
Confirmation Number:	3410
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Customer Number:	152878
Filer:	Jonathan G. Pollmann/Meagan Fitzpatrick
Filer Authorized By:	Jonathan G. Pollmann
Attorney Docket Number:	S03263
Receipt Date:	29-MAR-2022
Filing Date:	05-OCT-2021
Time Stamp:	16:37:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA.PDF	298363 f319c9dac6000138f29e58fd79aeeb4a566c78b4	no	3
Warnings:					

Information:	
Total Files Size (in bytes):	298363

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/494,291	Filing Date 10/05/2021	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $240 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	03/30/2022	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 17	Minus	** 22	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 1	Minus	*** 3	= 0		x $240 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/MELINDA L OLIVER/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

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Docket Number (Optional): S03263

In re Application of: Kazuyoshi TAKANO

Application No.: 17/494,291

Filed: October 5, 2021

For: Narrow Width Adapters and Connectors with Pull Tab Release

The applicant, Senko Advanced Components, Inc., owner of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending **reference** Application Number 17/342,220, filed, June 8, 2021, as the term of any patent granted on said **reference** application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending **reference** application. The applicant hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent granted on the **reference** application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

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Check either box 1 or 2 below, if appropriate.

1. ☐ The undersigned is the applicant. If the applicant is an assignee, the undersigned is authorized to act on behalf of the assignee.

I hereby acknowledge that any willful false statements made are punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

2. ☑ The undersigned is an attorney or agent of record. Reg. No. 71,702

/Jonathan Pollmann/	2022-03-30
Signature	Date
Jonathan Pollmann	
Typed or printed name	
Partner	3143457056
Title	Telephone Number

☑ Terminal disclaimer fee under 37 CFR 1.20(d) is included.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.321. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	17494291
Filing Date:	05-Oct-2021
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Filer:	Jonathan G. Pollmann/Meagan Fitzpatrick
Attorney Docket Number:	S03263

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
STATUTORY OR TERMINAL DISCLAIMER	2814	1	170	170
		Total in USD ($)		**170**

Electronic Acknowledgement Receipt

EFS ID:	45357522
Application Number:	17494291
International Application Number:	
Confirmation Number:	3410
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Customer Number:	152878
Filer:	Jonathan G. Pollmann/Meagan Fitzpatrick
Filer Authorized By:	Jonathan G. Pollmann
Attorney Docket Number:	S03263
Receipt Date:	30-MAR-2022
Filing Date:	05-OCT-2021
Time Stamp:	16:41:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$170
RAM confirmation Number	E20223TG42113078
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Request for Reconsideration-After Non-Final Rejection	Amendment.pdf	126659 7d31633128bd7650223b9b5f9dccd6fa2ffa767b	no	7
Warnings:					
Information:					
2	Terminal Disclaimer Filed	TerminalDisclaimer.PDF	252567 c6454165f2575026136bcdd41ed60a9a21442233	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	38379 46fd535f42015e9c273bde40142481b38d5909bc	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	417605		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Kazuyoshi TAKANO Art Unit: 2896
Serial No: 17/494,291
Filed: October 5, 2021
Confirmation No: 3410
For: Narrow Width Adapters and Connectors with Pull Tab Release
Examiner: Robert Fuatovich Tavlykaev

Amendment A

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450

COMMISSIONER:

In response to the Office action dated December 30, 2021, please enter the following amendments and consider the following remarks.

Amendments to the claims begin on page 7.

Applicant's Remarks begin on page 6 of this paper.

Amendments to the Claims

This listing of claims will replace all prior versions of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) An optical fiber connector configured for mating with a receptacle, the optical fiber connector comprising:

an MT ferrule configured to hold a plurality of optical fibers;

a connector housing having a front end portion and a rear end portion spaced apart along a longitudinal axis, the connector housing configured to hold the MT ferrule such that the MT ferrule is exposed through the front end portion for making an optical connection;

a depressible latching arm connected to the connector housing for latching with the receptacle when the optical fiber connector is mated with the receptacle to releasably retain the optical fiber connector in the receptacle; and

a remote release connected to the connector housing for movement relative to the connector housing along the longitudinal axis, the remote release being configured to be pulled rearward along the longitudinal axis to depress the depressible latching arm for releasing the optical fiber connector from the receptacle;

wherein the connector housing has a generally rectangular perimeter including opposite first and second walls and opposite third and fourth walls, the depressible latching arm being located on an exterior of the first wall;

wherein the first wall of the connector housing defines a groove, the remote release being slidably received in the groove;

wherein the remote release comprises a lower portion and a narrower portion above the lower portion, the lower portion being wider than the narrower portion;

wherein the groove includes an inner portion and an outer portion, the inner portion being wider than the outer portion, the inner portion of the groove being configured to slidably receive the lower portion of the latch release and the outer portion of the groove being configured to slidably receive the narrower portion of the latch release such that the first wall releasably retains the latch release in the groove.

2. (Cancelled).

3. (Currently amended) The optical fiber connector as set forth in claim [[2]] 1, wherein the depressible latching arm has a front end portion and a rear end portion spaced apart along the longitudinal axis, the depressible latching arm extending transversely outward away from the first wall as the depressible latching arm extends longitudinally from the front end portion to the rear end portion.

4. (Original) The optical fiber connector as set forth in claim 3, wherein the optical fiber connector is free of depressible latching arms on an exterior of any of the second, third, and fourth walls.

5-7. (Cancelled).

8. (Original) The optical fiber connector as set forth in claim 1, wherein the optical fiber connector is configured so that upon release of the remote release after being pulled rearward along the longitudinal axis to depress the depressible latching arm, the depressible latching arm resiliently returns toward an un-depressed position.

9. (Original) The optical fiber connector as set forth in claim 1, wherein the depressible latching arm is a first depressible latching arm, the optical fiber connector further comprising a second depressible latching arm spaced apart from the first depressible latching arm.

10. (Original) The optical fiber connector as set forth in claim 9, wherein the remote release is further configured to depress the second depressible latching arm when the remote release is pulled rearward along the longitudinal axis.

11. (Original) The optical fiber connector as set forth in claim 9, wherein the remote release comprises a first edge for engaging the first depressible latching arm and a second edge for engaging the second depressible latching arm, the first and second edges being spaced apart from one another.

12. (Original) The optical fiber connector as set forth in claim 11, wherein the remote release further comprises an elongate section between the first edge and the second edge.

13. (Original) The optical fiber connector as set forth in claim 1, wherein the remote release comprises a front section and wherein the optical fiber connector is configured such that the front section is yieldably biased forward along the longitudinal axis.

14. (Original) The optical fiber connector as set forth in claim 13, further comprising a resilient biasing member engaging the front section of the remote release to yieldably bias the remote release forward.

15. (Original) The optical fiber connector as set forth in claim 14, wherein the depressible latching arm is configured to engage the front section of the remote release at a first point of contact and the resilient biasing member is configured to engage the front section of the remote release at a second point of contact, the second point of contact being rearwardly spaced apart from the first point of contact along the longitudinal axis.

16. (Original) The optical fiber connector as set forth in claim 1, wherein the MT ferrule is configured to receive a plurality of fibers such that the fibers are spaced apart in a row that extends parallel to a fiber alignment axis, the MT ferrule comprising first and second guide pin openings spaced apart along the fiber alignment axis.

17. (Original) The optical fiber connector as set forth in claim 16, wherein the optical fiber connector has an outer cross-sectional dimension along the fiber alignment axis and wherein the outer cross-sectional dimension is less than an outer cross-sectional dimension of a standard MPO connector along a fiber alignment axis of the standard MPO connector.

18. (Original) The optical fiber connector as set forth in claim 1, wherein the connector housing is configured to enable a polarity of the optical fiber connector to be selectively reversed.

19. (Original) An optical connection system comprising the optical fiber connector as set forth in claim 1 and a receptacle for mating with the optical fiber connector.

20. (Original) The optical connection system as set forth in claim 19, wherein the receptacle comprises a rectangular perimeter wall.

21. (Original) The optical connection system as set forth in claim 20, wherein the receptacle includes a recess, the depressible latching arm being configured to latch with the recess when the optical fiber connector and the receptacle are mated.

22. (Cancelled).

REMARKS

By this amendment, claims 1, 3, and 5 are amended, and claims 2, 6-7, and 22 are cancelled. No new matter is added by this amendment. Claims 1, 3-5, and 8-21 are pending in the application.

Allowable Subject Matter

Applicant gratefully acknowledges the indication that claim 7 recites allowable subject matter. As explained more fully below, this response accepts the allowable subject matter of claim 7.

Priority and Election

The Office indicates that the present Application contains two distinct Species. Species A is illustrated in FIGS. 5-8 and 12 and covers a fiber optic connector wherein the latch is pressed down for disengagement. Species B is illustrated in FIGS. 13-15 and covers a fiber optic connector where the latch is lifted for disengagement by using a ramp area of a pull tab. The Office notes that the original claims recite "a depressible latching arm." Applicant submits that "depressible" means that the latch arm is pressed down (Species A), not that it is lifted up (Species B). Hence, Applicant submits that, to the extent there is an election by original presentation, it is of Species A, not Species B.

Claim Objection

Claim 7 has been cancelled, and claim 1 has been amended to rewrite claim 7 in independent form with minor changes for clarity. In the amendments to claim 1, Applicant has corrected the typographical error noted in item 5 of the Office action. Accordingly, withdrawal of the objection is respectfully requested.

35 U.S.C. § 103

Claims 1-6 and 8-22 stand rejected under 35 U.S.C. § 103 as allegedly being rendered obvious by Crain (US 8,556,645) in view of Norris (US 2013/0022317) or Watanabe (US 2017/0351037) in view of Chie (US 9,048,568).

Without conceding the propriety of the rejections, Applicant has amended claim 1 to include the features of claim 7 (and intervening claims 2, 5 and 6), which was indicated to be allowable. The language of claims 6 and 7 is edited slightly for clarity. In particular, the term "upper portion" of the latch release is replaced by "narrower portion of the latch release above the lower portion." Applicant submits that this change has no bearing on the finding of patentability. None of the cited references have been shown to disclose or suggest "the groove includes an inner portion and an outer portion, the inner portion being wider than the outer portion, the inner portion of the groove being configured to slidably receive the lower portion of the latch release and the outer portion of the groove being configured to slidably receive the narrower portion of the latch release (above the lower portion) such that the first wall releasably retains the latch release in the groove."

For at least these reasons, claim 1 as amended is submitted to be nonobvious and patentable over the cited references. Withdrawal of the rejection of claim 1 is therefore respectfully requested.

Claims 3-5, and 8-21 depend from claim 1 and are submitted to be nonobvious and patentable over the cited references for at least the same reasons. Withdrawal of the rejections of claims 3-5, and 8-21 is therefore likewise respectfully requested.

Claim 22 is hereby cancelled in order to expedite prosecution. Withdrawal of the rejection of claim 22 is therefore respectfully requested.

Double Patenting

In response to the statutory double patenting rejection, Applicant has cancelled claim 22 of the present application and has entered a preliminary amendment US 17/342,220, cancelling claims 1-22. Hence, the statutory double patenting issue as between the present application and US 17/342,220 is now moot. Withdrawal of the rejection and allowance of the pending claims are therefore respectfully requested.

In response to the non-statutory double patenting rejection, Applicant submits herewith a terminal disclaimer to US 17/342,220. Withdrawal of the non-statutory double patenting rejection is therefore likewise respectfully requested.

Conclusion

Applicant believes that application is in condition for allowance. If any remaining issue can be addressed by Examiner's amendment, Applicant would invite Examiner to propose an Examiner's amendment by telephone call to the undersigned. Should any other fee be required, the Commissioner is hereby authorized to charge the necessary fee to Deposit Account No. 19-4409.

Respectfully submitted,

/Jonathan Pollmann/

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(314) 863-0800

JGP/dss

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03263

CONFIRMATION NO. 3410

POA ACCEPTANCE LETTER

152878
Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

OC000000132826564

Date Mailed: 03/31/2022

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 03/19/2022.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/zabraha/

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination	
* 17/494,291 *	17/494,291	TAKANO et al.	
	Examiner	**Art Unit**	
	TAVLYKAEV, ROBERT FUATOVICH	2896	

Document Code - DISQ	**Internal Document - DO NOT MAIL**

TERMINAL DISCLAIMER	☑ APPROVED	☐ DISAPPROVED
Date Filed: 30 March 2022	**This patent is subject to a Terminal Disclaimer**	

Approved/Disapproved by:

/KIMBERLY R WHITE/

Technology Center: OPLC

Telephone: (571)272-6179

_____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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NOTICE OF ALLOWANCE AND FEE(S) DUE

152878 7590 04/12/2022

Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

EXAMINER
TAVLYKAEV, ROBERT FUATOVICH

ART UNIT	PAPER NUMBER
2896	

DATE MAILED: 04/12/2022

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03623USCON4	3410

TITLE OF INVENTION: NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$600	$0.00	$0.00	$600	07/12/2022

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

152878 7590 04/12/2022
Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03623USCON4	3410

TITLE OF INVENTION: NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$600	$0.00	$0.00	$600	07/12/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
TAVLYKAEV, ROBERT FUATOVICH	2896	385-076000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03623USCON4	3410

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EXAMINER	
TAVLYKAEV, ROBERT FUATOVICH	
ART UNIT	PAPER NUMBER
2896	

DATE MAILED: 04/12/2022

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 17/494,291	Applicant(s) TAKANO et al.	
	Examiner ROBERT TAVLYKAEV	Art Unit 2896	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to 3/30/22.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1,3-4 and 8-21 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information , please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some* c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. 20220331-A.
5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/ROBERT TAVLYKAEV/
Primary Examiner, Art Unit 2896

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimer filed 3/30/22 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of the full term of any patent granted on pending reference Application Number 17/342,220 has been reviewed and accepted. The terminal disclaimer has obviated the double-patenting rejections.

Examiner's Amendment

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney Jonathan Pollmann (Reg. No. 71,702) on 4/1/22.

The application has been amended as follows:

In the claims:

1. (Currently amended) An optical fiber connector configured for mating with a receptacle, the optical fiber connector comprising:

an MT ferrule configured to hold a plurality of optical fibers;

a connector housing having a front end portion and a rear end portion spaced apart along a longitudinal axis, the connector housing configured to hold the MT ferrule such that the MT ferrule is exposed through the front end portion for making an optical connection;

a depressible latching arm connected to the connector housing for latching with the receptacle when the optical fiber connector is mated with the receptacle to releasably retain the optical fiber connector in the receptacle; and

a remote release connected to the connector housing for movement relative to the connector housing along the longitudinal axis, the remote release being configured to be pulled rearward along the longitudinal axis to depress the depressible latching arm for releasing the optical fiber connector from the receptacle;

wherein the connector housing has a generally rectangular perimeter including opposite first and second walls and opposite third and fourth walls, the depressible latching arm being located on an exterior of the first wall;

wherein the first wall of the connector housing defines a groove, the remote release being slidably received in the groove;

wherein the remote release comprises a lower portion and a narrower portion above the lower portion, the lower portion being wider than the narrower portion; and

wherein the groove includes an inner portion and an outer portion, the inner portion being wider than the outer portion, the inner portion of the groove being configured to slidably receive the lower portion of the latch release and the outer portion of the groove being configured to slidably receive the narrower portion of the latch release such that the first wall releasably retains the latch release in the groove.

13. (Currently amended) The optical fiber connector as set forth in claim 1, wherein the remote release comprises a front section and wherein the optical fiber connector is configured such that the front section is yieldably biased ~~forward~~ along the longitudinal axis toward the front end portion of the connector housing.

14. (Currently amended) The optical fiber connector as set forth in claim 13, further comprising a resilient biasing member engaging the front section of the remote release to yieldably bias the remote release ~~forward~~ toward the front end portion of the connector housing.

15. (Currently amended) The optical fiber connector as set forth in claim 14, wherein the depressible latching arm is configured to engage the front section of the remote release at a first point of contact and the resilient biasing member is configured to engage the front section of the remote release at a second point of contact, the second point of contact being ~~rearwardly~~ spaced apart from the first point of contact along the longitudinal axis toward the rear end portion of the connector housing.

Reasons for Allowance

3. Claim 1 is allowed for the following reasons:

The instant application is deemed to be directed to a non-obvious improvement over an optical fiber connector of the Crain – Norris combination and over an optical fiber connector of the Watanabe – Chien combination.

Claim 1 is allowed over the Crain – Norris combination because the prior art of record, taken alone or in combination, fails to teach expressly, render obvious, and provide a motivation for a person of ordinary skill in the art to configure/modify the groove of first wall 26,70 in Crain to have an inner portion and an outer portion meeting the recited limitations and, in particular, have the outer portion of the groove configured to slidably receive the upper portion of the latch release such that the first wall *releasably* retains the latch release in the groove. On the contrary, the latch release 58 is *permanently* retained in the groove 70 of the first wall 26,70, as detailed in Fig. 6 of Cain.

Claim 1 is allowed over the Watanabe – Chien combination, because the latter neither teaches expressly nor renders obvious that the contemplated connector can comprise a groove formed in the first wall of the connector housing.

Claims 3, 4, and 8 – 21 are allowed by virtue of dependency on claim 1.

As a relevant comment, it is also noted that the allowed claims are drawn to Species A (shown in Fig. 5 of the instant application) which has also been examined in parent application No. 14/996,865. The claims of US Patent 9,595,786 issued on 14/996,865 were compared to the claims of the instant application and no double-patenting issues were noted.

