

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

REOLINK INNOVATION INC. and
SHENZHEN REOLINK TECHNOLOGY CO., LTD.,
Petitioner,

v.

THROUGHTTEK CO., LTD.,
Patent Owner.

IPR2024-00509
Patent RE47,842 E

Before MICHAEL J. STRAUSS, DAVID C. McKONE, and
SHEILA F. McSHANE, *Administrative Patent Judges*.

STRAUSS, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

Reolink Innovation Inc. and Shenzhen Reolink Technology Co., Ltd. (collectively, “Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–4 and 6–19 (the “challenged claims”) of U.S. Patent No. RE47,842 E (Ex. 1002, “the ’842 patent”). Throughtek Co., Ltd. (“Patent Owner”) did not file a preliminary response to the Petition. *See* Paper 3, 1.

On August 9, 2024, the Board instituted an *inter partes* review of the challenged claims pursuant to 35 U.S.C. § 314. Paper 6 (“Dec.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 11, “PO Resp.”), along with the Declarations of Dr. Yen-Kuang Chen (Ex. 2004) and Yu-Li Kao (Ex. 2005). Petitioner filed a Reply (Paper 32, “Pet. Reply”) and Patent Owner filed a Sur-reply (Paper 34, “PO Sur-reply”).

The parties presented oral arguments at a hearing on May 12, 2025, and a transcript of it has been entered into the record (Paper 39, “Tr.”).

A. Real Parties-in-Interest

Petitioner identifies itself, Reolink Innovation Inc., and Shenzhen Reolink Technology Co., Ltd., as the real parties-in-interest. Pet. 73. Patent Owner identifies itself, Throughtek Co., Ltd., as the real party-in-interest. Paper 4, 2.

B. Related Matters

Petitioner states “[t]he ’842 patent is the subject of [a] civil action [in the United States District Court of Delaware] captioned *ThroughTEK Co., Ltd. v. Reolink Innovation Inc.*, Case No. 1-23-cv-00218 (DDE).” Pet. 73.

Patent Owner identifies the same district court action as a related matter. Paper 4, 2. In that action, the District Court granted a Motion to Dismiss, finding that claims 1–4 and 6–19 of the ’842 patent are directed to patent-ineligible subject matter under 35 U.S.C. § 101. *ThroughTEK Co. v. Reolink Innovation Inc.*, No. CV 23-218-GBW, 2024 WL 1701841 (D. Del. Apr. 19, 2024). The District Court’s decision is currently on appeal to the Federal Circuit. *ThroughTEK Co., Ltd. v. Reolink Innovation Inc.*, Federal Circuit Docket No. 2024-1773 (May 3, 2024).

Petitioner further states the ’842 patent was also asserted in different districts against different defendants:

- *ThroughTEK Co., Ltd. v. Amcrest Technologies LLC*, Case No. 2-23-cv-00035 (E.D. Tex.); and
- *Throughtek Co Ltd v. Anker Innovations Co Ltd*, Case No. 2-23-cv-00515 (W.D. Wash.)

Pet. 73. Petitioner further states “[a]t least the WDWA litigation was terminated, and the docket of the EDTX litigation reveals an early posture (e.g., no *Markman* briefing, no depositions or expert discovery).” *Id.* at 74.

C. The ’842 Patent

The ’842 patent is titled “System and Method of Identifying Networked Device for Establishing a P2P Connection” and issued on February 4, 2020. The ’842 Patent is a reissue of U.S. Patent No. 9,787,498 issued October 10, 2017, maturing from U.S. Patent Application 13/950,281 filed July 25, 2013. Ex. 1002, codes (22), (64). The ’842 patent claims priority to Provisional Application 61/812,262 filed April 16, 2013 (“the ’262 Provisional”). *Id.*, code (60).

The ’842 patent is directed to establishing a point to point (P2P) network connection between a terminal device (e.g., cell phone) and a

networked device (e.g., a webcam). Ex. 1002, 1:33–35, 2:4–6, 4:28–30. “[T]he networked device[] has an identification code (ID) and automatically connects to [a] management server and registers the identification code (ID) of the networked device in the management server.” *Id.* at 1:45–49. To establish a P2P connection between the networked device (e.g., webcam) and the terminal device (e.g., cell phone), “the terminal device can make a request to the management server to provide addressing information of a linking sever for connecting to the networked device by inputting the identification code (ID) of the networked device.” *Id.* at 1:49–54. To simplify input of a lengthy ID by the requesting terminal device (e.g., cellphone), the networked device (e.g., webcam) includes a barcode (e.g., quick response or “QR” code) corresponding to the networked device’s ID (*id.* at 2:14–16) and “[t]he terminal device includes an image capture unit which captures the barcode of the networked device for generating a connection request signal corresponding to the barcode” (*id.* at 2:17–19). In response to receiving a connection request and ID from the terminal device, “the network server identifies the networked device from [a] list of networked devices corresponding to the connection request signal and notifies the networked device that the terminal device is requesting to make a connection therewith.” *Id.* at 2:22–25. A P2P connection is then established between the terminal device (e.g., cell phone) and the networked device (e.g., webcam). *Id.* at 2:27–29.

D. Illustrative Claim

Petitioner challenges claims 1–4 and 6–19 of the ’842 patent. Apparatus claim 1 and method claim 12 are independent claims. Claims 2–4 and 6–9 depend directly or indirectly from independent claim 1 and

claims 13–19 depend directly or indirectly from independent claim 12. Claim 1, which is illustrative, is reproduced below, with bracketed designations added to claim limitations for reference purposes. *See* Pet. viii–ix.

[1.P] A system to identify a networked device for establishing a point-to[-]point (P2P) connection, the system comprising

[1.1] a network server having a list of networked devices that are pre-registered in the network server, wherein the network server associates a corresponding identification of each networked device with a corresponding IP address of the networked device for enabling terminal devices to establish P2P connections with the plurality of networked devices;

[1.2] a first networked monitoring device, having a first identification embedded in the first networked monitoring device, wherein the first networked monitoring device registers the embedded first identification into the list of networked devices to associate a corresponding IP address of the first networked monitoring device with the first identification by connecting to the network server through the Internet;

[1.3] an image pattern, being attached on the first networked monitoring device and comprising the first identification for establishing a P2P connection with the first networked monitoring device; and

[1.4] a terminal device, wherein the terminal device generates a connection request signal when the image pattern is captured to the terminal device; and the terminal device transmits the connection request signal to the network server through the Internet,

[1.5] wherein the network server obtains the first identification according to the connection request signal and obtains the corresponding IP address of the first networked monitoring device according to the obtained first identification for establishing a P2P connection between the terminal device and the first networked monitoring device, wherein the network server respectively transmits hole-punching messages to the terminal device and the first networked monitoring device via the

Internet to establish the P2P connection, and
[1.6] wherein the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection between the terminal device and the first networked monitoring device.

Ex. 1001, 36:24–42.

Independent claim 12 is similar to claim 1, but written in the form of a method claim instead of an apparatus claim. *Compare* Ex. 1002, 9:7–47, *with id.* at 10:18–58.

E. Evidence and Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–4 and 6–19 of the ’842 patent are unpatentable based on the following grounds:

Claim(s) Challenged	35 U.S.C §	Reference(s)/Basis
1–3, 6, 10, 12–14, 17, 18	103 ¹	Lorex Guide, ² Kim ³
1–3, 6, 10, 12–14, 17, 18	103	Kim, Lorex Video ⁴

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, and was effective on March 16, 2013. Because the ’842 patent has an effective filing date after the effective date of the applicable AIA amendments, we refer to the post-AIA version of 35 U.S.C. § 103. *See* Ex. 1002, codes (60), (64).

² Lorex LNC100 Series User’s Guide Version 2.0 (2012), *available at* https://www.lorextechnology.com/downloads/ipcameras/LNC104/LNC100_SERIES_MANUAL_EN_R2_web.pdf (Ex.1006, “the Lorex Guide”).

³ US 2011/0082941 A1, published December 25, 2008 (Ex. 1007, “Kim”).

⁴ Lorex Technology Inc., “How-to Set Up and Connect the NEW Lorex LNC100 Series IP Network Camera” (Oct. 19, 2012), *available at* <https://www.youtube.com/watch?v=DPaIWj2f65I> (Ex. 1008, “the Lorex Video”).

Claim(s) Challenged	35 U.S.C §	Reference(s)/Basis
1–4, 6–19	103	Throughtek-2012, ⁵ Lorex Video

Pet. 1. Petitioner also relies on the Declaration of Harry Bims, Ph.D. (Ex. 1001).

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Relying on the testimony of Dr. Bims, Petitioner proposes that a person of ordinary skill in the art at the time of the '842 patent would have been a person having a bachelor's degree in electrical engineering and two years of work experience with network and communication technologies. Pet. 11 (citing Ex. 1001 ¶¶ 15–16). Patent Owner does not provide any proposed qualifications for a person of ordinary skill in the art.

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). The level of ordinary skill in the art is also reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). We adopt the assessment offered by Petitioner as it is consistent with the '842 patent and the asserted prior art.

⁵ Certified English translation of German Utility Model No. DE202012101164U1 (June 6, 2012) (Ex. 1017, “Throughtek-2012”).