Conclusion

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT TAVLYKAEV whose telephone number is (571)270-5634. The examiner can normally be reached on 10:00 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Kraig can be reached on (571)272-8660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TAVLYKAEV/
Primary Examiner, Art Unit 2896

Examiner-Initiated Interview Summary	**Application No.** 17/494,291	**Applicant(s)** TAKANO et al.		
	Examiner ROBERT TAVLYKAEV	**Art Unit** 2896	**AIA (First Inventor to File) Status** Yes	**Page** 1 of 1

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
ROBERT TAVLYKAEV	Primary Examiner	Telephonic
JONATHAN POLLMANN (Reg. No. 71,70)	Attorney of Record	

Date of Interview: 01 April 2022

Issues Discussed:

Proposed Amendment(s)

The Examiner informed Mr. Pollmann that the 3/30/22 claim amendment had overcome the applied prior art of record and an updated prior art search had not yielded any more prior art that could be applied to the amended claims. The Examiner proposed an additional claim amendment to correct minor deficiencies remaining in the claims. Mr. Pollmann authorized the inclusion of the proposed claim amendment as an examiner's amendment in this Office Action.

/ROBERT TAVLYKAEV/ Primary Examiner, Art Unit 2896	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant recordation instructions: It is not necessary for applicant to provide a separate record of the substance of interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	**Art Unit**
	ROBERT TAVLYKAEV	2896

CPC						
Symbol					**Type**	**Version**
G02B	/	6	/	3879	F	2013-01-01
G02B	/	6	/	3893	A	2013-01-01
H01R	/	13	/	6335	A	2013-01-01

CPC Combination Sets								
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	17	
/ROBERT TAVLYKAEV/ Primary Examiner, Art Unit 2896	31 March 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office — Part of Paper No.: 20220331-A

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	**Art Unit**
	ROBERT TAVLYKAEV	2896

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G02B	/	6	/	38

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner) (Date)	**Total Claims Allowed:** 17	
/ROBERT TAVLYKAEV/ Primary Examiner, Art Unit 2896 (Primary Examiner) 31 March 2022 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 5

U.S. Patent and Trademark Office Part of Paper No.: 20220331-A

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	**Art Unit**
	ROBERT TAVLYKAEV	2896

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	14												
2	3	11	15												
3	4	12	16												
4	8	13	17												
5	9	14	18												
6	10	15	19												
7	11	16	20												
8	12	17	21												
9	13														

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	17	
/ROBERT TAVLYKAEV/ Primary Examiner, Art Unit 2896	31 March 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	5

U.S. Patent and Trademark Office Part of Paper No.: 20220331-A

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	Art Unit
	ROBERT TAVLYKAEV	2896

CPC - Searched*		
Symbol	Date	Examiner
G02B6/3825,3879,3885,3893; H01R13/627,6271,6272,6275,62933	03/31/2022	RT

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
385	76,77,88,92	03/31/2022	RT
439	133,304,345,346,350,352,353,354,357,358,370	03/31/2022	RT

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
prior art search	03/31/2022	RT
inventor name search	03/31/2022	RT
clm search	03/31/2022	RT

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
385	76,77,88,92	03/31/2022	RT
439	133,304,345,346,350,352,353,354,357,358,370	03/31/2022	RT

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	17/494,291	TAKANO et al.
	Examiner	Art Unit
	ROBERT TAVLYKAEV	2896

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	12/23/2021	03/31/2022							
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	2	✓	-							
2	3	✓	=							
3	4	✓	=							
	5	✓	-							
	6	✓	-							
	7	✓	-							
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5	9	✓	=							
6	10	✓	=							
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8	12	✓	=							
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11	15	✓	=							
12	16	✓	=							
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14	18	✓	=							
15	19	✓	=							
16	20	✓	=							
17	21	✓	=							
	22	✓	-							

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	93	(US-20210173155-$ or US-20210149120-$ or US-20210141168-$ or US-20210124131-$ or US-20210109292-$ or US-20210088733-$ or US-20210080659-$ or US-20210063649-$ or US-20210026083-$ or US-20200379192-$ or US-20200278503-$ or US-20200257063-$ or US-20190339464-$ or US-20190324218-$ or US-20190285808-$ or US-20190285807-$ or US-20190243072-$ or US-20180341069-$ or US-20180335577-$).did. or (US-11029470-$ or US-11002923-$ or US-10989884-$ or US-10948664-$ or US-10921531-$ or US-10921530-$ or US-10871619-$ or US-10866369-$ or US-10838152-$ or US-10823915-$ or US-10725248-$ or US-10641972-$ or US-10620384-$ or US-10520688-$ or US-10416394-$ or US-10359583-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2020264217-$ or WO-2020252355-$ or WO-2020232452-$ or WO-2020219722-$ or WO-2020198755-$ or WO-2020198501-$ or WO-2020181106-$ or WO-2020163683-$ or WO-2020142541-$ or WO-2020118176-$ or WO-2020097621-$ or WO-2020081704-$ or WO-2020055440-$ or WO-2020036992-$ or WO-2020033687-$ or WO-2020010314-$ or WO-2020006356-$ or WO-2019222189-$ or WO-2019183070-$ or WO-2019014659-$ or WO-2018204382-$ or WO-2018111617-$ or GB-2575158-$ or EP-3427346-$ or EP-3408700-$ or EP-3379311-$).did. or (CN-112088327-$ or CN-111258002-$ or CN-111239928-$ or CN-111239919-$ or CN-111158089-$ or CN-111103659-$ or CN-111033339-$ or CN-110579843-$ or CN-110441867-$ or CN-110389412-$ or CN-109752803-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or CA-3095881-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:13
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		20200218015-$ or US-20200183097-$ or US-20200183093-$ or US-20200174199-$ or US-20200166716-$ or US-20200150353-$ or US-20200142133-$ or US-20200132944-$ or US-20200116957-$ or US-20200116951-$ or US-20200110228-$ or US-20200081201-$ or US-20200081200-$ or US-20200081195-$).did. or (US-20200064564-$ or US-20200049904-$ or US-20200049903-$ or US-20200012050-$ or US-20200003963-$ or US-20190377139-$ or US-20190353855-$ or US-20190353852-$ or US-20190346634-$ or US-20190339475-$ or US-20190324215-$ or US-20190310432-$ or US-20190302374-$ or US-20190285806-$ or US-20190271816-$ or US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190064447-$ or US-20190056557-$ or US-20180364422-$ or US-20180356600-$).did. or (US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10877226-$ or US-10712512-$ or US-10712511-$ or US-10678000-$ or US-10444444-$ or US-10409009-$ or US-10295753-$ or US-10197740-$ or US-10158194-$).did. or (WO-2020172661-$ or WO-2020086184-$ or WO-2020056002-$ or WO-2020055439-$ or WO-2019204527-$ or WO-2019191522-$ or WO-2019190616-$ or WO-2019177762-$ or WO-2019038641-$ or WO-2018218153-$ or WO-2018213514-$ or WO-2018140981-$ or WO-2018140873-$ or GB-2574320-$ or DE-102019206527-$ or CN-110658589-$ or CN-110426790-$ or CN-110031939-$ or CN-108701937-$ or CN-108603987-$ or CA-3069706-$ or CA-3049566-$).did.				
L3	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:13
L4	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:13

L5	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:13
L6	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2022/03/31 18:13
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L8	1	((Kazuyoshi) near2 (Takano)).INV. not L7 not L6 not L5 not L4 not L3 not L2 not L1 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:13
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L10	16	(US-20210041643-$ or US-20200393629-$ or US-20200333537-$ or US-20200142141-$ or US-20200057206-$ or US-20190341729-$ or US-20170031108-$ or US-20100329625-$ or US-20090285540-$).did. or (US-10107972-$).did. or (KR-20140143351-$ or CN-110308524-$ or AU-2010201115-$ or AU-2005301961-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:14
L11	356	((Kazuyoshi) near2 (Takano)).INV. not L7 not L6 not L5 not L4 not L3 not L2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:14
L12	15	(US-20200096707-$ or US-20190265418-$ or US-20100284662-$).did. or (US-9829654-$ or US-7471869-$ or US-10539750-$ or US-10488599-$ or US-10396512-$ or US-10330869-$ or US-10078187-$).did. or (MX-2014004053-$ or EP-3084232-$ or EP-1875287-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:14

L13	32	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:14
L14	28	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L15	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L16	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L17	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L18	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2022/03/31 18:14
L19	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2022/03/31 18:14

L20	396	((Kazuyoshi) near2 (Takano)).INV. not L19 not L18 not L17 not L16 not L15 not L14 not L13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:14
L21	15	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2022/03/31 18:14
L22	25	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L23	452	((Kazuyoshi) near2 (Takano)).INV. not L19 not L18 not L17 not L16 not L15	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:14
L24	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L25	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14

L26	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2022/03/31 18:14
L27	19	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2022/03/31 18:14
L28	37	((Jeffrey) near2 (Gniadek)).INV. and connector not L27 not L26 not L25 not L23 not L24 not L22 not L20 not L21 not L11 not L12 not L10 and @ad<"20160115" not 9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:14
L29	87	(US-20170237201-$ or US-20160196454-$ or US-20130244472-$ or US-20100273344-$ or US-20100267271-$ or US-20060194468-$ or US-20030211770-$).did. or (US-8979395-$ or US-8961217-$ or US-8956058-$ or US-8917966-$ or US-8876404-$ or US-8870471-$ or US-8845356-$ or US-8845206-$ or US-8770864-$ or US-8714839-$ or US-8698349-$ or US-8672694-$ or US-8641442-$ or US-8632352-$ or US-8628345-$ or US-8616910-$ or US-8573997-$ or US-8556646-$ or US-8408932-$ or US-8357001-$ or US-8308498-$ or US-8287191-$ or US-8262403-$ or US-8195017-$ or US-8177575-$ or US-8167638-$).did. or (US-8152554-$ or US-8100588-$ or US-8011942-$ or US-7901250-$ or US-7892014-$ or US-7867009-$ or US-7850476-$ or US-7798727-$ or US-7766685-$ or US-7753710-$ or US-7704091-$ or US-7703987-$ or US-7666023-$ or US-7632125-$ or US-7628637-$ or US-7438584-$ or US-7422464-$ or US-7371086-$ or US-7361047-$ or US-7347634-$ or US-7297013-$ or US-7281937-$ or US-7255489-$ or US-7189013-$ or US-7090410-$ or US-	US-PGPUB; USPAT; DERWENT	OR	ON	2022/03/31 18:14

		6910911-$ or US-6860650-$).did. or (US-6835085-$ or US-6729897-$ or US-6688781-$ or US-6666704-$ or US-6659789-$ or US-6644868-$ or US-6517373-$ or US-6200041-$).did. or (WO-2013177234-$ or US-5382176-$ or US-3861770-$ or US-20160126668-$ or US-20160004022-$ or US-20120282796-$ or US-20100279547-$ or US-20090318004-$ or US-20080112673-$ or US-20060189197-$ or US-20060089049-$ or US-20060089039-$ or US-20040033027-$ or JP-3161161-$ or GB-2261742-$ or EP-729048-$ or EP-2953212-$ or DE-4205960-$).did.				
L48	386	(US-20160161681-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160111819-$ or US-20160109661-$ or US-20150357758-$ or US-20150338588-$ or US-20150318641-$ or US-20150288102-$ or US-20150280362-$ or US-20150244109-$ or US-20150236449-$ or US-20150212283-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162704-$ or US-20150147033-$ or US-20150093083-$ or US-20150044898-$ or US-20150030289-$ or US-20150017828-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322948-$ or US-20140286613-$ or US-20140273594-$ or US-20140273585-$ or US-20140235091-$ or US-20140213092-$ or US-20140193993-$ or US-20140179147-$ or US-20140148040-$ or US-20140148032-$ or US-20140127926-$ or US-20140062216-$ or US-20140057474-$ or US-20140029900-$ or US-20130303014-$ or US-20130301993-$ or US-20130288510-$ or US-20130279857-$ or US-20130251314-$ or US-20130244459-$ or US-20130210261-$ or US-20130196530-$ or US-20130183846-$ or US-20130156379-$ or US-20130102182-$ or US-20130102163-$ or US-20130094811-$).did. or (US-20130051738-$ or US-20130040486-$ or US-20130005173-$ or US-20130004131-$ or US-20120329304-$ or US-20120295462-$ or US-20120282796-$ or US-20120251058-$ or US-20120251054-$ or US-20120115348-$ or US-20120088392-$ or US-20120052712-$ or US-20120045922-$ or US-20110318949-$ or US-20110312207-$ or US-20110306229-$ or US-20110305422-$ or US-20110294328-$ or US-20110293221-$ or US-20110287649-$ or US-20110286702-$ or US-20110268390-$ or US-20110263151-$ or US-20110263150-$ or US-20110263149-$ or US-20110244704-$ or US-20110237113-$).did. or	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2022/03/31 18:15

(US-20110201224-$ or US-20110183541-$ or US-20110176773-$ or US-20110070756-$ or US-20110059642-$ or US-20110021057-$ or US-20100328852-$ or US-20100284657-$ or US-20100255708-$ or US-20100220961-$ or US-20100178789-$ or US-20100144187-$ or US-20100144186-$ or US-20100136809-$ or US-20100112845-$ or US-20100105238-$ or US-20100087084-$ or US-20090318007-$ or US-20090318004-$ or US-20090311903-$ or US-20090291584-$ or US-20090239406-$ or US-20090239405-$ or US-20090148106-$ or US-20090117772-$ or US-20090075513-$ or US-20090047818-$).did. or (US-20080311781-$ or US-20080268694-$ or US-20080194135-$ or US-20080194133-$ or US-20080090426-$ or US-20080076290-$ or US-20080057771-$ or US-20070178741-$ or US-20070173099-$ or US-20070087614-$ or US-20070049076-$ or US-20070025665-$ or US-20060189197-$ or US-20060089039-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060019525-$ or US-20060013539-$ or US-20050259924-$ or US-20050117855-$ or US-20050095899-$ or US-20030228777-$ or US-20030169975-$ or US-20030109164-$ or US-20030096527-$ or US-20030031431-$).did. or (US-20030008546-$ or US-20020182922-$ or US-20020090855-$ or US-20020019161-$ or US-20020006253-$).did. or (US-9025343-$ or US-8986036-$ or US-8985867-$ or US-8647135-$ or US-8616909-$ or US-8608492-$ or US-8562372-$ or US-8545252-$ or US-8500470-$ or US-8403695-$ or US-8257106-$ or US-8241053-$ or US-8206164-$ or US-8172599-$ or US-8083535-$ or US-8052458-$ or US-8043106-$ or US-8033853-$ or US-7972164-$ or US-7896665-$ or US-7862352-$ or US-7824113-$ or US-7811115-$ or US-7806599-$ or US-7798838-$ or US-7744398-$).did. or (US-7708474-$ or US-7695302-$ or US-7690848-$ or US-7658635-$ or US-7645156-$ or US-7621770-$ or US-7578692-$ or US-7549886-$ or US-7542732-$ or US-7540756-$ or US-7540755-$ or US-7517241-$ or US-7503793-$ or US-7484991-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7455545-$ or US-7442060-$ or US-7440670-$ or US-7422481-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7402070-$ or US-7367842-$ or US-7361045-$).did. or (US-7354292-$ or US-7354291-$ or US-7322845-$ or US-7318740-$ or US-7311544-$ or US-7309250-$ or US-7267493-$ or US-7255587-$ or US-

7182524-$ or US-7179110-$ or US-7168972-$ or US-7144266-$ or US-7090509-$ or US-7066759-$ or US-7025636-$ or US-7004780-$ or US-6986686-$ or US-6943661-$ or US-6916196-$ or US-6866535-$ or US-6851867-$ or US-6835086-$ or US-6811422-$ or US-6793516-$ or US-6692306-$ or US-6692284-$ or US-6672898-$).did. or (US-6666698-$ or US-6595792-$ or US-6575759-$ or US-6570768-$ or US-6461176-$ or US-6413104-$ or US-6409392-$ or US-6394850-$ or US-6394842-$ or US-6352444-$ or US-6343948-$ or US-6341972-$ or US-6332798-$ or US-6332784-$ or US-6309247-$ or US-6299362-$ or US-6298190-$ or US-6276839-$ or US-6250817-$ or US-6234823-$ or US-6234683-$ or US-6196858-$ or US-6179627-$ or US-6179477-$ or US-6176729-$ or US-6146181-$ or US-6086263-$).did. or (US-6085006-$ or US-6080002-$ or US-6077101-$ or US-5971789-$ or US-5921799-$ or US-5879194-$ or US-5845036-$ or US-5829999-$ or US-5795175-$ or US-5773332-$ or US-5675682-$ or US-5641298-$ or US-5639254-$ or US-5609498-$ or US-5603631-$ or US-5586903-$ or US-5570445-$ or US-5564939-$ or US-5561727-$ or US-5556295-$ or US-5427543-$ or US-5382176-$ or US-5363460-$ or US-5362249-$ or US-5352132-$ or US-5338218-$ or US-5336103-$).did. or (US-5317485-$ or US-5314345-$ or US-5308260-$ or US-5305380-$ or US-5217384-$ or US-5174293-$ or US-5146525-$ or US-5106312-$ or US-5069634-$ or US-5011422-$ or US-4969838-$ or US-4953940-$ or US-4946248-$ or US-4925396-$ or US-4911646-$ or US-4873614-$ or US-4865557-$ or US-4862500-$ or US-4846708-$ or US-4787860-$ or US-4750898-$ or US-4712861-$ or US-4709975-$ or US-4702537-$ or US-4687271-$ or US-4687270-$ or US-4669797-$).did. or (US-4639061-$ or US-4615575-$ or US-4603931-$ or US-4586766-$ or US-4579410-$ or US-4544216-$ or US-4530556-$ or US-4469386-$ or US-4462656-$ or US-4448470-$ or US-4431244-$ or US-4407556-$ or US-4319733-$ or US-4130330-$ or US-4130329-$ or US-4120553-$ or US-4113179-$ or US-4108522-$ or US-4074928-$ or US-4074341-$ or US-4039237-$ or US-3982803-$ or US-3954321-$ or US-3919573-$ or US-3861770-$ or US-3843224-$ or US-3829821-$).did. or (US-3825882-$ or US-3824552-$ or US-3755772-$ or US-3699498-$ or US-3665372-$ or US-3643205-$ or US-3573702-$).did. or (US-3525069-$ or US-3500130-$ or US-3444329-$ or US-3417365-$ or US-3409859-$ or

		US-3409858-$ or US-3337836-$ or US-3287688-$ or US-3281758-$ or US-3154361-$ or US-3134945-$ or US-3111354-$ or US-3020513-$ or US-3002170-$ or US-2984815-$ or US-2748362-$ or US-2735993-$ or US-2438515-$ or US-2085399-$ or US-1998129-$ or US-1955146-$ or US-1906929-$ or US-1783342-$ or US-1495778-$).did. or (DE-3731718-$ or DE-3725261-$).did. or (JP-03084880-$).did. or (WO-2010125548-$ or WO-2010097603-$ or WO-2010038283-$ or WO-2006053717-$ or WO-0127660-$ or US-5011422-$ or US-20150162709-$ or US-20150093083-$ or US-20140219616-$ or US-20140193993-$ or US-20140148040-$ or US-20130252453-$ or US-20120251054-$ or US-20120190230-$ or US-20120088392-$ or US-20110305422-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20030108300-$ or US-20020076968-$ or DE-202011052551-$ or DE-102014109024-$ or DE-102013225501-$ or DE-102013208249-$).did.				
L49	32	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) and @ad<"20160115" not L48 not 29	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:15
L50	6	(US-8287191-$ or US-8100588-$ or US-7798727-$ or US-6200041-$).did. or (US-20060089049-$ or EP-729048-$).did.	USPAT; DERWENT	OR	ON	2022/03/31 18:19
L51	15	(US-20160154190-$ or US-20160109661-$ or US-20150212282-$ or US-20110286702-$ or US-20100220961-$ or US-20090148106-$).did. or (US-7824113-$ or US-7708474-$ or US-7703987-$ or US-6672898-$ or US-6409392-$ or US-6250817-$ or US-6085006-$ or US-5675682-$).did. or (DE-102014109024-$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2022/03/31 18:19
L52	1	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not L51 and @ad<"20160115" not 50	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:19

L53	12	(US-20120033922-$ or US-20090220227-$ or US-20030190123-$ or US-20020090177-$).did. or (US-9557497-$ or US-9063303-$ or US-8152385-$).did. or (WO-2011146165-$ or CN-104808296-$ or CA-2744098-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:19
L54	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:20
L55	16	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3879,4284.cpc.) not L54 and @ad<"20160115" not 53	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:20
L56	15	(US-20120033922-$ or US-20090220227-$ or US-20090220200-$ or US-20070117457-$ or US-20030190123-$ or US-20020090177-$).did. or (US-9557497-$ or US-9063303-$ or US-8152385-$ or US-6478472-$).did. or (WO-2011146165-$ or CN-104808296-$ or CA-2744098-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2022/03/31 18:20
L57	18	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,3879,3885,3893.cpc.) not L54 and @ad<"20160115" not 56	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:21
L68	178	(US-20170184798-$ or US-20170110832-$ or US-20170108430-$ or US-20170025791-$ or US-20160190737-$ or US-20160161688-$ or US-20160161682-$ or US-20160111819-$ or US-20160091670-$ or US-20160062057-$ or US-20150277066-$ or US-20150078710-$ or US-20140133821-$ or US-20140050443-$ or US-20130260595-$ or US-20130244472-$ or US-20130216186-$ or US-20130183001-$ or US-20130156379-$ or US-20120251054-$ or US-	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2022/03/31 18:22

20100209050-$ or US-20100136809-$ or US-20090046981-$ or US-20090010600-$ or US-20080273837-$ or US-20080085082-$).did. or (US-20070280599-$ or US-20070160327-$ or US-20070025665-$ or US-20060204178-$ or US-20060169856-$ or US-20060093282-$ or US-20050286833-$ or US-20050069262-$ or US-20040218885-$ or US-20040165832-$ or US-20040105625-$ or US-20040091214-$ or US-20040033027-$ or US-20040013388-$ or US-20030165302-$ or US-20030165301-$ or US-20020111067-$ or US-20020076165-$ or US-20020006253-$).did. or (US-9882309-$ or US-9799990-$ or US-9755358-$ or US-9748708-$ or US-9698529-$ or US-9640907-$ or US-9564710-$ or US-9509095-$ or US-9484669-$ or US-9413106-$ or US-9391399-$ or US-9362662-$ or US-9350118-$ or US-9225110-$ or US-9203183-$ or US-9197015-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9088101-$ or US-9077110-$ or US-9065207-$ or US-9048567-$ or US-9004935-$ or US-8986036-$ or US-8979569-$).did. or (US-8894426-$ or US-8876539-$ or US-8876404-$ or US-8647134-$ or US-8641442-$ or US-8585426-$ or US-8573998-$ or US-8556646-$ or US-8545252-$ or US-8506315-$ or US-8475197-$ or US-8444430-$ or US-8439699-$ or US-8241053-$ or US-8206171-$ or US-8169783-$ or US-8083539-$ or US-8062049-$ or US-8057245-$ or US-8038484-$ or US-7997914-$ or US-7980875-$ or US-7753710-$ or US-7744399-$ or US-7455545-$ or US-7442063-$ or US-7322845-$).did. or (US-7314384-$ or US-7309250-$ or US-7255587-$ or US-7186134-$ or US-6881095-$ or US-6875033-$ or US-6866535-$ or US-6814606-$ or US-6805573-$ or US-6726369-$ or US-6666704-$ or US-6648666-$ or US-6599025-$ or US-6592391-$ or US-6572273-$ or US-6532653-$ or US-6515866-$ or US-6464402-$ or US-6389212-$ or US-6325547-$ or US-6287018-$ or US-6276839-$ or US-6264374-$ or US-6238101-$ or US-6206581-$ or US-6186670-$ or US-6142676-$).did. or (US-6095841-$ or US-6086263-$ or US-6045270-$ or US-5971626-$ or US-5956444-$ or US-5938466-$ or US-5883995-$ or US-5845036-$ or US-5757997-$ or US-5748818-$ or US-5737463-$ or US-5734770-$ or US-5732174-$ or US-5721799-$ or US-5600747-$ or US-5420951-$ or US-5363460-$ or US-5344194-$ or US-5245683-$ or US-5073042-$ or US-4848870-$ or US-4818058-$ or US-4798430-$ or US-4712861-$ or US-4168109-$ or US-4084882-$ or US-

		3995363-$).did. or (US-3951514-$ or US-10027060-$).did. or (MX-150396-$ or GB-201416966-$ or GB-1500102-$ or EP-2277240-$ or EP-0524392-$ or DE-69303217-$ or CN-103718392-$ or BE-649814-$ or AT-394912-$).did. or (JP-2014203722-$ or JP-2012099254-$ or JP-04034876-$).did. or (WO-2015153090-$ or US-7318740-$ or US-20120251054-$ or GB-2159345-$ or EP-1079473-$ or EP-1017262-$ or CA-2726185-$).did.				
L78	185	(US-20160126671-$ or US-20160126667-$ or US-20160104981-$ or US-20160028185-$ or US-20160020555-$ or US-20150364868-$ or US-20150288102-$ or US-20150280362-$ or US-20150236447-$ or US-20150180172-$ or US-20150104967-$ or US-20150037999-$ or US-20150020189-$ or US-20150011111-$ or US-20140295684-$ or US-20140295683-$ or US-20140273593-$ or US-20140242818-$ or US-20140235087-$ or US-20140187075-$ or US-20140179143-$ or US-20140162497-$ or US-20140134898-$ or US-20140113508-$ or US-20140094051-$ or US-20140051277-$).did. or (US-20140045362-$ or US-20130303014-$ or US-20130288510-$ or US-20130288507-$ or US-20130280932-$ or US-20130252448-$ or US-20130210261-$ or US-20130196549-$ or US-20130183846-$ or US-20130130532-$ or US-20130094811-$ or US-20120294571-$ or US-20120220147-$ or US-20120108097-$ or US-20120058665-$ or US-20120058652-$ or US-20120052714-$ or US-20120045923-$ or US-20110318950-$ or US-20110312207-$ or US-20110212645-$ or US-20110177710-$ or US-20110111618-$ or US-20110104929-$ or US-20110056723-$ or US-20110014804-$ or US-20100246142-$).did. or (US-20100197159-$ or US-20100144186-$ or US-20100087084-$ or US-20090311903-$ or US-20090149731-$ or US-20090088023-$ or US-20090007399-$ or US-20080248671-$ or US-20070123076-$ or US-20070059953-$ or US-20060134985-$ or US-20060134961-$ or US-20060094281-$ or US-20060030192-$ or US-20050106918-$ or US-20040166711-$ or US-20040161958-$ or US-20040110406-$ or US-20040092150-$ or US-20040077226-$ or US-20040043664-$ or US-20020090855-$ or US-20020076962-$ or US-20020057550-$).did. or (US-9318845-$ or US-9263831-$ or US-9257804-$ or US-9184538-$ or US-8926347-$ or US-7862384-$ or US-7484991-$ or US-7465181-$ or US-7422471-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; DERWENT	OR	ON	2022/03/31 18:23

		7318740-$ or US-7083459-$ or US-7066746-$ or US-6955563-$ or US-6913482-$ or US-6884099-$ or US-6811422-$ or US-6793516-$ or US-6745911-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6589066-$ or US-6579029-$ or US-6533603-$ or US-6439918-$).did. or (US-6406309-$ or US-6394842-$ or US-6371787-$ or US-6358080-$ or US-6332795-$ or US-6283781-$ or US-6045393-$ or US-6030244-$ or US-6019630-$ or US-5873737-$ or US-5857866-$ or US-5823809-$ or US-5795175-$ or US-5751135-$ or US-5727966-$ or US-5676556-$ or US-5645440-$ or US-5616038-$ or US-5613869-$ or US-5575675-$ or US-5575672-$ or US-5571030-$ or US-5538439-$ or US-5474461-$ or US-5435748-$ or US-5409393-$ or US-5350312-$).did. or (US-5217384-$ or US-5104330-$ or US-5074807-$ or US-5021003-$ or US-4886462-$ or US-4709975-$ or US-4681386-$ or US-4624472-$ or US-4589716-$ or US-4586766-$ or US-4550961-$ or US-4361375-$ or US-4181386-$ or US-4172626-$ or US-4120553-$ or US-4113337-$ or US-4093332-$ or US-4074928-$ or US-4061407-$ or US-3801757-$).did. or (US-3409858-$ or US-3243659-$ or US-3209303-$ or US-3178674-$ or US-3093773-$ or US-3020513-$ or US-2760174-$ or US-2748362-$ or US-2724094-$).did. or (WO-2014202489-$ or WO-2014168127-$ or WO-2013162590-$ or WO-2013037123-$ or WO-2009130529-$ or JP-H04133370-$ or GB-1039396-$ or EP-2644442-$ or EP-1578183-$ or EP-1017262-$ or EP-0758150-$ or EP-0568018-$ or DE-3731718-$ or DE-3123825-$ or DE-20317563-$ or DE-10222877-$).did. or (WO-2014202489-$).did.				
L79	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:23
L80	168	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,3879,3885,3893.cpc.) not L79 not L78 and @ad<"20160115" not 68	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2022/03/31 18:23

			JPO; DERWENT; IBM_TDB			
L81	2	(remote adj1 release and pulled and depressible adj1 latching adj1 arm and optical adj1 fiber adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2022/03/31 18:26
L82	7	("10158194").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:26
L83	2	("10520690").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:30
L84	2	("9595786").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2022/03/31 18:33
S3	5	((Kazuyoshi) near2 (Takano)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:06
S4	7	((Kazuyoshi) near2 (Takano)).INV.	US-PGPUB;	OR	OFF	2016/06/27 14:06

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S5	46	((Jeffrey) near2 (Gniadek)).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:07
S6	128	((Jeffrey) near2 (Gniadek)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:07
S7	1	(13/286773).APP.	USPAT; USOCR	OR	OFF	2016/06/27 14:08
S8	99	("20040052473" | "20040136657" | "20040141693" | "20040161958" | "20060089049" | "20060269194" | "20070149062" | "20070230874" | "20070232115" | "20070243749" | "20080044137" | "20080069501" | "20080101757" | "20080226237" | "20080267566" | "20090028507" | "20090214162" | "20090220197" | "20100034502" | "20100322561" | "20110044588" | "20110131801" | "20110177710" | "4762388" | "4764129" | "4840451" | "5212752" | "5317663" | "5348487" | "5444806" | "5481634" | "5506922" | "5570445" | "5588079" | "5684903" | "5687268" | "5937130" | "5956444" | "5971626" | "6041155" | "6206577" | "6206581" | "6227717" | "6247849" | "6461054" | "6478472" | "6551117" | "6579014" | "6648520" | "6854894" | "7090406" | "7090407" | "7091421" | "7111990" | "7113679" | "7150567" | "7153041" | "7198409" | "7207724" | "7258493" | "7281859" | "7315682" | "7325976" | "7325980" | "7329137" | "7354291" | "7387447" | "7390203" | "7431604" | "7463803" | "7465180" | "7561775" | "7591595" | "7594766" | "7641398" | "7695199" | "7699533" | "7824113" | "8251733" | "D323143" | "D533504" | "D534124" | "D543146" | "D558675" | "D572661" | "D641708" | "RE37080").PN. OR ("8465317").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:08

S9	31	("5462457" | "5494457" | "6238251" | "6250949" | "6371787" | "7052186" | "7063554").PN. OR ("7465180").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:11
S10	720	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip member) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:25
S11	484	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:26
S12	2	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) with spring	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:39
S13	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:39
S14	26	("4953929" | "5608830" | "5675682" | "6409392" | "6511230").PN. OR ("6672898").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:41
S15	49	("5538438" | "5574812" | "5579425" | "5638474" | "5647043").PN. OR ("6250817").URPN.	US-PGPUB;	OR	OFF	2016/06/27 14:42

			USPAT; USOCR			
S16	31	("20030064630" | "20040009699" | "20040247252" | "20050277335" | "20090275228" | "20100304617" | "20110045683" | "20110124217" | "5090096" | "5233674" | "5308260" | "5358430" | "5638474" | "5647765" | "6250817" | "6254418" | "6357934" | "6398569" | "6544076" | "6595805" | "6612856" | "6746264" | "6764333" | "7314384" | "7473124" | "7534128" | "7588373" | "7651361" | "8235745" | "8382506").PN. OR ("8556645").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 14:44
S17	0	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:47
S18	6,884	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) with spring not S12	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:47
S19	1,327	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:48
S20	300	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S13	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/06/27 14:49

			T; IBM_TDB			
S21	25	(duplex near3 (connector plug)) with (small adj2 factor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:53
S22	0	(duplex near3 (connector plug)) with (small adj2 factor) with pitch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:55
S23	13	(duplex near3 (connector plug)) with pitch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 14:55
S24	31	(duplex near3 (connector plug)) same ((high large) near3 (density count))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:00
S25	1	(12/040986).APP.	USPAT; USOCR	OR	OFF	2016/06/27 15:05
S26	24	("20080037938" | "4645295" | "4784456" | "4787706" | "4871227" | "5579425" | "5731546" | "6048106" | "6250817" | "6325549" | "6485192" | "6551117" | "6607307" | "6632030" | "6762940" | "6824416" | "7013088" | "7031574" | "7077686" |	US-PGPUB; USPAT; USOCR	OR	OFF	2016/06/27 15:05

		"7090509" | "7178996" | "7350984" | "7421181" | "7488123").PN. OR ("7798727").URPN.				
S27	14	(duplex near3 (connector plug adapter receptacle)) same (pitch with (small$3 reduc$3 reduction mm))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:08
S28	6,622	(connector plug adapter receptacle) same (pitch with (small$3 reduc$3 reduction mm)) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:10
S29	34	(connector plug adapter receptacle) same (pitch with mm with (ferrule fiber)) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:11
S30	59	(duplex near3 (connector plug adapter receptacle)) same ((distance pitch spac$3) with (small$3 reduc$3 reduction mm)) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:13
S31	4	(duplex near3 (connector plug adapter receptacle)) same ((distance pitch spac$3) with (small$3 reduc$3 reduction) with mm) not S27	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/06/27 15:14

			T; IBM_TDB			
S32	3	(mini miniatur$5) with (duplex near3 (connector plug adapter receptacle))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:18
S33	0	(duplex near3 (connector plug adapter receptacle)) and (pitch with "4.8" adj1 mm)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:32
S34	0	(duplex near3 (connector plug adapter receptacle)) with ("4.8" adj1 mm)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:33
S35	66	(connector plug adapter receptacle) with ("4.8" adj1 mm)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:33
S36	66	(connector plug adapter receptacle) with ("4.8 mm")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/06/27 15:33

			T; IBM_TDB			
S37	7	(connector plug adapter receptacle) with ("4.8mm")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:33
S38	0	(pull adj1 tab and coupled and latching adj1 arms and remotely adj1 unlatch and narrow adj1 pitch adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:48
S39	0	(pull adj1 tab and coupled and latching adj1 arms and remotely adj1 unlatch and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/06/27 15:48
S40	3	"20150111417"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/07/12 16:35
S41	8	((Kazuyoshi) near2 (Takano)).INV.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/09/17 00:32

			T; IBM_TDB			
S42	79	((Jeffrey) near2 (Gniadek)).INV. and connector	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:33
S43	0	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same sping and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:35
S44	313	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 00:35
S45	33	("20030064630" | "20040009699" | "20040247252" | "20050277335" | "20090275228" | "20100159742" | "20100304617" | "20110045683" | "20110124217" | "5090096" | "5233674" | "5308260" | "5358430" | "5638474" | "5647765" | "6250817" | "6254418" | "6357934" | "6398569" | "6544076" | "6595805" | "6612856" | "6746264" | "6764333" | "7314384" | "7473124" | "7534128" | "7562116" | "7588373" | "7651361" | "8235745" | "8382506" | "8425247").PN. OR ("8747141").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 00:52
S46	795	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/09/17 01:00