B. Claim Construction

In this *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b) (2021). Under the principles set forth by our reviewing court, the “words of a claim ‘are generally given their ordinary and customary meaning,’” as would be understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). “In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence.” *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17).

Petitioner asserts “no claim elements need a formal construction for purposes of resolving the controversy in this proceeding.” Pet. 11 (citing Ex. 1001 ¶ 55; *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011); *Google Inc. v. Intellectual Ventures II LLC*, 701 Fed. Appx. 946, 956 (Fed. Cir. 2017)). Petitioner states “[a]ll claim terms should be construed according to the *Phillips* standard.” *Id.* (citing *Phillips*, 415 F.3d at 1303; 37 C.F.R. §42.100).

Patent Owner presents no proposed claim constructions.

We determine that we need not expressly construe any claim terms to resolve the parties’ disputes on the current record. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017)

("[W]e need only construe terms 'that are in controversy, and only to the extent necessary to resolve the controversy.'") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

C. Principles of Law

A patent claim is unpatentable under 35 U.S.C. § 103 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 date of the claimed invention to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103 (2018); *see also KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when in evidence, objective indicia of nonobviousness. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

D. Asserted Obviousness of Claims 1–3, 6, 10, 12–14, 17, and 18 Over Lorex Guide and Kim ("Ground 1")

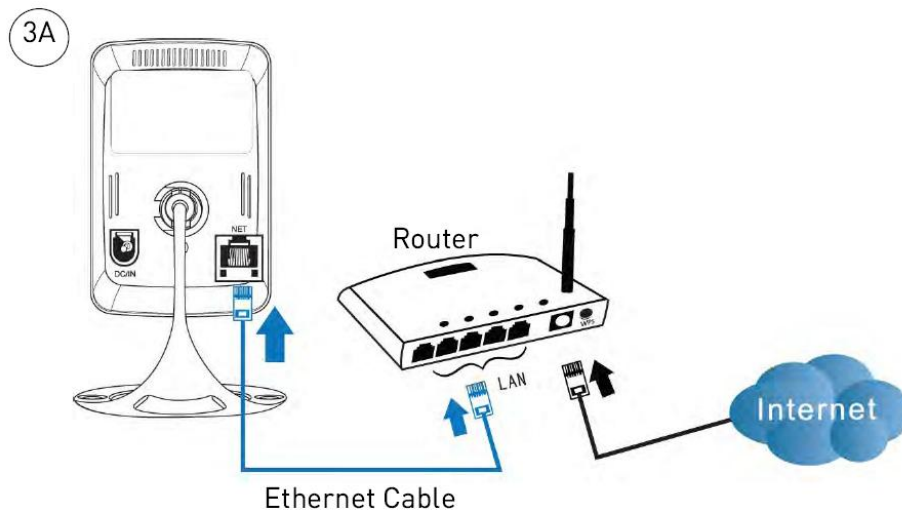
Petitioner contends that claims 1–3, 6, 10, 12–14, 17, and 18 are unpatentable under 35 U.S.C. § 103(a) as obvious over the combination of the Lorex Guide and Kim. Pet. 16–36 ("Ground 1"). In support, Petitioner also relies upon the Bims Declaration. Ex. 1001.

Patent Owner does not argue a failure of the combination to teach claim 1, arguing instead that "the *Lorex Guide* reference does not qualify as prior art under 35 U.S.C. §102(a)(1)" and that secondary considerations/objective indicia show the non-obviousness of the combination. PO Resp. 1, 5.

We begin our discussion with brief summaries of the Lorex Guide and Kim, and then address the evidence and arguments presented.

1. Lorex Guide (Ex. 1006)

The Lorex Guide is a user's guide for the Lorex-branded LNC100 series of wireless network camera models that describes the camera's features, technical specifications, system requirements, setup, configuration, and operation. Ex. 1006, 1, 7, 11–15. The Lorex Guide discloses that a user connects to the camera using Lorex software installed on a computer (e.g., PC, MAC), tablet (e.g., iPad), or smartphone (e.g., iPhone, Android device). *Id.* at 5–20. The Lorex Guide instructs a user to first connect the camera to the user's local network (LAN) router using an Ethernet cable, with the router providing network connectivity to the Internet as shown in the corresponding figure reproduced below. *Id.* at 4.