			T; IBM_TDB			
S47	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 01:00
S48	59	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S44 not S47	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 01:03
S49	1	("7052186").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 01:12
S50	0	(pull adj1 tab and disengage and narrow adj1 pitch adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:17
S51	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:17
S52	10	(US-20160033723-$ or US-20160011383-$ or US-20150177463-$ or US-20140147082-$ or US-20140072263-$ or US-20140050443-$ or US-	US-PGPUB; USPAT;	OR	OFF	2016/09/17 12:18

		20120155810-$ or US-20030137651-$).did. or (US-6302596-$).did. or (US-20120155810-$).did.	DERWENT			
S53	6	(duplex near3 (connector plug adapter receptacle)) same (pitch with (small$3 reduc$3 reduction mm)) not S52	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:18
S54	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:20
S55	310	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S54	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:20
S56	0	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S54 not S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:20
S57	32	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S54 not S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2016/09/17 12:21

			T; IBM_TDB			
S58	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:23
S59	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:25
S60	37	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and ("385".clas. "439".clas.) not S59	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:26
S61	33	("7052186" | "20030063862" | "20060140543" | "20110058773" | "5845036" | "20150111417" | "20100239220" | "20110267742" | "6668113" | "20120237177" | "20120155810" | "6276840" | "7473124").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2016/09/17 12:41
S62	1	("6276840").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:50
S63	0	("201102677742").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:53

S64	1	("20110267742").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:53
S65	1	("6668113").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 14:59
S66	1	("20110058773").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2016/09/17 20:56
S67	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2017/03/20 23:00
S68	8	((Kazuyoshi) near2 (Takano)).INV. not S67	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:00
S69	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2017/03/20 23:02
S70	81	((Jeffrey) near2 (Gniadek)).INV. and connector not S69	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:02
S71	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/03/20 23:03

		20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S72	314	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:03
S73	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:03
S74	14	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S72 not S73 not S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:03
S75	18	(US-20150093925-$ or US-20140169749-$ or US-20140127930-$ or US-20130194753-$ or US-20120237177-$ or US-20120064754-$ or US-20110267742-$ or US-20110223792-$ or US-20050059290-$ or US-20040132327-$).did. or (US-9413110-$ or US-6666484-$ or US-6556450-$ or US-6434015-$ or US-6093044-$ or US-	US-PGPUB; USPAT; DERWENT	OR	OFF	2017/03/20 23:05

		5709560-$ or US-5484297-$).did. or (US-20130210261-$).did.				
S76	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:05
S77	334	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S76	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:05
S78	33	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S76 not S77 not S75	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:05
S79	2	(US-20140273593-$).did. or (WO-2013037123-$).did.	US-PGPUB; FPRS	OR	OFF	2017/03/20 23:07
S80	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S79	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:07
S81	8	(US-20140273593-$ or US-20140235091-$ or US-20140127926-$).did. or (US-7717625-$ or US-7517241-$ or US-7168972-$ or US-6817272-$ or US-4846708-$).did.	US-PGPUB; USPAT	OR	OFF	2017/03/20 23:08

S82	1	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S81	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:08
S83	31	(US-20160156140-$ or US-20150132981-$ or US-20140021915-$ or US-20110274402-$ or US-20110269340-$ or US-20110268412-$ or US-20110268411-$ or US-20110268410-$ or US-20110268409-$ or US-20110268408-$ or US-20110268407-$ or US-20110268406-$ or US-20090046981-$ or US-20090029585-$ or US-20080132101-$ or US-20080070446-$ or US-20040092165-$).did. or (US-8690591-$ or US-7913379-$ or US-6106320-$ or US-5959848-$ or US-5752850-$ or US-5734770-$ or US-5732174-$ or US-5711558-$ or US-5682450-$ or US-4798430-$ or US-4750890-$ or US-4182017-$).did. or (DE-3145444-$).did. or (US-20080070446-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/03/20 23:09
S84	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:09
S85	6	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and ("385".clas. "439".clas.) not S84 not S83	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:09
S86	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2017/03/20 23:10

			JPO; DERWENT; IBM_TDB			
S87	0	(pull adj1 tab and disengage and narrow adj1 width and connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/03/20 23:11
S88	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2017/07/19 13:32
S89	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:32
S90	6	((Kazuyoshi) near2 (Takano)).INV. not S89 not S88	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:32
S91	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2017/07/19 13:33
S92	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2017/07/19 13:33

S93	68	((Jeffrey) near2 (Gniadek)).INV. and connector not S92 not S91	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:33
S94	110	("20040052473" | "20040136657" | "20040141693" | "20040161958" | "20060089049" | "20060269194" | "20070149062" | "20070230874" | "20070232115" | "20070243749" | "20080044137" | "20080069501" | "20080101757" | "20080226237" | "20080267566" | "20090028507" | "20090214162" | "20090220197" | "20100034502" | "20100322561" | "20110044588" | "20110131801" | "20110177710" | "4762388" | "4764129" | "4840451" | "5212752" | "5317663" | "5348487" | "5444806" | "5481634" | "5506922" | "5570445" | "5588079" | "5684903" | "5687268" | "5937130" | "5956444" | "5971626" | "6041155" | "6206577" | "6206581" | "6227717" | "6247849" | "6461054" | "6478472" | "6551117" | "6579014" | "6648520" | "6854894" | "7090406" | "7090407" | "7091421" | "7111990" | "7113679" | "7150567" | "7153041" | "7198409" | "7207724" | "7258493" | "7281859" | "7315682" | "7325976" | "7325980" | "7329137" | "7354291" | "7387447" | "7390203" | "7431604" | "7463803" | "7465180" | "7561775" | "7591595" | "7594766" | "7641398" | "7695199" | "7699533" | "7824113" | "8251733" | "D323143" | "D533504" | "D534124" | "D543146" | "D558675" | "D572661" | "D641708" | "RE37080").PN. OR ("8465317").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/19 13:38
S95	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:44
S96	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/07/19 13:44

		(US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S97	315	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:44
S98	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:44
S99	4	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S97 not S98 not S96 not S95	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:44
S100	16	(US-20170047679-$ or US-20160041349-$ or US-20130045623-$ or US-20070280604-$ or US-20060258201-$ or US-20050191892-$ or US-20050036743-$ or US-20030142917-$).did. or (US-9052473-$ or US-8814229-$ or US-8790022-$ or US-8670238-$ or US-8388367-$ or US-8317534-$ or US-6994478-$ or US-6887092-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:45
S101	18	(US-20150093925-$ or US-20140169749-$ or US-20140127930-$ or US-20130194753-$ or US-	US-PGPUB;	OR	OFF	2017/07/19 13:45

		20120237177-$ or US-20120064754-$ or US-20110267742-$ or US-20110223792-$ or US-20050059290-$ or US-20040132327-$).did. or (US-9413110-$ or US-6666484-$ or US-6556450-$ or US-6434015-$ or US-6093044-$ or US-5709560-$ or US-5484297-$).did. or (US-20130210261-$).did.	USPAT; DERWENT			
S102	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:45
S103	342	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S102	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:45
S104	19	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S102 not S103 not S101 not S100	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:45
S105	4	(US-9595786-$ or US-8979569-$).did. or (CN-103718392-$).did.	USPAT; FPRS	OR	OFF	2017/07/19 13:45
S106	2	(US-20140273593-$).did. or (WO-2013037123-$).did.	US-PGPUB; FPRS	OR	OFF	2017/07/19 13:47
S107	6	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S106 not S105	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2017/07/19 13:47

			T; IBM_TDB			
S108	8	(US-20140273593-$ or US-20140235091-$ or US-20140127926-$).did. or (US-7717625-$ or US-7517241-$ or US-7168972-$ or US-6817272-$ or US-4846708-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:48
S109	1	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S108	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:48
S110	6	(US-20160064860-$).did. or (US-8965168-$ or US-8705926-$ or US-8172608-$ or US-7611372-$ or US-7497721-$).did.	US-PGPUB; USPAT	OR	OFF	2017/07/19 13:50
S111	31	(US-20160156140-$ or US-20150132981-$ or US-20140021915-$ or US-20110274402-$ or US-20110269340-$ or US-20110268412-$ or US-20110268411-$ or US-20110268410-$ or US-20110268409-$ or US-20110268408-$ or US-20110268407-$ or US-20110268406-$ or US-20090046981-$ or US-20090029585-$ or US-20080132101-$ or US-20080070446-$ or US-20040092165-$).did. or (US-8690591-$ or US-7913379-$ or US-6106320-$ or US-5959848-$ or US-5752850-$ or US-5734770-$ or US-5732174-$ or US-5711558-$ or US-5682450-$ or US-4798430-$ or US-4750890-$ or US-4182017-$).did. or (DE-3145444-$).did. or (US-20080070446-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2017/07/19 13:50
S112	9	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:50
S113	0	(spring adj1 loaded) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3 disengag$5) adj1 (tab tool lever handle clip) and ("385".clas. "439".clas.) not S112 not S111 not S110	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2017/07/19 13:50

			JPO; DERWENT; IBM_TDB			
S114	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 13:50
S115	1	("8465317").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/19 21:54
S116	1	adaptor with latch$3 with hook$3 with (connector plug) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:13
S117	9	adaptor with latch$3 with hook$3 with (connector plug)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:13
S118	48	adaptor with latch$3 and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:14
S119	1	(13/678686).APP.	USPAT; USOCR	OR	OFF	2017/07/19 23:22

S120	9	("20020168148" | "20090220198" | "5037175" | "7373031" | "7785018").PN. OR ("8834038").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/19 23:22
S121	4	"20160116686"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/19 23:31
S122	1	("8465317").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/21 20:54
S123	1	(12/040986).APP.	USPAT; USOCR	OR	OFF	2018/03/01 22:28
S124	24	("20080037938" | "4645295" | "4784456" | "4787706" | "4871227" | "5579425" | "5731546" | "6048106" | "6250817" | "6325549" | "6485192" | "6551117" | "6607307" | "6632030" | "6762940" | "6824416" | "7013088" | "7031574" | "7077686" | "7090509" | "7178996" | "7350984" | "7421181" | "7488123").PN. OR ("7798727").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/01 22:28
S125	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/03/01 22:31
S126	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2018/03/01 22:32
S127	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2018/03/01 22:32
S128	14	((Kazuyoshi) near2 (Takano)).INV. not S127 not S126 not S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 22:32

S129	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/03/01 22:35
S130	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/03/01 22:35
S131	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2018/03/01 22:35
S132	77	((Jeffrey) near2 (Gniadek)).INV. and connector not S131 not S130 not S129	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 22:35
S133	3,095	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:04
S134	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2018/03/01 23:05
S135	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-	US-PGPUB;	OR	OFF	2018/03/01 23:05

		20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	USPAT; EPO; DERWENT			
S136	315	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:05
S137	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:05
S138	485	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S136 not S137 not S135 not S134	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:05
S139	29	("4026624" | "4548455" | "4632121" | "4681387" | "4726783" | "4925398" | "5207593" | "5318457" | "5330366" | "5334041" | "5634809" | "5919056"	US-PGPUB;	OR	OFF	2018/03/01 23:34

		| "5951316" | "6030244" | "6113416" | "6149451" | "6174190" | "6358081" | "6368140" | "6386898" | "6475014" | "6494732" | "6497585").PN. OR ("6592390").URPN.	USPAT; USOCR			
S140	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:42
S141	927	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S140 not S138	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:43
S142	266	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S140 not S138	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/01 23:43
S143	1	(13/527129).APP.	USPAT; USOCR	OR	OFF	2018/03/01 23:53
S144	16	("5716049" | "7134914" | "7281937" | "7476117" | "7540755" | "7736171" | "7938669" | "8251735" | "8267713").PN. OR ("8444430").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/01 23:53
S145	1	(12/367677).APP.	USPAT; USOCR	OR	OFF	2018/03/02 00:09
S146	44	("20080037938" | "4645295" | "4784456" | "4787706" | "4871227" | "5579425" | "5731546" | "6048106" | "6250817" | "6325549" | "6485192" | "6551117" | "6607307" | "6632030" | "6762940" | "6824416" | "7013088" | "7031574" | "7077686" | "7090509" | "7178996" | "7350984" | "7421181" | "7488123").PN. OR ("7824113").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/02 00:09

S147	36	(US-20160116686-$ or US-20160109661-$ or US-20160054527-$ or US-20140334780-$ or US-20140056562-$ or US-20120329304-$ or US-20120129379-$ or US-20120051699-$ or US-20100112845-$ or US-20100025480-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070098329-$ or US-20060013542-$ or US-20030228777-$).did. or (US-8920045-$ or US-8083417-$ or US-7850371-$ or US-7445389-$ or US-7377699-$ or US-6149450-$ or US-5603630-$ or US-5429522-$ or US-5316495-$ or US-5124506-$ or US-4964809-$ or US-4462656-$ or US-4061411-$).did. or (US-2732531-$).did. or (US-20160109661-$ or US-20120329304-$ or US-20120129379-$ or EP-880106-$ or EP-2700992-$ or EP-1143570-$).did.	US-PGPUB; USPAT; USOCR; DERWENT	OR	OFF	2018/03/02 19:13
S148	1,602	(adaptor receptacle) with latch$3 and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:15
S149	198	(adaptor receptacle) with latch$3 and (pull releas$3 extract$3) near3 (tab handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:20
S150	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2018/03/02 19:22
S151	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2018/03/02 19:22

		or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S152	315	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S153	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S154	485	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S152 not S153 not S151 not S150	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S155	20	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22

S156	266	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S155 not S154	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S157	150	(adaptor receptacle) with latch$3 and (pull releas$3 extract$3) near3 (tab handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147 not S154 not S156	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:22
S158	206	(adaptor receptacle transceiver transponder sfp) with latch$3 and (pull releas$3 extract$3) near3 (tab handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls. H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S147 not S154 not S156	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:24
S159	19	("5634809").PN. OR ("5915987").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/03/02 19:43
S160	3	(pull adj1 tab and ramp and disengage and connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/03/02 19:46
S161	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:29

S162	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:29
S163	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2018/08/29 11:29
S164	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2018/08/29 11:29
S165	13	((Kazuyoshi) near2 (Takano)).INV. not S164 not S163 not S162 not S161	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:29
S166	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:30
S167	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2018/08/29 11:30
S168	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2018/08/29 11:30
S169	87	((Jeffrey) near2 (Gniadek)).INV. and connector not S168 not S167 not S166	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/08/29 11:30

			EPO; JPO; DERWENT; IBM_TDB			
S170	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2018/08/29 11:34

20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-

7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-

		2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S171	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2018/08/29 11:34
S172	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2018/08/29 11:34
S173	316	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:34

S174	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:34
S175	113	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S173 not S174 not S172 not S171 not S170	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:34
S176	21	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) with spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S173 not S174 not S172 not S171 not S170	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:37
S177	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2018/08/29 11:38

		20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S178	489	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S173 not S174 not S172 not S171	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2018/08/29 11:39

			JPO; DERWENT; IBM_TDB			
S179	21	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:39
S180	45	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S179 not S178 not S177	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 11:39
S181	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/08/29 21:38
S182	10	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:10
S183	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:10
S184	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:10

S185	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2019/03/31 14:10
S186	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2019/03/31 14:10
S187	46	((Kazuyoshi) near2 (Takano)).INV. not S186 not S185 not S184 not S183 not S182	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:10
S188	24	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:15
S189	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:15
S190	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:15
S191	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-	US-PGPUB; FPRS; EPO	OR	OFF	2019/03/31 14:15

		$ or AU-2006236409-$).did. or (WO-2006113726-$).did.				
S192	74	((Jeffrey) near2 (Gniadek)).INV. and connector not S191 not S190 not S189 not S187 not S188	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:15
S193	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/03/31 14:26
S194	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-	US-PGPUB; USPAT; USOCR; EPO;	OR	OFF	2019/03/31 14:26

		20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-	JPO; DERWENT			

20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or

US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-

		20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S195	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2019/03/31 14:26
S196	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2019/03/31 14:26
S197	320	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:26
S198	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:26
S199	31	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever	US-PGPUB;	OR	OFF	2019/03/31 14:26

		handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S197 not S198 not S196 not S195 not S194 not S193	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S200	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/03/31 14:29
S201	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2019/03/31 14:29

		or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S202	493	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S197 not S198 not S196 not S195	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:29
S203	21	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:29

S204	39	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S203 not S202 not S201 not S200	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:29
S205	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/31 14:32
S206	25	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15
S207	10	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15
S208	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15
S209	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:15

S210	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2019/08/05 19:15
S211	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2019/08/05 19:15
S212	51	((Kazuyoshi) near2 (Takano)).INV. not S211 not S210 not S209 not S208 not S207 not S206	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:15
S213	21	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:16
S214	76	((Kazuyoshi) near2 (Takano)).INV. not S211 not S210 not S209 not S208 not S207	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S215	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:17
S216	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or	US-PGPUB;	OR	OFF	2019/08/05 19:17

		WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	USPAT; FPRS			
S217	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2019/08/05 19:17
S218	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2019/08/05 19:17
S219	58	((Jeffrey) near2 (Gniadek)).INV. and connector not S218 not S217 not S216 not S214 not S215 not S213	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S220	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/08/05 19:17
S221	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or	US-PGPUB; USPAT; DERWENT	OR	OFF	2019/08/05 19:17

		US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.				
S222	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2019/08/05 19:17

20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-

20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-

		4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S223	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2019/08/05 19:17
S224	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2019/08/05 19:17

		4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S225	320	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S226	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S227	17	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S225 not S226 not S224 not S223 not S222 not S221 not S220	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:17
S228	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2019/08/05 19:18
S229	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2019/08/05 19:19
S230	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-	US-PGPUB;	OR	OFF	2019/08/05 19:19

		9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	USPAT; FPRS			
S231	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2019/08/05 19:19

		or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S232	494	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S225 not S226 not S224 not S223	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:19
S233	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:19
S234	36	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S233 not S232 not S231 not S230 not S229	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:19