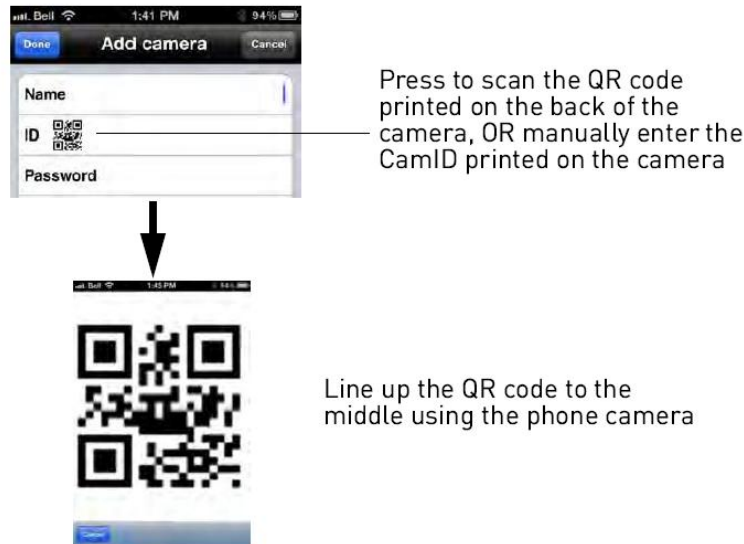


The figure above depicts a webcam connected to a LAN port of an Internet-connecting router. Ex.1006, 4.

According to one configuration that uses the Lorex Ping iPhone application software installed on an iPhone, a camera is connected to the network by scanning a “a code printed on the back of the camera using the

camera on the phone.” *Id.* at 13. Scanning the QR code automatically enters the CamID as an alternative to “[m]anually enter[ing] the CamID printed on the camera” as depicted below. *Id.*

5. Under **ID**, press the QR code button () and line up the QR code printed on the back of the camera using the camera on the phone. The CamID will automatically be entered.



- **OR:** Manually enter the **CamID** printed on the camera.

The figure above depicts a screen shot of a Lorex Ping App running on an iPhone for scanning a QR code printed on the back of a webcam.
Ex. 1006, 13.

The user is then instructed to “[t]ap the name of the camera in the Camera List [of the Lorex Ping iPhone application] to connect [the iPhone] to the camera.” *Id.* at 14.

2. Kim (Ex. 1007)

Kim describes establishing a peer-to-peer connection between network devices or nodes, such as a smart phone and a video camera, using TCP or UDP hole punching to establish a direct tunnel between peer nodes. Ex. 1007 ¶¶ 52, 66, 69. Kim further describes a network server that stores a

node’s “virtual address, a network address, and a network connection type on an ID basis” as shown in Figure 5 reproduced below. *Id.* ¶ 75.

FIG. 5

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ID	Virtual address			Network address		NAT address		Network connection type
	Virtual IP	Network prefix	prefix length	IP	Port	IP	Port	
Abc@xyz.com	x.x.x.x	-	-	192.168.1.2	1000	100.1.1.2	1024	NAT-Full Cone
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
def@zyx.com	y.y.y.y	1.1.2.0	24	192.168.2.2	2000	200.1.1.2	2024	NAT-Restricted Cone

The table above depicts server “mapping to an ID (abc@xyz.com, def@zyx.com) of a peer node, a virtual address, a network address, a NAT [Network Address Translation] address, and a network connection type.”

Ex. 1007 ¶ 75.

3. *Whether the Lorex Guide is Prior Art Under 35 U.S.C. § 102(a)(1)*

Ground 1 of the Petition alleges that the combination of Lorex Guide and Kim teaches all the limitations of claim 1, and that there is a rationale to combine the references. Pet. 16–49. As a preliminary matter, the parties disagree about whether certain disclosures in the Lorex Guide are prior art under 35 U.S.C. § 102(a)(1) to the ’842 patent.

The Petition alleges that “[a]ll Grounds 1–3 rely on publications that were published well before the April 16, 2013 filing date of the ’842 patent’s provisional application, and thus qualify as prior art under 35 U.S.C.

§ 102(a)(1).” Pet. 1. In particular, Petitioner alleges the Lorex Guide was

published in 2012. *Id.* at 2 (citing Ex. 1006, 177 (dated “2012”); Ex. 1011 ¶¶ 5–9 (sworn testimony [of Vlad Karashov, former Director of Engineering & Product Development at Lorex Technology, Inc.] confirming the public dissemination of the Lorex Guide throughout 2012). Petitioner further alleges “[t]o the extent Patent Owner contends that . . . any of the . . . cited publications[] is not prior art due to an exception in § 102(b)(1), Petitioners note[] that the ’842 patent is not entitled to the filing date of its provisional application because the provisional application is noticeably silent regarding the negative limitation (Elements [1.6] and [12.6]) amended into all claims of the ’842 patent on September 20, 2016.” Pet. 2. Petitioner further alleges that “the Lorex disclosures^[6] were not obtained from any inventor listed on the ’842 patent.” *Id.* at 4 (citing Ex. 10011 ¶ 13). Thus, Petitioner has satisfied its initial burden of production of evidence on this issue, shifting the burden of production to Patent Owner to argue or produce evidence that the Lorex Guide (and, in connection with Ground 2 discussed below, the Lorex Video) is not prior art. *Dynamic Drinkware, LLC v. National Graphics, Inc.*, 800 F.3d 1375, 1379 (Fed. Cir. 2015) (stating that once the petitioner meets its initial burden of going forward with evidence that there is anticipating prior art, the patent owner has “the burden of going forward with evidence either that the prior art does not actually anticipate, or . . . that it is not prior art” (quoting *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008))). Notably, the burden of persuasion on the

⁶ Petitioner’s reference to the “Lorex disclosures” is understood to encompass both the Lorex Guide (Ex. 1006) and Lorex Video (Ex. 1008).

ultimate issue of the status of the Lorex Guide as prior art remains with Petitioner. *Id.* at 1378–80.

As the Federal Circuit stated in *Dynamic Drinkware*, the burden of persuasion is on the petitioner to prove “unpatentability by a preponderance of the evidence,” 35 U.S.C. § 316(e), and that burden never shifts to the patentee.

* * *

A second and distinct burden, the burden of production, or the burden of going forward with evidence, is a shifting burden, “the allocation of which depends on where in the process of trial the issue arises.” The burden of production may entail “producing additional evidence and presenting persuasive argument based on new evidence or evidence already of record.”

Id. (citations omitted).

a. Legal Background

35 U.S.C. § 102(a)(1) defines the prior art that will preclude the grant of a patent on a claimed invention and states:

[a] person shall be entitled to a patent unless—

(1) the claimed invention was patented, described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.

Section 102(b)(1) provides two exceptions to § 102(a)(1) for disclosures made within one year of the effective filing date. Specifically, 35 U.S.C. § 102(b)(1) provides that a disclosure made one year or less before the effective filing date of a claimed invention shall not be prior art under 35 U.S.C. § 102(a)(1) with respect to the claimed invention if: (A) the disclosure was made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor

or a joint inventor; or (B) the subject matter disclosed had, before such disclosure, been publicly disclosed by the inventor or a joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor. 35 U.S.C. § 102(b)(1).

As discussed above, with regard to establishing unpatentability, a petitioner retains the burden of persuasion throughout the proceeding. *See Dynamic Drinkware*, 800 F.3d at 1378. However, with regard to specific evidence supporting the unpatentability challenge, such as the priority date of a reference used to establish obviousness, a petitioner shifts the burden of production to dispute the effective priority date of a prior art reference to the patent owner by alleging obviousness based upon a reference that appears to be prior art on its face. *Id.* at 1379–80 (burden of production satisfied by assertion of anticipation, shifting burden to patent owner); *see also Pfizer, Inc. v. Genentech, Inc.*, IPR2017-01488, Paper 27 at 13 (PTAB Dec. 1, 2017) (initial burden met where prior-art patents “predate the earliest possible priority date shown on the face of the” challenged patent).

b. Patent Owner’s Arguments

Patent Owner contends the Lorex Guide reference, which was “published . . . less than one year prior to the effective filing date of the ’842 patent, . . . is not prior art under the §102(a) based on the §102(b) exception since the subject matter disclosed therein is obtained directly or indirectly from the inventor (Patent Owner) as evidenced by the

Agreement^[7] between [Patent Owner] ThroughTek and Lorex.” PO Resp. 4.
Patent Owner asserts

The Agreement specifically states that [Patent Owner] ThroughTek is the owner of all right, title and interest in and to the asse[its more particularly described on Schedule A, which specifically states that [Patent Owner] ThroughTek provides “a connection platform based on P2P (Point to Point) network connection architecture and advanced Cloud computing technology via API (Application Programming Interface) for cross-platform connection to build up the connection between different devices an across different operation systems.”

PO Resp. 4 (citing Ex. 2001, 1, 7). Patent Owner argues, pursuant to the Agreement, it was Patent Owners’ disclosure of “its complete P2P solution that included the subject matter in the ’842 patent” that was incorporated into the Lorex Guide. *Id.* (citing Ex. 2005 ¶ 10). According to Patent Owner, “[i]n essence, the Agreement provides that the P2P protocol along with image processing feature disclosed in the *Lorex Guide* reference is developed by ThroughTek, and that the product featured in the *Lorex Guide* reference is manufactured by a third party, and sold under brand names associated with Lorex.” *Id.* at 4–5 (citing Ex. 2001, 1–7).

c. Petitioner’s Reply

Petitioner responds that Patent Owner has failed to meet its burden of production to establish the prerequisites of § 102(b)(1), namely to show the Lorex’s Guide disclosure relied upon in the Petition was communicated by a specific ThroughTek inventor of the ’842 patent to Lorex. Pet. Reply 3.