S235	0	(pull adj1 tab and disengage and narrow adj1 width adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/08/05 19:21
S236	23	("20030063862" | "20060140543" | "20090220200" | "20100239220" | "20110058773" | "20110267742" | "20120155810" | "20120237177" | "20120273262" | "20150093083" | "20150111417" | "20160116686" | "5845036" | "5915987" | "6276840" | "6668113" | "7052186" | "7473124" | "8113723" | "8465317" | "9523826" | "9541719" | "9877413").PN.	US-PGPUB; USPAT	OR	OFF	2019/08/05 19:34
S237	28	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2020/07/18 11:20
S238	27	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21
S239	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21
S240	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-	US-PGPUB;	OR	OFF	2020/07/18 11:21

		20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	USPAT; FPRS			
S241	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:21
S242	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2020/07/18 11:21
S243	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2020/07/18 11:21
S244	144	((Kazuyoshi) near2 (Takano)).INV. not S243 not S242 not S241 not S240 not S239 not S238 not S237	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:21
S245	14	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2020/07/18 11:23
S246	24	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S247	199	((Kazuyoshi) near2 (Takano)).INV. not S243 not S242 not S241 not S240 not S239	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:23

S248	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S249	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S250	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:23
S251	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2020/07/18 11:23
S252	58	((Jeffrey) near2 (Gniadek)).INV. and connector not S251 not S250 not S249 not S247 not S248 not S246 not S244 not S245	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:23
S253	7	(US-20190148881-$ or US-20110143573-$).did. or (US-8425247-$ or US-8414196-$ or US-7950948-$ or US-7950947-$ or US-7357582-$).did.	US-PGPUB; USPAT	OR	ON	2020/07/18 11:25
S254	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or	US-PGPUB; USPAT;	OR	OFF	2020/07/18 11:25

		US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	DERWENT			
S255	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2020/07/18 11:25
S256	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2020/07/18 11:25

20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-

20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-

		5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S257	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2020/07/18 11:25

S258	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2020/07/18 11:25
S259	319	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:25
S260	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:25
S261	14	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S259 not S260 not S258 not S257 not S256 not S255 not S254 not S253	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:25

S262	12	(US-20180156988-$ or US-20140235091-$).did. or (US-9726331-$ or US-9011161-$ or US-6722912-$ or US-10270213-$ or US-10096940-$).did. or (WO-2017123264-$ or EP-3454428-$ or CN-2596604-$).did. or (EP-3454428-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2020/07/18 11:28
S263	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2020/07/18 11:28
S264	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2020/07/18 11:28
S265	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2020/07/18 11:28

		20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S266	496	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S259 not S260 not S258 not S257	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:28
S267	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls.	US-PGPUB; USPAT; USOCR;	OR	OFF	2020/07/18 11:28

		439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S268	41	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S267 not S266 not S265 not S264 not S263 not S262	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:28
S269	5	(pull adj1 tab and disengage and narrow adj1 width adj3 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:29
S270	27	("20030063862" | "20030156796" | "20060140543" | "20090220200" | "20100239220" | "20110058773" | "20110267742" | "20120155810" | "20120237177" | "20120273262" | "20140056562" | "20150030289" | "20150093083" | "20150111417" | "20160116686" | "5845036" | "5915987" | "6276840" | "6668113" | "7052186" | "7473124" | "8113723" | "8465317" | "8556645" | "9523826" | "9541719" | "9877413").PN.	US-PGPUB; USPAT	OR	ON	2020/07/18 11:32
S271	2	"20030156796"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 11:41
S272	2	("10520690").PN.	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2020/07/18 11:51

			EPO; JPO; DERWENT; IBM_TDB			
S273	2	("8465317").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/07/18 12:21
S274	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/01/24 11:38
S275	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/01/24 11:38
S276	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/01/24 11:38
S277	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/01/24 11:38
S278	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/01/24 11:38
S279	256	((Kazuyoshi) near2 (Takano)).INV. not S278 not S277 not S276 not S275 not S274	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:38

S280	8	(US-20130252453-$ or US-20110230079-$ or US-20110230077-$).did. or (US-8523597-$).did. or (US-7326074-$ or US-5382176-$ or US-20040033027-$ or JP-3162759-$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2021/01/24 11:40
S281	7	(US-20190148881-$ or US-20110143573-$).did. or (US-8425247-$ or US-8414196-$ or US-7950948-$ or US-7950947-$ or US-7357582-$).did.	US-PGPUB; USPAT	OR	ON	2021/01/24 11:41
S282	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/01/24 11:41
S283	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/01/24 11:41
S284	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-	US-PGPUB;	OR	OFF	2021/01/24 11:41

		20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-	USPAT; USOCR; EPO; JPO; DERWENT			

20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or

US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-

		20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S285	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2021/01/24 11:41
S286	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$ or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2021/01/24 11:41
S287	319	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:41
S288	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2021/01/24 11:41

			T; IBM_TDB			
S289	6	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S287 not S288 not S286 not S285 not S284 not S283 not S282 not S281 not S280	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:41
S290	13	(US-20190215585-$ or US-20190044281-$ or US-20040023546-$).did. or (US-9726332-$ or US-10541494-$ or US-10454214-$ or US-10228521-$ or US-10158194-$).did. or (JP-5738489-$ or CN-109473834-$ or CN-108701937-$).did. or (US-7318740-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/01/24 11:42
S291	12	(US-20180156988-$ or US-20140235091-$).did. or (US-9726331-$ or US-9011161-$ or US-6722912-$ or US-10270213-$ or US-10096940-$).did. or (WO-2017123264-$ or EP-3454428-$ or CN-2596604-$).did. or (EP-3454428-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/01/24 11:43
S292	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2021/01/24 11:43
S293	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/01/24 11:43
S294	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2021/01/24 11:43

20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-

		2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S295	496	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S287 not S288 not S286 not S285	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S296	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S297	37	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch) with spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S296 not S295 not S294 not S293 not S292 not S291 not S290	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S298	5	(pull adj1 tab and disengage and narrow adj1 width adj3 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/01/24 11:43
S299	1	("7234879").PN.	US-PGPUB; USPAT	OR	ON	2021/01/24 11:45
S300	2	("8465317").PN.	US-PGPUB; USPAT;	OR	OFF	2021/01/25 13:33

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S301	98	(US-20210018699-$ or US-20200408998-$ or US-20200393630-$ or US-20200386967-$ or US-20200386951-$ or US-20200310048-$ or US-20200310046-$ or US-20200310041-$ or US-20200285000-$ or US-20200278504-$ or US-20200271866-$ or US-20200257060-$ or US-20200218015-$ or US-20200183097-$ or US-20200183093-$ or US-20200174199-$ or US-20200166716-$ or US-20200150353-$ or US-20200142133-$ or US-20200132944-$ or US-20200116957-$ or US-20200116951-$ or US-20200110228-$ or US-20200081201-$ or US-20200081200-$ or US-20200081195-$).did. or (US-20200064564-$ or US-20200049904-$ or US-20200049903-$ or US-20200012050-$ or US-20200003963-$ or US-20190377139-$ or US-20190353855-$ or US-20190353852-$ or US-20190346634-$ or US-20190339475-$ or US-20190324215-$ or US-20190310432-$ or US-20190302374-$ or US-20190285806-$ or US-20190271816-$ or US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190064447-$ or US-20190056557-$ or US-20180364422-$ or US-20180356600-$).did. or (US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10877226-$ or US-10712512-$ or US-10712511-$ or US-10678000-$ or US-10444444-$ or US-10409009-$ or US-10295753-$ or US-10197740-$ or US-10158194-$).did. or (WO-2020172661-$ or WO-2020086184-$ or WO-2020056002-$ or WO-2020055439-$ or WO-2019204527-$ or WO-2019191522-$ or WO-2019190616-$ or WO-2019177762-$ or WO-2019038641-$ or WO-2018218153-$ or WO-2018213514-$ or WO-2018140981-$ or WO-2018140873-$ or GB-2574320-$ or DE-102019206527-$ or CN-110658589-$ or CN-110426790-$ or CN-110031939-$ or CN-	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:30

		108701937-$ or CN-108603987-$ or CA-3069706-$ or CA-3049566-$).did.				
S302	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:30
S303	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:30
S304	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:30
S305	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/06/14 14:30
S306	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/06/14 14:30
S307	223	((Kazuyoshi) near2 (Takano)).INV. not S306 not S305 not S304 not S303 not S302 not S301	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:30
S308	14	(US-20200096707-$ or US-20190265418-$ or US-20100284662-$).did. or (US-9829654-$ or US-7471869-$ or US-10539750-$ or US-10488599-$ or US-10396512-$ or US-10330869-$ or US-10078187-$).did. or (MX-2014004053-$ or EP-3084232-$ or EP-1875287-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:37
S309	29	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or	US-PGPUB; USPAT; FPRS	OR	ON	2021/06/14 14:37

		(WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.				
S310	28	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S311	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S312	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S313	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S314	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/06/14 14:37
S315	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/06/14 14:37
S316	264	((Kazuyoshi) near2 (Takano)).INV. not S315 not S314 not S313 not S312 not S311 not S310 not S309	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2021/06/14 14:37

			T; IBM_TDB			
S317	15	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2021/06/14 14:37
S318	25	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S319	319	((Kazuyoshi) near2 (Takano)).INV. not S315 not S314 not S313 not S312 not S311	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:37
S320	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S321	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37
S322	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:37

S323	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2021/06/14 14:37
S324	80	((Jeffrey) near2 (Gniadek)).INV. and connector not S323 not S322 not S321 not S319 not S320 not S318 not S316 not S317 not S307 not S308	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:37
S325	4	(US-20110230078-$).did. or (US-8602807-$ or US-8545254-$ or US-8545253-$).did.	US-PGPUB; USPAT	OR	ON	2021/06/14 14:39
S326	8	(US-20130252453-$ or US-20110230079-$ or US-20110230077-$).did. or (US-8523597-$).did. or (US-7326074-$ or US-5382176-$ or US-20040033027-$ or JP-3162759-$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2021/06/14 14:40
S327	7	(US-20190148881-$ or US-20110143573-$).did. or (US-8425247-$ or US-8414196-$ or US-7950948-$ or US-7950947-$ or US-7357582-$).did.	US-PGPUB; USPAT	OR	ON	2021/06/14 14:40
S328	15	(US-20130344728-$ or US-20120190230-$ or US-20110143574-$ or US-20080057770-$ or US-20070110374-$).did. or (US-8128422-$ or US-7959361-$ or US-7862367-$ or US-7857652-$ or US-7762727-$ or US-6832926-$).did. or (WO-2010055623-$ or US-20180284363-$ or US-20160211610-$ or JP-10233256-$).did.	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/06/14 14:40
S329	87	(US-20150270662-$ or US-20140073167-$ or US-20100273344-$ or US-20100267271-$ or US-20090060425-$ or US-20030211770-$).did. or (US-8905442-$ or US-8882525-$ or US-8840419-$ or US-8757899-$ or US-8753136-$ or US-8708728-$ or US-8698349-$ or US-8641293-$ or US-8632352-$ or US-8628345-$ or US-8529283-$ or US-8523589-$ or US-8517755-$ or US-8506317-$ or US-8465317-$ or US-8393913-$ or US-8382504-$ or US-8360799-$ or US-8360796-$ or US-8282411-$ or US-8272790-$ or US-8262403-$ or US-8251735-$ or US-8167638-$ or US-8157580-$ or US-8157579-$).did. or (US-	US-PGPUB; USPAT; DERWENT	OR	OFF	2021/06/14 14:40

		8152555-$ or US-8152550-$ or US-8100588-$ or US-8016604-$ or US-7909638-$ or US-7892014-$ or US-7850476-$ or US-7798727-$ or US-7778510-$ or US-7762726-$ or US-7712976-$ or US-7666023-$ or US-7654852-$ or US-7641500-$ or US-7410382-$ or US-7347634-$ or US-7326076-$ or US-7318741-$ or US-7311545-$ or US-7297013-$ or US-7264496-$ or US-7255489-$ or US-7252531-$ or US-7220066-$ or US-7213980-$ or US-7213979-$ or US-7201599-$).did. or (US-7189013-$ or US-7165728-$ or US-7090410-$ or US-7081002-$ or US-7059899-$ or US-7056142-$ or US-6997622-$ or US-6991487-$ or US-6976865-$ or US-6955556-$ or US-6910911-$ or US-6884106-$ or US-6830385-$ or US-6824416-$ or US-6764331-$ or US-6709168-$ or US-6688781-$ or US-6652306-$ or US-6616473-$ or US-6604862-$ or US-6561834-$ or US-6491538-$ or US-5288243-$).did. or (JP-3161161-$ or EP-801447-$ or EP-729048-$ or EP-586359-$).did.				
S330	376	(US-20170237201-$ or US-20160197421-$ or US-20160195685-$ or US-20160154190-$ or US-20160116686-$ or US-20160109661-$ or US-20160072226-$ or US-20160013584-$ or US-20150349442-$ or US-20150340807-$ or US-20150318639-$ or US-20150280337-$ or US-20150249305-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162705-$ or US-20150147033-$ or US-20150125118-$ or US-20150118883-$ or US-20150118882-$ or US-20150037996-$ or US-20140377977-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322952-$ or US-20140322951-$ or US-20140322950-$ or US-20140322949-$ or US-20140315416-$ or US-20140308842-$ or US-20140273588-$ or US-20140226936-$ or US-20140199876-$ or US-20140179146-$ or US-20140148040-$ or US-20140148039-$ or US-20140106596-$ or US-20140062216-$ or US-20140057476-$ or US-20140057474-$ or US-20140045358-$ or US-20140038447-$ or US-20140024229-$ or US-20130337675-$ or US-20130309897-$ or US-20130301993-$ or US-20130273766-$ or US-20130224985-$ or US-20130217252-$ or US-20130216188-$ or US-20130137287-$).did. or (US-20130130522-$ or US-20130102182-$ or US-20130090000-$ or US-20130089995-$ or US-20130023145-$ or US-20120329304-$ or US-20120302082-$ or US-20120252251-$ or US-20120252250-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2021/06/14 14:40

20120238122-$ or US-20120129378-$ or US-20120088392-$ or US-20120083148-$ or US-20120076463-$ or US-20120064755-$ or US-20120064750-$ or US-20120061369-$ or US-20120040552-$ or US-20120015545-$ or US-20120015544-$ or US-20110312205-$ or US-20110306228-$ or US-20110300735-$ or US-20110287649-$ or US-20110281455-$ or US-20110263151-$ or US-20110263149-$).did. or (US-20110237109-$ or US-20110230076-$ or US-20110217865-$ or US-20110212644-$ or US-20110201224-$ or US-20110183541-$ or US-20110183535-$ or US-20110170832-$ or US-20110123157-$ or US-20110115494-$ or US-20110097922-$ or US-20110097920-$ or US-20110086533-$ or US-20110070763-$ or US-20110070756-$ or US-20110059642-$ or US-20110053405-$ or US-20110034053-$ or US-20110021058-$ or US-20100323549-$ or US-20100323548-$ or US-20100304598-$ or US-20100233897-$ or US-20100221939-$ or US-20100194119-$ or US-20100112846-$ or US-20100105238-$).did. or (US-20100029123-$ or US-20090318004-$ or US-20090305548-$ or US-20090291584-$ or US-20090286418-$ or US-20090275246-$ or US-20090239406-$ or US-20090239405-$ or US-20090176399-$ or US-20090099423-$ or US-20090075513-$ or US-20090047820-$ or US-20080311781-$ or US-20080261434-$ or US-20080254669-$ or US-20080248680-$ or US-20080214038-$ or US-20080090426-$ or US-20080056647-$ or US-20080003863-$ or US-20070237472-$ or US-20070237471-$ or US-20070237470-$ or US-20070087614-$ or US-20060252296-$ or US-20060246765-$ or US-20060246764-$).did. or (US-20060110972-$ or US-20060110971-$ or US-20060093285-$ or US-20060089039-$ or US-20060063415-$ or US-20060056774-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060013539-$ or US-20050286838-$ or US-20050259924-$ or US-20050233631-$ or US-20050220426-$ or US-20050215106-$ or US-20050186830-$ or US-20050157987-$ or US-20050141827-$ or US-20050124200-$ or US-20050117855-$ or US-20050095899-$ or US-20050064756-$ or US-20040219819-$ or US-20040137779-$ or US-20040062493-$ or US-20030211771-$ or US-20030194899-$).did. or (US-20030169975-$ or US-20030148651-$ or US-20030063862-$ or US-20030048999-$ or US-20030017739-$ or US-20030012520-$ or US-20020197902-$ or US-

20020177348-$ or US-20020119693-$ or US-20020076968-$ or US-20010021602-$ or US-20010016444-$).did. or (US-9025343-$ or US-8905777-$ or US-8845352-$ or US-8734028-$ or US-8602804-$ or US-8167639-$ or US-8147279-$ or US-8123546-$ or US-8083417-$ or US-8070367-$ or US-8064207-$ or US-8043106-$ or US-8035975-$ or US-7988482-$ or US-7972164-$ or US-7824113-$ or US-7789690-$ or US-7771225-$ or US-7744286-$ or US-7708474-$ or US-7690939-$ or US-7686930-$ or US-7625135-$ or US-7621770-$ or US-7594766-$ or US-7553173-$).did. or (US-7549886-$ or US-7534125-$ or US-7510419-$ or US-7488123-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-7445389-$ or US-7442060-$ or US-7440670-$ or US-7431604-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7381084-$ or US-7367842-$ or US-7350984-$ or US-7326074-$ or US-7267493-$ or US-7241056-$ or US-7192296-$ or US-7052186-$ or US-6997741-$ or US-6986686-$ or US-6953356-$ or US-6916123-$ or US-6878005-$).did. or (US-6857900-$ or US-6855558-$ or US-6851957-$ or US-6821024-$ or US-6793522-$ or US-6789958-$ or US-6702475-$ or US-6638096-$ or US-6634796-$ or US-6623287-$ or US-6595792-$ or US-6592390-$ or US-6570768-$ or US-6551117-$ or US-6547585-$ or US-6494623-$ or US-6491542-$ or US-6476318-$ or US-6454577-$ or US-6422763-$ or US-6409533-$ or US-6394824-$ or US-6383018-$ or US-6364685-$ or US-6352444-$ or US-6350063-$ or US-6332798-$).did. or (US-6328590-$ or US-6276841-$ or US-6254418-$ or US-6196858-$ or US-6179477-$ or US-6174190-$ or US-6123564-$ or US-6077101-$ or US-6050838-$ or US-6012941-$ or US-5971789-$ or US-5964604-$ or US-5926597-$ or US-5882220-$ or US-5862289-$ or US-5848910-$ or US-5848456-$ or US-5833484-$ or US-5803760-$ or US-5740012-$ or US-5675682-$ or US-5639256-$ or US-5632641-$ or US-5630727-$ or US-5613870-$ or US-5609498-$ or US-5570445-$).did. or (US-5556295-$ or US-5504648-$ or US-5480318-$ or US-5382176-$ or US-5380217-$ or US-5380216-$ or US-5368496-$ or US-5366315-$ or US-5352132-$ or US-5342215-$ or US-5338218-$ or US-5324210-$ or US-5308260-$ or US-5174293-$ or US-5169332-$ or US-5151961-$ or US-5120234-$ or US-5104253-$ or US-5069634-$ or US-5062806-$ or US-5051101-$ or US-5011425-$ or US-4975075-$ or US-4973859-$ or US-4969838-$ or US-