⁷ “[T]he Agreement” is titled “Exclusivity Agreement” and concerns a Joint Venture Partnership between Lorex Corporation and Throughtek Co., Ltd. . See Ex. 2001, 1.

Petitioner argues the Agreement (1) has “nothing to do with the QR code on the back of Lorex’s LNC100 Series cameras,” (2) only addresses what will be developed in the future, not what had been developed at the time of the agreement, and (3) was executed on October 11, 2012, *after* the September 12, 2012, publication date of the Lorex Guide. *Id.* at 2–15.

Under the heading “The ‘Subject Matter’ Shortcoming,” Petitioner argues that Patent Owner’s Agreement with Lorex addresses subject matter other than subject matter relied upon in the Petition and asserted by Patent Owner to have been communicated by an inventor of the ’842 Patent to Lorex. Pet. Reply 5. In particular, Petitioner argues:

[T]he text of the Agreement indicates that the subject matter was centered upon ThroughTek’s Assets for “Cloud Connectivity Services,” and specifically that ThroughTek “will develop” in the future some type of “connectivity services with a connection platform based on P2P (Point to Point) network connection architecture and Cloud computing technology.” EX2001, 7. But the Petition does **not** rely on [the] Lorex Guide or Lorex Video for any disclosure related to cloud connectivity or establishing P2P connections (e.g., conventional hole-punching technique). Rather, the Petition plainly cites to disclosures **of Kim** (EX1007) in Grounds 1–2 for all claim elements related to hole-punching/network connectivity via a server. Fatally, PO never alleges that the disclosure **of Kim** was somehow obtained from ThroughTek. It was not.

Pet. Reply 5–6 (footnote omitted). According to Petitioner:

Nothing in [the] Agreement nor in [named inventor,] Mr. Kao’s testimony actually establishes that “the subject matter disclosed” in each of [the] Lorex Guide and Lorex Video—e.g., the images and video detailing the conventional use of a QR code on the back of the Lorex camera (see Pet., pp. 23–25, 43–46, 61–62)—was communicated from Mr. Kao or any other purported inventor. Indeed, Mr. Kao conceded that [Patent Owner] ThroughTek was “not involve[d] in any Lorex

publications.” EX2005, ¶ 11; EX1103, 71:11–72:13 (“never drafted or prepared any portion”); *see also* EX1101, ¶¶6–8, 20, 22. For this reason alone, PO’s reach for the §102(b)(1)(A) exception falls short.

Id. at 7.

Under the heading “The Temporal Impossibility,” Petitioner argues, because the Lorex Guide was published prior to the October 11, 2012, meeting and because the Agreement resulting from the meeting addressed future efforts, these later occurring events do not and cannot evidence a communication of subject matter incorporated into the earlier published Lorex Guide. Pet. Reply 8. In particular, Petitioner asserts:

PO’s reach for the §102(b)(1)(A) exception also suffers from a temporal impossibility. Namely, the timeline indicated by the Agreement actually shows why the §102(b)(1)(A) exception should *not* apply. As noted above, the Agreement was purported executed by Lorex on October 11, 2012 during an introductory meeting with representatives from Lorex. EX2001, 6; EX2005, ¶9; EX1101, ¶18. Noticeably, however, ***neither party executed the Agreement before the publication date of [the] Lorex Guide, which even PO concedes occurred no later than September 12, 2012.*** POR, 4 (conceding [the] Lorex Guide “was published on September 12, 2012” and citing to EX1006, 3 (“SEP 12 2012”)); EX1101, ¶¶5–10. Based on this record, there is no dispute that the Lorex Guide was published before the October 11, 2012 introductory meeting and Agreement executed later that day.