		4963103-$ or US-4828510-$).did. or (US-4810200-$ or US-4801275-$ or US-4767347-$ or US-4639061-$ or US-4603936-$ or US-4602839-$ or US-4582378-$ or US-4544225-$ or US-4530556-$ or US-4526433-$ or US-4526431-$ or US-4488764-$ or US-4431244-$ or US-4345122-$ or US-4188086-$ or US-4113179-$ or US-4002389-$ or US-3958852-$ or US-3926497-$ or US-3890028-$ or US-3846737-$ or US-3829821-$ or US-3824552-$ or US-3723944-$ or US-3699498-$).did. or (US-3417365-$ or US-3409859-$ or US-3281758-$ or US-2759159-$ or US-2665341-$ or US-2518464-$ or US-1559361-$ or US-1552346-$).did. or (GB-2166300-$ or EP-45834-$ or EP-26703-$ or DE-3804107-$).did. or (JP-06236780-$ or JP-03084880-$).did. or (WO-2014069395-$ or WO-2013145947-$ or WO-2010038283-$ or WO-2010029647-$ or WO-2009130529-$ or WO-2008100864-$ or US-20160126668-$ or US-20150162709-$ or US-20140193993-$ or US-20140148040-$ or US-20130089995-$ or US-20130045614-$ or US-20120238121-$ or US-20120190230-$ or US-20120088392-$ or US-20120047971-$ or US-20110189883-$ or US-20110189874-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20020081889-$ or US-20020076968-$ or GB-2083296-$ or EP-189979-$ or EP-1333540-$).did. or (DE-202011052551-$ or DE-19959024-$ or DE-102014109024-$ or DE-102014102197-$).did.				
S331	10	(US-20050208822-$ or US-20040161207-$).did. or (US-8480424-$ or US-8388367-$ or US-8317534-$ or US-8277128-$ or US-7466544-$ or US-7377702-$ or US-7204712-$ or US-7130507-$).did.	US-PGPUB; USPAT	OR	OFF	2021/06/14 14:40
S332	45	(US-20160054527-$ or US-20160041349-$ or US-20150253524-$ or US-20140193121-$ or US-20140127930-$ or US-20140023324-$ or US-20130095688-$ or US-20120064754-$ or US-20110268390-$ or US-20110223792-$ or US-20100120274-$ or US-20100098385-$ or US-20070280604-$ or US-20060258201-$ or US-20060118942-$ or US-20040228582-$ or US-20040081395-$ or US-20030059167-$).did. or (US-8814229-$ or US-8506172-$ or US-7993063-$ or US-7500789-$ or US-7349228-$ or US-7349200-$ or US-7317862-$ or US-7182623-$ or US-7040911-$ or US-7033204-$ or US-6994478-$ or US-6966703-$ or US-6945809-$ or US-6746158-$ or US-6434015-$ or US-6398574-$ or US-6093044-$ or US-5387122-$ or US-5288239-$	US-PGPUB; USPAT; EPO; DERWENT	OR	OFF	2021/06/14 14:40

		or US-4911646-$ or US-4557047-$ or US-4136919-$ or US-3951495-$ or US-3917372-$).did. or (GB-2177265-$).did. or (US-6887091-$ or US-20130210261-$).did.				
S333	319	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:40
S334	54	(connector plug) and (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) adj3 (tab tool lever handle clip) with (spring adj1 load$3) and ("385".clas. "439".clas.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:40
S335	2	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S333 not S334 not S332 not S331 not S330 not S329 not S328 not S327 not S326 not S325	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:40
S336	14	(US-20200335910-$ or US-20200303862-$ or US-20200266580-$ or US-20190190199-$).did. or (US-9726361-$ or US-9219333-$ or US-6702603-$ or US-10886679-$ or US-10840640-$).did. or (WO-2019139802-$ or EP-3427346-$ or CN-111239928-$).did. or (JP-2019050100-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	ON	2021/06/14 14:41
S337	13	(US-20190215585-$ or US-20190044281-$ or US-20040023546-$).did. or (US-9726332-$ or US-10541494-$ or US-10454214-$ or US-10228521-$ or US-10158194-$).did. or (JP-5738489-$ or CN-109473834-$ or CN-108701937-$).did. or (US-7318740-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/06/14 14:42
S338	12	(US-20180156988-$ or US-20140235091-$).did. or (US-9726331-$ or US-9011161-$ or US-6722912-$ or US-10270213-$ or US-10096940-$).did. or	US-PGPUB; USPAT; FPRS;	OR	ON	2021/06/14 14:42

		(WO-2017123264-$ or EP-3454428-$ or CN-2596604-$).did. or (EP-3454428-$).did.	DERWENT			
S339	14	(US-20190081438-$ or US-20190052016-$ or US-20180331480-$ or US-20180331476-$ or US-20170229812-$ or US-20170205591-$ or US-20040023544-$).did. or (US-9671072-$ or US-9077110-$ or US-9011172-$ or US-6659790-$).did. or (EP-2756558-$).did. or (US-20170205591-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	OFF	2021/06/14 14:42
S340	24	(US-20140045362-$ or US-20130244472-$).did. or (US-9991620-$ or US-9692176-$ or US-9671071-$ or US-9413106-$ or US-9411111-$ or US-9225110-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9065207-$ or US-8647134-$ or US-8506315-$ or US-8444430-$ or US-7791899-$ or US-7753710-$ or US-7744399-$ or US-6805573-$ or US-6648666-$ or US-6592391-$ or US-10033142-$).did. or (CN-103718392-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/06/14 14:42
S341	158	(US-20180026413-$ or US-20170346231-$ or US-20170302040-$ or US-20170237197-$ or US-20170110832-$ or US-20170062984-$ or US-20170054249-$ or US-20170025791-$ or US-20160211610-$ or US-20160190737-$ or US-20160161681-$ or US-20160116685-$ or US-20160028185-$ or US-20150325950-$ or US-20150280362-$ or US-20150104967-$ or US-20150056832-$ or US-20140179143-$ or US-20140134898-$ or US-20140113480-$ or US-20140094055-$ or US-20140051277-$ or US-20140013593-$ or US-20130288507-$ or US-20130260595-$ or US-20130252448-$).did. or (US-20130210261-$ or US-20130130532-$ or US-20130122745-$ or US-20130045618-$ or US-20130012054-$ or US-20120294571-$ or US-20120058665-$ or US-20120052714-$ or US-20120045923-$ or US-20110312207-$ or US-20110111618-$ or US-20100325324-$ or US-20100248553-$ or US-20100144186-$ or US-20100091467-$ or US-20100091466-$ or US-20100087084-$ or US-20090291578-$ or US-20090220227-$ or US-20090178265-$ or US-20090042431-$ or US-20080267620-$ or US-20080248691-$ or US-20080248676-$ or US-20080064260-$ or US-20070237468-$ or US-20070087623-$).did. or (US-20070059960-$ or US-20060094281-$ or US-20060030192-$ or US-20050208806-$ or US-20050207135-$ or US-20050186824-$ or US-20050158051-$ or US-20040110406-$ or US-20040099072-$).did. or (US-9893457-$ or US-9887489-$ or US-9882309-$ or US-9853397-$ or US-9847598-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; JPO; DERWENT	OR	OFF	2021/06/14 14:42

		9748691-$ or US-9716342-$ or US-9698529-$ or US-9671580-$ or US-9644828-$ or US-9640906-$ or US-9608369-$ or US-9595789-$ or US-9595788-$ or US-9595786-$ or US-9509095-$ or US-9287661-$ or US-9257804-$ or US-9184538-$ or US-9160106-$ or US-9147972-$ or US-9124035-$ or US-9106015-$ or US-9106014-$ or US-9088110-$ or US-9071003-$).did. or (US-8187018-$ or US-7850494-$ or US-7534128-$ or US-7499616-$ or US-7465181-$ or US-7422471-$ or US-7422457-$ or US-7318740-$ or US-7194915-$ or US-7083459-$ or US-6994580-$ or US-6913482-$ or US-6896524-$ or US-6884099-$ or US-6776648-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6623300-$ or US-6589066-$ or US-6358080-$ or US-6045393-$ or US-6019630-$ or US-5997326-$ or US-5727966-$ or US-5664960-$).did. or (US-5645440-$ or US-5613869-$ or US-5571030-$ or US-5547388-$ or US-5538439-$ or US-5409393-$ or US-5350312-$ or US-5330362-$ or US-4681386-$ or US-4624472-$ or US-4586766-$ or US-4550961-$ or US-4458973-$ or US-4172626-$ or US-4113337-$ or US-4074928-$).did. or (US-3209303-$ or US-2748362-$).did. or (WO-2013037123-$ or WO-2012161295-$ or WO-2012107439-$ or GB-2347281-$ or GB-0706471-$ or EP-1267450-$ or DE-3731718-$ or DE-3515175-$ or DE-19723050-$ or CN-103579849-$ or CA-2142080-$).did. or (JP-2016134384-$ or JP-2012243639-$ or JP-2012243638-$).did. or (WO-2015153090-$ or WO-2012107439-$ or US-20160211610-$ or US-20090227139-$ or GB-2159345-$ or FR-2517128-$).did.				
S342	496	(connector plug) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (tab tool lever handle clip) with (latch spring lever catch) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S333 not S334 not S332 not S331	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:42
S343	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2021/06/14 14:42

			T; IBM_TDB			
S344	213	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch hook) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/4284.cpc.) not S343 not S342 not S341 not S340 not S339 not S338 not S337 not S336	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:42
S345	401	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch hook) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,4284.cpc.) not S343 not S342 not S341 not S340 not S339 not S338 not S337 not S336	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 14:44
S346	74	(connector plug) with (tab handle clip) with (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) with (latch spring lever catch hook) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S343 not S342 not S341 not S340 not S339 not S338 not S337 not S336 not S345	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 15:08
S347	21	("5201669" | "5207593" | "5486117" | "5674088" | "5788527" | "5806152" | "5876232" | "6007361" | "6010352").PN. OR ("6343948").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/06/14 15:12
S348	5	(pull adj1 tab and disengage and narrow adj1 width adj3 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/06/14 15:16
S349	91	(US-20210173155-$ or US-20210149120-$ or US-20210141168-$ or US-20210124131-$ or US-20210109292-$ or US-20210088733-$ or US-20210080659-$ or US-20210063649-$ or US-	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:24

		20210026083-$ or US-20200379192-$ or US-20200278503-$ or US-20200257063-$ or US-20190339464-$ or US-20190324218-$ or US-20190285808-$ or US-20190285807-$ or US-20190243072-$ or US-20180341069-$ or US-20180335577-$).did. or (US-11029470-$ or US-11002923-$ or US-10989884-$ or US-10948664-$ or US-10921531-$ or US-10921530-$ or US-10871619-$ or US-10866369-$ or US-10838152-$ or US-10823915-$ or US-10725248-$ or US-10641972-$ or US-10620384-$ or US-10520688-$ or US-10416394-$ or US-10359583-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or (WO-2020264217-$ or WO-2020252355-$ or WO-2020232452-$ or WO-2020219722-$ or WO-2020198755-$ or WO-2020198501-$ or WO-2020181106-$ or WO-2020163683-$ or WO-2020142541-$ or WO-2020118176-$ or WO-2020097621-$ or WO-2020081704-$ or WO-2020055440-$ or WO-2020036992-$ or WO-2020033687-$ or WO-2020010314-$ or WO-2020006356-$ or WO-2019222189-$ or WO-2019183070-$ or WO-2019014659-$ or WO-2018204382-$ or WO-2018111617-$ or GB-2575158-$ or EP-3427346-$ or EP-3408700-$ or EP-3379311-$).did. or (CN-112088327-$ or CN-111258002-$ or CN-111239928-$ or CN-111239919-$ or CN-111158089-$ or CN-111103659-$ or CN-111033339-$ or CN-110579843-$ or CN-110441867-$ or CN-110389412-$ or CN-109752803-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or CA-3095881-$ or AU-2017206806-$).did.				
S350	99	(US-20210018699-$ or US-20200408998-$ or US-20200393630-$ or US-20200386967-$ or US-20200386951-$ or US-20200310048-$ or US-20200310046-$ or US-20200310041-$ or US-20200285000-$ or US-20200278504-$ or US-20200271866-$ or US-20200257060-$ or US-20200218015-$ or US-20200183097-$ or US-20200183093-$ or US-20200174199-$ or US-20200166716-$ or US-20200150353-$ or US-20200142133-$ or US-20200132944-$ or US-20200116957-$ or US-20200116951-$ or US-20200110228-$ or US-20200081201-$ or US-20200081200-$ or US-20200081195-$).did. or (US-20200064564-$ or US-20200049904-$ or US-20200049903-$ or US-20200012050-$ or US-20200003963-$ or US-20190377139-$ or US-20190353855-$ or US-20190353852-$ or US-20190346634-$ or US-	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:24

		20190324215-$ or US-20190310432-$ or US-20190302374-$ or US-20190285806-$ or US-20190271816-$ or US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190064447-$ or US-20190056557-$ or US-20180364422-$ or US-20180356600-$).did. or (US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10877226-$ or US-10712512-$ or US-10712511-$ or US-10678000-$ or US-10444444-$ or US-10409009-$ or US-10295753-$ or US-10197740-$ or US-10158194-$).did. or (WO-2020172661-$ or WO-2020086184-$ or WO-2020056002-$ or WO-2020055439-$ or WO-2019204527-$ or WO-2019191522-$ or WO-2019190616-$ or WO-2019177762-$ or WO-2019038641-$ or WO-2018218153-$ or WO-2018213514-$ or WO-2018140981-$ or WO-2018140873-$ or GB-2574320-$ or DE-102019206527-$ or CN-110658589-$ or CN-110426790-$ or CN-110031939-$ or CN-108701937-$ or CN-108603987-$ or CA-3069706-$ or CA-3049566-$).did.				
S351	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:24
S352	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:24
S353	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:24
S354	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/12/21 22:24
S355	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/12/21 22:24

S356	237	((Kazuyoshi) near2 (Takano)).INV. not S355 not S354 not S353 not S352 not S351 not S350 not S349	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:24
S357	1	((Kazuyoshi) near2 (Takano)).INV. not S355 not S354 not S353 not S352 not S351 not S350 not S349 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:25
S358	16	(US-20210041643-$ or US-20200393629-$ or US-20200333537-$ or US-20200142141-$ or US-20200057206-$ or US-20190341729-$ or US-20170031108-$ or US-20100329625-$ or US-20090285540-$).did. or (US-10107972-$).did. or (KR-20140143351-$ or CN-110308524-$ or AU-2010201115-$ or AU-2005301961-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:26
S359	326	((Kazuyoshi) near2 (Takano)).INV. not S355 not S354 not S353 not S352 not S351 not S350	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S360	15	(US-20200096707-$ or US-20190265418-$ or US-20100284662-$).did. or (US-9829654-$ or US-7471869-$ or US-10539750-$ or US-10488599-$ or US-10396512-$ or US-10330869-$ or US-10078187-$).did. or (MX-2014004053-$ or EP-3084232-$ or EP-1875287-$).did.	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:26
S361	30	(US-20190235184-$ or US-20190235181-$ or US-20190235179-$ or US-20190235178-$ or US-20190219775-$ or US-20190181586-$ or US-20190154930-$ or US-20190154924-$ or US-20190137700-$ or US-20190018201-$ or US-20180335577-$).did. or (US-10359583-$ or US-10295753-$ or US-10228521-$ or US-10191230-$ or US-10185100-$ or US-10146012-$).did. or	US-PGPUB; USPAT; FPRS	OR	ON	2021/12/21 22:26

		(WO-2019038641-$ or WO-2018218153-$ or WO-2018204382-$ or EP-3408700-$ or EP-3379311-$ or CN-109143485-$ or CN-109085678-$ or CN-108693606-$ or CN-108693605-$ or AU-2017206806-$).did.				
S362	28	(US-20190064447-$ or US-20190056557-$ or US-20190018209-$ or US-20180364422-$ or US-20180356600-$ or US-20180341069-$ or US-20180335581-$ or US-20180321447-$ or US-20180292618-$ or US-20180292616-$ or US-20180292612-$ or US-20180267258-$ or US-20180267252-$ or US-20180259717-$ or US-20180128988-$ or US-20170307830-$).did. or (US-9939589-$ or US-10197740-$ or US-10158194-$).did. or (WO-2018140981-$ or WO-2018140873-$ or WO-2018111617-$ or EP-3427346-$ or CN-108701937-$ or CN-108603987-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S363	11	(US-20180217340-$ or US-20180217339-$ or US-20180217338-$ or US-20180156988-$).did. or (US-9989712-$ or US-9977195-$ or US-9927582-$).did. or (WO-2018009426-$ or WO-2017123264-$ or CN-106980157-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S364	11	(US-20180011258-$ or US-20180011254-$ or US-20170219779-$ or US-20170212316-$ or US-20170205591-$ or US-20170205587-$ or US-20170205586-$).did. or (US-9798090-$).did. or (WO-2017131717-$ or WO-2017123831-$ or WO-2017123247-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S365	6	(US-20170139150-$ or US-20170031106-$).did. or (US-9709753-$ or US-9678283-$ or US-9618702-$).did. or (CN-105518503-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S366	6	(US-20160195682-$).did. or (US-9595786-$ or US-9557491-$ or US-9470852-$).did. or (WO-2015191024-$).did. or (JP-2008155098-$).did.	US-PGPUB; USPAT; FPRS; JPO	OR	OFF	2021/12/21 22:26
S367	5	(US-20160178852-$ or US-20160131849-$ or US-20150355417-$ or US-20150331201-$).did. or (US-9274287-$).did.	US-PGPUB; USPAT	OR	OFF	2021/12/21 22:26
S368	366	((Kazuyoshi) near2 (Takano)).INV. not S367 not S366 not S365 not S364 not S363 not S362 not S361	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2021/12/21 22:26