Id. at 8.

d. Patent Owner’s Sur-reply

Patent Owner replies, asserting “[t]he disclosure by ThroughTek pursuant to the Agreement was its complete P2P solution that included the subject matter in the ‘842 patent.” Sur. Reply 4 (citing Ex. 2005 ¶ 10). Addressing the timing issue, Patent Owner asserts “[a]lthough the execution

of the Exclusive Agreement was initiated at 9/18/2012, the actual technical collaboration started far before in order to facilitate and solidify the cooperation.” *Id.* at 5. Patent Owner further appears to question the credibility of statements made in Mr. Kardashov’s second declaration (Exhibit 1101) responding to Patent Owner’s Response and to Mr. Kao’s declaration (Exhibit 2005). *See* Sur. Reply 5. In particular, Patent Owner argues that there would have been no reason to seek ThroughTek’s technical solution pursuant to the September 2012 Agreement if, as asserted by Mr. Kardashov, Lorex had already acquired a complete technical solution from StarVedia Technology to implementing the LNC100 Series IP Camera and Lorex Ping app in Q1 of 2012. *Id.* That is, according to Patent Owner, “why would Mr. Kardashov’s direct supervisor Mr. Worndl . . . bring Mr. Kardashov to visit ThroughTek and execute[] the Exclusive Agreement if this so called StarVedia had completed the needed technical solution?” *Id.* Patent Owner further appears to find it suspicious that “Mr. Kardashov [would] still [be] in possession of any Lorex confidential information [relied upon in his declaration] years after his employment termination at Lorex.” *Id.* at 5–6.

e. Priority of the Challenged Claims

We first address Petitioner’s argument that the effective filing date of the ’842 Patent is no earlier than September 20, 2016.

For a claim in a later-filed application to be entitled to the filing date of an earlier application, the earlier application must provide written description support for the claimed subject matter. *Anascope, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333, 1337 (Fed. Cir. 2010). The written description inquiry is a question of fact, context-specific, and determined on

a case-by-case basis. *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc).

The test for sufficiency of support is whether the disclosure of the application relied upon “reasonably conveys to the artisan that the inventor had possession at that time of the later claimed subject matter.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991). “One shows that one is ‘in possession’ of *the invention* by describing *the invention*, with all its claimed limitations.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). In some instances, a patentee can rely on information that is well known in the art to satisfy the written description requirement. *Ariad Pharm.*, 598 F.3d at 1351 (“[T]he level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.”).

In addition, “[n]egative claim limitations are adequately supported when the specification describes a reason to exclude the relevant limitation. Such written description support need not rise to the level of disclaimer.” *Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012). A reason to exclude an element may be found in “statements in the specification expressly listing the disadvantages of using” that element. *Santarus*, 694 F.3d at 1351. Another reason to exclude may be when the specification “distinguishes among” the element and alternatives to it. *Inphi Corp. v. Netlist, Inc.*, 805 F.3d 1350, 1357 (Fed. Cir. 2015).

As the Federal Circuit explained, “[t]he common denominator of these examples [(i.e., the reasons to exclude an element)] is disclosure of the element.” *Novartis Pharm. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013,

1017 (Fed. Cir. 2022). More particularly, “[s]ilence is generally not disclosure.” *Novartis*, 38 F.4th at 1017; *see also Seabed Geosolutions (US) Inc. v. Magseis FF LLC*, 8 F.4th 1285, 1288 (Fed. Cir. 2021). Accordingly, “the written description requirement cannot be met through simple disregard of the presence or absence of a limitation.” *Novartis*, 38 F.4th at 1017. Our reviewing court further notes that “it is possible that the written description requirement may be satisfied when a skilled artisan would understand the specification as *inherently* disclosing the negative limitation.” *Novartis*, 38 F.4th at 1017 (emphasis added, footnote omitted). Thus, “it is a question whether the application *necessarily discloses* that particular device . . . A description which renders obvious the invention for which an earlier filing date is sought is not sufficient.” *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997) (quoting *Jepson v. Coleman*, 314 F.2d 533, 536 (CCPA 1963)) (emphasis added).

Petitioner asserts that the ’262 Provisional fails to provide written description support for the claims of the ’842 Patent such that the ’842 Patent is not entitled to the earlier April 16, 2013, filing date of the ’262 Provisional. Pet. 2, 8–10. Instead, according to Petitioner, “[t]he ’842 Patent is entitled to an effective filing date no earlier than September 20, 2016” when the negative limitation was added to the claims. *Id.* at 8 (emphasis omitted). Petitioner argues that the negative limitation reciting “the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection,” which was added to the independent claims by an Amendment filed on that date, was “never expressed in the provisional application.” *Id.* According to Petitioner:

The provisional application generically describes that the networked devices 20, 21 (webcams) “connect to the network server 10 through the internet” (col. 4:32–36), but nothing in the provisional application forbids those webcams from the conventional option of scanning a QR code on a wifi-connected smartphone to receive the wifi connection information used for establishing the P2P connection.

Pet. 9 (citing Ex. 1001 ¶ 52). Petitioner argues “[t]o be sure, the law mandates that ‘silence will not generally suffice to support a negative claim limitation,’ but that is exactly what is present in the provisional application—silence.” *Id.* (citing *Novartis Pharms. Corp. v. Accord Healthcare, Inc.*, 38 F.4th 1013, 1017–18 (Fed. Cir. 2022)).