			T; IBM_TDB			
S369	15	(US-9477049-$ or US-7805044-$ or US-7400816-$).did. or (WO-2018004754-$ or KR-20080003433-$ or EP-3475747-$ or EP-3317927-$ or EP-2748898-$ or CN-109001867-$ or CN-106537204-$).did.	USPAT; FPRS	OR	ON	2021/12/21 22:26
S370	25	(US-20180356601-$ or US-20180217340-$ or US-20180217339-$ or US-20180156988-$ or US-20170371109-$ or US-20170045695-$).did. or (US-7627222-$).did. or (WO-2017123264-$ or MX-2007012996-$ or KR-20160102014-$ or EP-3268786-$ or EP-3265860-$ or EP-1875285-$ or CN-107925196-$ or CN-107924032-$ or CN-107407781-$ or CN-107250860-$ or CN-103703631-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S371	422	((Kazuyoshi) near2 (Takano)).INV. not S367 not S366 not S365 not S364 not S363	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S372	25	(US-20180011271-$ or US-20170365962-$ or US-20170351040-$ or US-20170254966-$ or US-20170242199-$ or US-20170205591-$ or US-20160320572-$ or US-20090148120-$).did. or (US-9897766-$ or US-9851522-$ or US-9829653-$ or US-9810858-$ or US-9755382-$ or US-9726831-$ or US-9726830-$ or US-9645323-$ or US-8086085-$ or US-7369741-$).did. or (WO-2017123247-$ or WO-2006113810-$ or CN-105899818-$ or AU-2011378475-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S373	13	(US-20170168256-$ or US-20080013910-$).did. or (US-9658409-$ or US-9268103-$ or US-8465317-$ or US-7489849-$).did. or (WO-2017035212-$ or WO-2016176083-$ or WO-2006113726-$ or CN-101243344-$ or AU-2014366498-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26
S374	20	(US-20170059784-$ or US-20170003458-$ or US-20170003457-$ or US-20080138025-$ or US-20080008437-$).did. or (US-9595786-$ or US-9482825-$ or US-9448369-$ or US-9188747-$ or US-7680388-$).did. or (WO-2017003934-$ or WO-2016148741-$ or WO-2016140710-$ or WO-2015094768-$ or WO-2014182351-$ or WO-2013052070-$ or WO-2012162385-$ or EP-1896887-$ or CA-2604948-$).did.	US-PGPUB; USPAT; FPRS	OR	OFF	2021/12/21 22:26

S375	18	(US-20160266326-$ or US-20160259135-$ or US-20150177467-$ or US-20140334780-$ or US-20140023322-$ or US-20130089995-$ or US-20120301080-$ or US-20090220197-$ or US-20060153517-$ or US-20060093303-$ or US-20060008231-$).did. or (WO-2006138460-$ or EP-3009870-$ or CN-204116649-$ or CN-204116648-$ or AU-2006236409-$).did. or (WO-2006113726-$).did.	US-PGPUB; FPRS; EPO	OR	OFF	2021/12/21 22:26
S376	46	((Jeffrey) near2 (Gniadek)).INV. and connector not S375 not S374 not S373 not S371 not S372 not S370 not S368 not S369 not S359 not S360 not S358 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 22:26
S377	386	(US-20160161681-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160111819-$ or US-20160109661-$ or US-20150357758-$ or US-20150338588-$ or US-20150318641-$ or US-20150288102-$ or US-20150280362-$ or US-20150244109-$ or US-20150236449-$ or US-20150212283-$ or US-20150212282-$ or US-20150171551-$ or US-20150162709-$ or US-20150162704-$ or US-20150147033-$ or US-20150093083-$ or US-20150044898-$ or US-20150030289-$ or US-20150017828-$ or US-20140376864-$ or US-20140364001-$ or US-20140349506-$).did. or (US-20140322948-$ or US-20140286613-$ or US-20140273594-$ or US-20140273585-$ or US-20140235091-$ or US-20140213092-$ or US-20140193993-$ or US-20140179147-$ or US-20140148040-$ or US-20140148032-$ or US-20140127926-$ or US-20140062216-$ or US-20140057474-$ or US-20140029900-$ or US-20130303014-$ or US-20130301993-$ or US-20130288510-$ or US-20130279857-$ or US-20130251314-$ or US-20130244459-$ or US-20130210261-$ or US-20130196530-$ or US-20130183846-$ or US-20130156379-$ or US-20130102182-$ or US-20130102163-$ or US-20130094811-$).did. or (US-20130051738-$ or US-20130040486-$ or US-20130005173-$ or US-20130004131-$ or US-20120329304-$ or US-20120295462-$ or US-20120282796-$ or US-20120251058-$ or US-20120251054-$ or US-20120115348-$ or US-20120088392-$ or US-20120052712-$ or US-20120045922-$ or US-	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2021/12/21 23:07

20110318949-$ or US-20110312207-$ or US-20110306229-$ or US-20110305422-$ or US-20110294328-$ or US-20110293221-$ or US-20110287649-$ or US-20110286702-$ or US-20110268390-$ or US-20110263151-$ or US-20110263150-$ or US-20110263149-$ or US-20110244704-$ or US-20110237113-$).did. or (US-20110201224-$ or US-20110183541-$ or US-20110176773-$ or US-20110070756-$ or US-20110059642-$ or US-20110021057-$ or US-20100328852-$ or US-20100284657-$ or US-20100255708-$ or US-20100220961-$ or US-20100178789-$ or US-20100144187-$ or US-20100144186-$ or US-20100136809-$ or US-20100112845-$ or US-20100105238-$ or US-20100087084-$ or US-20090318007-$ or US-20090318004-$ or US-20090311903-$ or US-20090291584-$ or US-20090239406-$ or US-20090239405-$ or US-20090148106-$ or US-20090117772-$ or US-20090075513-$ or US-20090047818-$).did. or (US-20080311781-$ or US-20080268694-$ or US-20080194135-$ or US-20080194133-$ or US-20080090426-$ or US-20080076290-$ or US-20080057771-$ or US-20070178741-$ or US-20070173099-$ or US-20070087614-$ or US-20070049076-$ or US-20070025665-$ or US-20060189197-$ or US-20060089039-$ or US-20060045435-$ or US-20060029336-$ or US-20060019526-$ or US-20060019525-$ or US-20060013539-$ or US-20050259924-$ or US-20050117855-$ or US-20050095899-$ or US-20030228777-$ or US-20030169975-$ or US-20030109164-$ or US-20030096527-$ or US-20030031431-$).did. or (US-20030008546-$ or US-20020182922-$ or US-20020090855-$ or US-20020019161-$ or US-20020006253-$).did. or (US-9025343-$ or US-8986036-$ or US-8985867-$ or US-8647135-$ or US-8616909-$ or US-8608492-$ or US-8562372-$ or US-8545252-$ or US-8500470-$ or US-8403695-$ or US-8257106-$ or US-8241053-$ or US-8206164-$ or US-8172599-$ or US-8083535-$ or US-8052458-$ or US-8043106-$ or US-8033853-$ or US-7972164-$ or US-7896665-$ or US-7862352-$ or US-7824113-$ or US-7811115-$ or US-7806599-$ or US-7798838-$ or US-7744398-$).did. or (US-7708474-$ or US-7695302-$ or US-7690848-$ or US-7658635-$ or US-7645156-$ or US-7621770-$ or US-7578692-$ or US-7549886-$ or US-7542732-$ or US-7540756-$ or US-7540755-$ or US-7517241-$ or US-7503793-$ or US-7484991-$ or US-7476118-$ or US-7473124-$ or US-7465180-$ or US-

7455545-$ or US-7442060-$ or US-7440670-$ or US-7422481-$ or US-7421181-$ or US-7409136-$ or US-7407410-$ or US-7402070-$ or US-7367842-$ or US-7361045-$).did. or (US-7354292-$ or US-7354291-$ or US-7322845-$ or US-7318740-$ or US-7311544-$ or US-7309250-$ or US-7267493-$ or US-7255587-$ or US-7182524-$ or US-7179110-$ or US-7168972-$ or US-7144266-$ or US-7090509-$ or US-7066759-$ or US-7025636-$ or US-7004780-$ or US-6986686-$ or US-6943661-$ or US-6916196-$ or US-6866535-$ or US-6851867-$ or US-6835086-$ or US-6811422-$ or US-6793516-$ or US-6692306-$ or US-6692284-$ or US-6672898-$).did. or (US-6666698-$ or US-6595792-$ or US-6575759-$ or US-6570768-$ or US-6461176-$ or US-6413104-$ or US-6409392-$ or US-6394850-$ or US-6394842-$ or US-6352444-$ or US-6343948-$ or US-6341972-$ or US-6332798-$ or US-6332784-$ or US-6309247-$ or US-6299362-$ or US-6298190-$ or US-6276839-$ or US-6250817-$ or US-6234823-$ or US-6234683-$ or US-6196858-$ or US-6179627-$ or US-6179477-$ or US-6176729-$ or US-6146181-$ or US-6086263-$).did. or (US-6085006-$ or US-6080002-$ or US-6077101-$ or US-5971789-$ or US-5921799-$ or US-5879194-$ or US-5845036-$ or US-5829999-$ or US-5795175-$ or US-5773332-$ or US-5675682-$ or US-5641298-$ or US-5639254-$ or US-5609498-$ or US-5603631-$ or US-5586903-$ or US-5570445-$ or US-5564939-$ or US-5561727-$ or US-5556295-$ or US-5427543-$ or US-5382176-$ or US-5363460-$ or US-5362249-$ or US-5352132-$ or US-5338218-$ or US-5336103-$).did. or (US-5317485-$ or US-5314345-$ or US-5308260-$ or US-5305380-$ or US-5217384-$ or US-5174293-$ or US-5146525-$ or US-5106312-$ or US-5069634-$ or US-5011422-$ or US-4969838-$ or US-4953940-$ or US-4946248-$ or US-4925396-$ or US-4911646-$ or US-4873614-$ or US-4865557-$ or US-4862500-$ or US-4846708-$ or US-4787860-$ or US-4750898-$ or US-4712861-$ or US-4709975-$ or US-4702537-$ or US-4687271-$ or US-4687270-$ or US-4669797-$).did. or (US-4639061-$ or US-4615575-$ or US-4603931-$ or US-4586766-$ or US-4579410-$ or US-4544216-$ or US-4530556-$ or US-4469386-$ or US-4462656-$ or US-4448470-$ or US-4431244-$ or US-4407556-$ or US-4319733-$ or US-4130330-$ or US-4130329-$ or US-4120553-$ or US-4113179-$ or US-4108522-$ or US-4074928-$ or US-4074341-$ or US-4039237-$ or

		US-3982803-$ or US-3954321-$ or US-3919573-$ or US-3861770-$ or US-3843224-$ or US-3829821-$).did. or (US-3825882-$ or US-3824552-$ or US-3755772-$ or US-3699498-$ or US-3665372-$ or US-3643205-$ or US-3573702-$).did. or (US-3525069-$ or US-3500130-$ or US-3444329-$ or US-3417365-$ or US-3409859-$ or US-3409858-$ or US-3337836-$ or US-3287688-$ or US-3281758-$ or US-3154361-$ or US-3134945-$ or US-3111354-$ or US-3020513-$ or US-3002170-$ or US-2984815-$ or US-2748362-$ or US-2735993-$ or US-2438515-$ or US-2085399-$ or US-1998129-$ or US-1955146-$ or US-1906929-$ or US-1783342-$ or US-1495778-$).did. or (DE-3731718-$ or DE-3725261-$).did. or (JP-03084880-$).did. or (WO-2010125548-$ or WO-2010097603-$ or WO-2010038283-$ or WO-2006053717-$ or WO-0127660-$ or US-5011422-$ or US-20150162709-$ or US-20150093083-$ or US-20140219616-$ or US-20140193993-$ or US-20140148040-$ or US-20130252453-$ or US-20120251054-$ or US-20120190230-$ or US-20120088392-$ or US-20110305422-$ or US-20080311781-$ or US-20060030187-$ or US-20040166711-$ or US-20030108300-$ or US-20020076968-$ or DE-202011052551-$ or DE-102014109024-$ or DE-102013225501-$ or DE-102013208249-$).did.				
S378	118	(duplex near3 connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) and @ad<"20160115" not S377	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:07
S379	15	(US-20160154190-$ or US-20160109661-$ or US-20150212282-$ or US-20110286702-$ or US-20100220961-$ or US-20090148106-$).did. or (US-7824113-$ or US-7708474-$ or US-7703987-$ or US-6672898-$ or US-6409392-$ or US-6250817-$ or US-6085006-$ or US-5675682-$).did. or (DE-102014109024-$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2021/12/21 23:11
S380	7	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.) not S379 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO;	OR	OFF	2021/12/21 23:12

			JPO; DERWENT; IBM_TDB			
S381	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:13
S382	102	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3879,4284.cpc.) not S381	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:13
S383	28	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3879,4284.cpc.) not S381 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:14
S384	33	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,3879,3885,3893.cpc.) not S381 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/21 23:17
S385	185	(US-20160126671-$ or US-20160126667-$ or US-20160104981-$ or US-20160028185-$ or US-20160020555-$ or US-20150364868-$ or US-20150288102-$ or US-20150280362-$ or US-20150236447-$ or US-20150180172-$ or US-20150104967-$ or US-20150037999-$ or US-20150020189-$ or US-20150011111-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; DERWENT	OR	ON	2021/12/22 12:45

20140295684-$ or US-20140295683-$ or US-20140273593-$ or US-20140242818-$ or US-20140235087-$ or US-20140187075-$ or US-20140179143-$ or US-20140162497-$ or US-20140134898-$ or US-20140113508-$ or US-20140094051-$ or US-20140051277-$).did. or (US-20140045362-$ or US-20130303014-$ or US-20130288510-$ or US-20130288507-$ or US-20130280932-$ or US-20130252448-$ or US-20130210261-$ or US-20130196549-$ or US-20130183846-$ or US-20130130532-$ or US-20130094811-$ or US-20120294571-$ or US-20120220147-$ or US-20120108097-$ or US-20120058665-$ or US-20120058652-$ or US-20120052714-$ or US-20120045923-$ or US-20110318950-$ or US-20110312207-$ or US-20110212645-$ or US-20110177710-$ or US-20110111618-$ or US-20110104929-$ or US-20110056723-$ or US-20110014804-$ or US-20100246142-$).did. or (US-20100197159-$ or US-20100144186-$ or US-20100087084-$ or US-20090311903-$ or US-20090149731-$ or US-20090088023-$ or US-20090007399-$ or US-20080248671-$ or US-20070123076-$ or US-20070059953-$ or US-20060134985-$ or US-20060134961-$ or US-20060094281-$ or US-20060030192-$ or US-20050106918-$ or US-20040166711-$ or US-20040161958-$ or US-20040110406-$ or US-20040092150-$ or US-20040077226-$ or US-20040043664-$ or US-20020090855-$ or US-20020076962-$ or US-20020057550-$).did. or (US-9318845-$ or US-9263831-$ or US-9257804-$ or US-9184538-$ or US-8926347-$ or US-7862384-$ or US-7484991-$ or US-7465181-$ or US-7422471-$ or US-7318740-$ or US-7083459-$ or US-7066746-$ or US-6955563-$ or US-6913482-$ or US-6884099-$ or US-6811422-$ or US-6793516-$ or US-6745911-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6589066-$ or US-6579029-$ or US-6533603-$ or US-6439918-$).did. or (US-6406309-$ or US-6394842-$ or US-6371787-$ or US-6358080-$ or US-6332795-$ or US-6283781-$ or US-6045393-$ or US-6030244-$ or US-6019630-$ or US-5873737-$ or US-5857866-$ or US-5823809-$ or US-5795175-$ or US-5751135-$ or US-5727966-$ or US-5676556-$ or US-5645440-$ or US-5616038-$ or US-5613869-$ or US-5575675-$ or US-5575672-$ or US-5571030-$ or US-5538439-$ or US-5474461-$ or US-5435748-$ or US-5409393-$ or US-5350312-$).did. or (US-5217384-$ or US-5104330-$ or US-5074807-$ or

		US-5021003-$ or US-4886462-$ or US-4709975-$ or US-4681386-$ or US-4624472-$ or US-4589716-$ or US-4586766-$ or US-4550961-$ or US-4361375-$ or US-4181386-$ or US-4172626-$ or US-4120553-$ or US-4113337-$ or US-4093332-$ or US-4074928-$ or US-4061407-$ or US-3801757-$).did. or (US-3409858-$ or US-3243659-$ or US-3209303-$ or US-3178674-$ or US-3093773-$ or US-3020513-$ or US-2760174-$ or US-2748362-$ or US-2724094-$).did. or (WO-2014202489-$ or WO-2014168127-$ or WO-2013162590-$ or WO-2013037123-$ or WO-2009130529-$ or JP-H04133370-$ or GB-1039396-$ or EP-2644442-$ or EP-1578183-$ or EP-1017262-$ or EP-0758150-$ or EP-0568018-$ or DE-3731718-$ or DE-3123825-$ or DE-20317563-$ or DE-10222877-$).did. or (WO-2014202489-$).did.				
S386	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/22 12:46
S387	342	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and (H01R13/627,6271,6272,6275,62933.cpc. G02B6/3825,3879,3885,3893.cpc.) not S386 not S385 and @ad<"20160115"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/22 12:46
S388	1	(remote adj1 release and pulled and depressible adj1 latching adj1 arm and optical adj1 fiber adj1 connector).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	AND	OFF	2021/12/22 15:53
S389	0	(17/342220).APP.	USPAT; USOCR	OR	ON	2021/12/22 15:54

S390	50	(US-20180156988-$ or US-20170371109-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160109661-$ or US-20150212283-$ or US-20150212282-$ or US-20150111417-$ or US-20150030289-$ or US-20140056562-$ or US-20130089995-$ or US-20120294571-$ or US-20120237177-$ or US-20120155810-$ or US-20110286702-$ or US-20110081113-$ or US-20100220961-$ or US-20100112845-$ or US-20090275228-$ or US-20090220227-$ or US-20090220200-$ or US-20060189197-$ or US-20030063862-$).did. or (US-9625658-$ or US-9599778-$ or US-9293862-$ or US-9063303-$ or US-9048568-$ or US-8747141-$ or US-8556645-$ or US-7473124-$ or US-7465180-$ or US-7421181-$ or US-7390203-$ or US-7354292-$ or US-7350984-$ or US-7318740-$ or US-7052186-$ or US-6672898-$ or US-6668113-$ or US-6592390-$ or US-6302596-$ or US-6276840-$ or US-5915987-$ or US-5845036-$ or US-5603630-$).did. or (WO-2017123264-$).did. or (US-20120088392-$ or DE-102014109024-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/12/22 17:41
S391	8	S390 and MT	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/22 17:42
S392	1	(15/670161).APP.	USPAT; USOCR	OR	ON	2021/12/22 17:47
S393	6	("9726830").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/22 17:49
S394	14	("20040109646" | "20090176401" | "20130019423" | "5602951" | "5845036" | "6206581" | "6422759" | "8221007").PN. OR ("9726830").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:50
S395	701	LC with MT and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB;	OR	ON	2021/12/22 17:55

			USPAT; USOCR			
S396	0	LC with MT with capacity and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:55
S397	3	LC with MT same capacity and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:56
S398	36	("20030161603" | "20040218885" | "4155159" | "5119547" | "6785460").PN. OR ("7020376").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:57
S399	108	LC with MT same duplex and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 17:58
S400	8	LC with MT near3 ferrule same duplex and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 18:03
S401	52	LC with MT near3 ferrule and ("385".clas. G02B6$.cpc.) and @ad<"20160115" not S400	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/22 18:04
S402	8	"20130022317"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/23 12:39
S403	178	(US-20170184798-$ or US-20170110832-$ or US-20170108430-$ or US-20170025791-$ or US-20160190737-$ or US-20160161688-$ or US-20160161682-$ or US-20160111819-$ or US-20160091670-$ or US-20160062057-$ or US-20150277066-$ or US-20150078710-$ or US-20140133821-$ or US-20140050443-$ or US-20130260595-$ or US-20130244472-$ or US-20130216186-$ or US-20130183001-$ or US-20130156379-$ or US-20120251054-$ or US-20100209050-$ or US-20100136809-$ or US-20090046981-$ or US-20090010600-$ or US-20080273837-$ or US-20080085082-$).did. or	US-PGPUB; USPAT; FPRS; JPO; DERWENT	OR	ON	2021/12/24 13:14

		(US-20070280599-$ or US-20070160327-$ or US-20070025665-$ or US-20060204178-$ or US-20060169856-$ or US-20060093282-$ or US-20050286833-$ or US-20050069262-$ or US-20040218885-$ or US-20040165832-$ or US-20040105625-$ or US-20040091214-$ or US-20040033027-$ or US-20040013388-$ or US-20030165302-$ or US-20030165301-$ or US-20020111067-$ or US-20020076165-$ or US-20020006253-$).did. or (US-9882309-$ or US-9799990-$ or US-9755358-$ or US-9748708-$ or US-9698529-$ or US-9640907-$ or US-9564710-$ or US-9509095-$ or US-9484669-$ or US-9413106-$ or US-9391399-$ or US-9362662-$ or US-9350118-$ or US-9225110-$ or US-9203183-$ or US-9197015-$ or US-9130308-$ or US-9118149-$ or US-9099810-$ or US-9088101-$ or US-9077110-$ or US-9065207-$ or US-9048567-$ or US-9004935-$ or US-8986036-$ or US-8979569-$).did. or (US-8894426-$ or US-8876539-$ or US-8876404-$ or US-8647134-$ or US-8641442-$ or US-8585426-$ or US-8573998-$ or US-8556646-$ or US-8545252-$ or US-8506315-$ or US-8475197-$ or US-8444430-$ or US-8439699-$ or US-8241053-$ or US-8206171-$ or US-8169783-$ or US-8083539-$ or US-8062049-$ or US-8057245-$ or US-8038484-$ or US-7997914-$ or US-7980875-$ or US-7753710-$ or US-7744399-$ or US-7455545-$ or US-7442063-$ or US-7322845-$).did. or (US-7314384-$ or US-7309250-$ or US-7255587-$ or US-7186134-$ or US-6881095-$ or US-6875033-$ or US-6866535-$ or US-6814606-$ or US-6805573-$ or US-6726369-$ or US-6666704-$ or US-6648666-$ or US-6599025-$ or US-6592391-$ or US-6572273-$ or US-6532653-$ or US-6515866-$ or US-6464402-$ or US-6389212-$ or US-6325547-$ or US-6287018-$ or US-6276839-$ or US-6264374-$ or US-6238101-$ or US-6206581-$ or US-6186670-$ or US-6142676-$).did. or (US-6095841-$ or US-6086263-$ or US-6045270-$ or US-5971626-$ or US-5956444-$ or US-5938466-$ or US-5883995-$ or US-5845036-$ or US-5757997-$ or US-5748818-$ or US-5737463-$ or US-5734770-$ or US-5732174-$ or US-5721799-$ or US-5600747-$ or US-5420951-$ or US-5363460-$ or US-5344194-$ or US-5245683-$ or US-5073042-$ or US-4848870-$ or US-4818058-$ or US-4798430-$ or US-4712861-$ or US-4168109-$ or US-4084882-$ or US-3995363-$).did. or (US-3951514-$ or US-10027060-$).did. or (MX-150396-$ or GB-201416966-$ or GB-1500102-$ or EP-2277240-$				

		or EP-0524392-$ or DE-69303217-$ or CN-103718392-$ or BE-649814-$ or AT-394912-$).did. or (JP-2014203722-$ or JP-2012099254-$ or JP-04034876-$).did. or (WO-2015153090-$ or US-7318740-$ or US-20120251054-$ or GB-2159345-$ or EP-1079473-$ or EP-1017262-$ or CA-2726185-$).did.				
S404	185	(US-20160126671-$ or US-20160126667-$ or US-20160104981-$ or US-20160028185-$ or US-20160020555-$ or US-20150364868-$ or US-20150288102-$ or US-20150280362-$ or US-20150236447-$ or US-20150180172-$ or US-20150104967-$ or US-20150037999-$ or US-20150020189-$ or US-20150011111-$ or US-20140295684-$ or US-20140295683-$ or US-20140273593-$ or US-20140242818-$ or US-20140235087-$ or US-20140187075-$ or US-20140179143-$ or US-20140162497-$ or US-20140134898-$ or US-20140113508-$ or US-20140094051-$ or US-20140051277-$).did. or (US-20140045362-$ or US-20130303014-$ or US-20130288510-$ or US-20130288507-$ or US-20130280932-$ or US-20130252448-$ or US-20130210261-$ or US-20130196549-$ or US-20130183846-$ or US-20130130532-$ or US-20130094811-$ or US-20120294571-$ or US-20120220147-$ or US-20120108097-$ or US-20120058665-$ or US-20120058652-$ or US-20120052714-$ or US-20120045923-$ or US-20110318950-$ or US-20110312207-$ or US-20110212645-$ or US-20110177710-$ or US-20110111618-$ or US-20110104929-$ or US-20110056723-$ or US-20110014804-$ or US-20100246142-$).did. or (US-20100197159-$ or US-20100144186-$ or US-20100087084-$ or US-20090311903-$ or US-20090149731-$ or US-20090088023-$ or US-20090007399-$ or US-20080248671-$ or US-20070123076-$ or US-20070059953-$ or US-20060134985-$ or US-20060134961-$ or US-20060094281-$ or US-20060030192-$ or US-20050106918-$ or US-20040166711-$ or US-20040161958-$ or US-20040110406-$ or US-20040092150-$ or US-20040077226-$ or US-20040043664-$ or US-20020090855-$ or US-20020076962-$ or US-20020057550-$).did. or (US-9318845-$ or US-9263831-$ or US-9257804-$ or US-9184538-$ or US-8926347-$ or US-7862384-$ or US-7484991-$ or US-7465181-$ or US-7422471-$ or US-7318740-$ or US-7083459-$ or US-7066746-$ or US-6955563-$ or US-6913482-$ or US-6884099-$ or US-6811422-$ or US-6793516-$ or US-	US-PGPUB; USPAT; USOCR; FPRS; DERWENT	OR	ON	2021/12/24 13:15

		6745911-$ or US-6676430-$ or US-6659791-$ or US-6648665-$ or US-6641425-$ or US-6589066-$ or US-6579029-$ or US-6533603-$ or US-6439918-$).did. or (US-6406309-$ or US-6394842-$ or US-6371787-$ or US-6358080-$ or US-6332795-$ or US-6283781-$ or US-6045393-$ or US-6030244-$ or US-6019630-$ or US-5873737-$ or US-5857866-$ or US-5823809-$ or US-5795175-$ or US-5751135-$ or US-5727966-$ or US-5676556-$ or US-5645440-$ or US-5616038-$ or US-5613869-$ or US-5575675-$ or US-5575672-$ or US-5571030-$ or US-5538439-$ or US-5474461-$ or US-5435748-$ or US-5409393-$ or US-5350312-$).did. or (US-5217384-$ or US-5104330-$ or US-5074807-$ or US-5021003-$ or US-4886462-$ or US-4709975-$ or US-4681386-$ or US-4624472-$ or US-4589716-$ or US-4586766-$ or US-4550961-$ or US-4361375-$ or US-4181386-$ or US-4172626-$ or US-4120553-$ or US-4113337-$ or US-4093332-$ or US-4074928-$ or US-4061407-$ or US-3801757-$).did. or (US-3409858-$ or US-3243659-$ or US-3209303-$ or US-3178674-$ or US-3093773-$ or US-3020513-$ or US-2760174-$ or US-2748362-$ or US-2724094-$).did. or (WO-2014202489-$ or WO-2014168127-$ or WO-2013162590-$ or WO-2013037123-$ or WO-2009130529-$ or JP-H04133370-$ or GB-1039396-$ or EP-2644442-$ or EP-1578183-$ or EP-1017262-$ or EP-0758150-$ or EP-0568018-$ or DE-3731718-$ or DE-3123825-$ or DE-20317563-$ or DE-10222877-$).did. or (WO-2014202489-$).did.				
S405	22	(duplex near3 (connector plug)) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) and (385/76,77,88,92.ccls. 439/133,304,345,346,350,352,353,354,357,358,370.ccls.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/24 13:15
S406	1,680	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) same spring and ("385".clas. "439".clas. H01R$.cpc. G02B6$.cpc.) not S405 not S404 and @ad<"20160115" not S403	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWEN	OR	OFF	2021/12/24 13:15

			T; IBM_TDB			
S407	863	(connector plug) same (remov$3 extract$3 pull$3 (pull adj1 out) releas$3) near5 (tab tool lever handle clip) with spring and ("385".clas. "439".clas. H01R$.cpc. G02B6$.cpc.) not S405 not S404 and @ad<"20160115" not S403	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2021/12/24 13:16
S408	13	("4548455" | "6371787" | "6585537" | "6776646" | "6863556" | "7037129" | "7297013" | "7465180" | "7517241" | "7901237" | "7959455" | "8187018" | "8840419").PN. OR ("9048568").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2021/12/25 20:10
S409	57	(US-20180156988-$ or US-20170371109-$ or US-20160154190-$ or US-20160149341-$ or US-20160116686-$ or US-20160109661-$ or US-20150212283-$ or US-20150212282-$ or US-20150111417-$ or US-20150030289-$ or US-20140219613-$ or US-20140191427-$ or US-20140133810-$ or US-20140133808-$ or US-20140056562-$ or US-20140050443-$ or US-20130089995-$ or US-20120294571-$ or US-20120237177-$ or US-20120155810-$ or US-20110286702-$ or US-20110081113-$ or US-20100220961-$ or US-20100112845-$ or US-20090275228-$ or US-20090220227-$).did. or (US-20090220200-$ or US-20060189197-$ or US-20030063862-$).did. or (US-9625658-$ or US-9599778-$ or US-9293862-$ or US-9063303-$ or US-9048568-$ or US-8747141-$ or US-8556645-$ or US-7959455-$ or US-7473124-$ or US-7465180-$ or US-7421181-$ or US-7390203-$ or US-7354292-$ or US-7350984-$ or US-7318740-$ or US-7297013-$ or US-7052186-$ or US-6672898-$ or US-6668113-$ or US-6592390-$ or US-6302596-$ or US-6276840-$ or US-5915987-$ or US-5845036-$ or US-5603630-$).did. or (WO-2017123264-$).did. or (US-20120088392-$ or DE-102014109024-$).did.	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/12/27 17:05
S410	6	S409 and MT near3 ferrule	US-PGPUB; USPAT; FPRS; DERWENT	OR	ON	2021/12/27 17:06
S411	1	MT near3 ferrule same (latch$3 near3 (arm lever)) with (depress$5 press$5 flexible) and ("385".clas. G02B6$.cpc.) and @ad<"20160115"	US-PGPUB; USPAT;	OR	ON	2021/12/27 17:20

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S412	2	MT near3 ferrule and (latch$3 near3 (arm lever)) with (depress$5 press$5 flexible) and ("385".clas. G02B6$.cpc.) and @ad<"20160115" not S411	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/27 17:22
S413	40	MT near3 ferrule and (latch$3 near3 (arm lever)) and ("385".clas. G02B6$.cpc.) and @ad<"20160115" not S411 not S412	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2021/12/27 17:24

3/31/2022 6:34:57 PM
C:\Users\rtavlykaev\Documents\EAST\Workspaces\17494291.wsp

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
17/494,291	10/05/2021	2896	930	S03623USCON4	22	2

CONFIRMATION NO. 3410

CORRECTED FILING RECEIPT

152878
Senko Advanced Components, Inc.
450 Donald Lynch Blvd
Unit D
Marlborough, MA 01752

OC000000133802592

Date Mailed: 05/12/2022

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Kazuyoshi TAKANO, Tokyo, JAPAN;
Jeffrey GNIADEK, Oxford, ME;

Applicant(s)

Senko Advanced Components Inc., Marlborough, MA;

Power of Attorney: The patent practitioners associated with Customer Number 152878

Domestic Priority data as claimed by applicant

This application is a CON of 16/695,901 11/26/2019 PAT 11152748
which is a CON of 16/213,244 12/07/2018 PAT 10520690 *
which is a CON of 15/044,838 02/16/2016 PAT 10158194
which is a CIP of 14/996,865 01/15/2016 PAT 9595786
(*)Data provided by applicant is not consistent with PTO records.

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 10/18/2021

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 17/494,291**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

Preliminary Class

385

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

152878 7590 04/12/2022

Senko Advanced Components, Inc.
~~450 Donald Lynch Blvd~~
~~Unit D~~
Marlborough, MA 01752

2 Cabot Road
Suite 103
Hudson, MA 01749

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	10/05/2021	Kazuyoshi TAKANO	S03623USCON4	3410

TITLE OF INVENTION: NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	$600	$0.00	$0.00	$600	07/12/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
TAVLYKAEV, ROBERT FUATOVICH	2896	385-076000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: Senko Advanced Components, Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): 2 Cabot Road, Suite 103, Hudson, MA 01749

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Kurt F. James/ Date July 10, 2022

Typed or printed name Kurt F. James Registration No. 33,716

Electronic Patent Application Fee Transmittal

Application Number:	17494291
Filing Date:	05-Oct-2021
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Filer:	Kurt F. James/Michael Moores
Attorney Docket Number:	S03623USCON4

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	2501	1	600	600

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**600**

Electronic Acknowledgement Receipt

EFS ID:	46154182
Application Number:	17494291
International Application Number:	
Confirmation Number:	3410
Title of Invention:	NARROW WIDTH ADAPTERS AND CONNECTORS WITH PULL TAB RELEASE
First Named Inventor/Applicant Name:	Kazuyoshi TAKANO
Customer Number:	152878
Filer:	Kurt F. James/Michael Moores
Filer Authorized By:	Kurt F. James
Attorney Docket Number:	S03623USCON4
Receipt Date:	11-JUL-2022
Filing Date:	05-OCT-2021
Time Stamp:	10:54:21
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$600
RAM confirmation Number	E20227AA55184297
Deposit Account	
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	S03623USCON4_IF_TRANSMITTAL.pdf	122560 6e4a2803057e502c79a2bf5dbaa0324322c70dc5	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	37956 591ed6918eae80da4ef4cd83459fa2193de9fd09	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	160516		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/494,291	08/16/2022	11415760	S03623USCON4	3410

152878 7590 07/27/2022

Senko Advanced Components, Inc.
2 Cabot Road
Suite 103
Hudson, MA 01749

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PAIR WEB site http://pair.uspto.gov for additional inventors):

Kazuyoshi TAKANO, Tokyo, JAPAN;
Jeffrey GNIADEK, Oxford, ME;

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Senko Advanced Components Inc., Marlborough, MA;

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