Petitioner further argues “the Applicant’s contention that the negative limitation was ‘inherently implied’ (EX1004, 188–189) was noticeably inaccurate and lacked candor.” Pet. 10 (citing Ex. 1001 ¶¶ 52–53 (citing corroborating Ex. 1021, 1023, 1024)). Rather than being inherent, Petitioner asserts Patent Owner’s arguments made during prosecution of the ’842 Patent, distinguishing over prior art using a “‘pairing’ procedure that was said to involve two mobile phones ‘captur[ing] an image pattern of each other’ by adding the negative limitation recited in the Elements [1.6]/[12.6] . . . amply demonstrated the traditional option of capturing a QR code on both camera-equipped devices to verify authorization for a connection.” *Id.* at 7, 9 (citing Ex. 1001 ¶ 52; Ex. 1004, 84–106, 133).

Patent Owner responds, arguing that the issue of whether the negative limitation was supported by the provisional application had already been decided in Patent Owner’s favor by the Examiner during prosecution of the ’498 Patent of which the subject ’842 Patent is a reissue:

[T]his issue was directly addressed by the Patent Owner's remarks in the 498 patent that the Examiner had reviewed and concurred. EX1004, 179–192. In essence, the Patent Owner's remarks in the '498 patent explained that the limitation regarding “the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection between the terminal device and the first networked monitoring device” is inherently implied, and supported by paragraphs 0035 to 0037 of the specification in the '498 patent.

PO Resp. 10.

Patent Owner further argues:

Even assuming, *arguendo*, that the effective filing date of the '842 patent is linked to the filing date of the '498 patent instead of the filing date of the '262 application, then such alternative effective filing of July 25, 2013 still makes both reference dates of the *Lorex Guide* reference (i.e., September 12, 2012) and *Lorex Video* reference (i.e., October 19, 2012) falling under the one-year grace period, and the §102(b) exception to prior art under §102(a) as discussed earlier still applies.

Id. at 11.

Petitioner replies, asserting “there is no dispute among the parties that both the provisional application (EX1003) and the utility application (EX1004) are surely lacking any **express** description of the negative limitation in Elements [1.6] and [12.6].” Pet. Reply 21. Thus, according to Petitioner, “the only remaining question is whether PO's ‘inherently implied’ arguments squarely address the *Novartis* precedent and Dr. Bim's testimony regarding the lack of inherency. POR, 9–12. They do not.” *Id.* Petitioner argues the *Norvartis* court determined “that ‘silence’ might serve as an inherent disclosure only in the rare exception when ‘the record

established that in a particular field, the absence of mention of a limitation ***necessarily excluded*** that limitation.” *Id.* at 22. In support of argument that the network monitoring device need not exclude a step of capturing an image pattern as recited by the negative limitation, Petitioner provides several examples of bi-directional image capture used in establishing connections between devices. *Id.* at 23 (citing Ex. 1001, ¶¶ 51–53, Ex. 1024, Ex. 1021, Ex. 1004). Thus, Petitioner argues these known options of bi-directional image capture “confirm[] the negative limitation surely was not ‘necessarily’ disclosed from the silence of the provisional application, [such that] the law mandates that it was not ‘inherently’ disclosed therein.” *Id.* at 23 (citing *Novartis*, 38 F.4th at 1017; *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998) (“must necessarily be present”)).

We agree with Petitioner that the ’842 Patent is entitled to an effective filing date no earlier than September 20, 2016, when the claims were amended to incorporate the argued negative limitation reciting the “the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection.” It is uncontroverted that this limitation was not recited in the ’262 Provisional, nor is it found in the resulting utility ’498 patent until its claims were amended on that later date.

We do not consider persuasive Patent Owner’s argument that the issue was addressed and considered during prosecution of the ’498 patent. PO Reply 10. Although the Examiner passed the application to issue in response to the Amendment filed July 12, 2017, which included argument addressing, inter alia, an outstanding rejection under 35 U.S.C. 112(a) for failure to

provide a written description of the newly added negative limitation, the Examiner did not provide any supporting reasons for allowance.

In contrast, Petitioner provides the declaration of Dr. Bims attesting to the availability and providing examples of bi-directional image capture wherein, at odds with the negative limitation, a first networked monitoring device *does* capture an image pattern associated with a terminal device for establishing a P2P connection. Pet. reply 23 (citing Ex. 1001 ¶¶ 51–53, Ex. 1024, Ex. 1021, Ex. 1004). Moreover, during prosecution, Patent Owner argued that the negative limitation distinguished over the applied prior art which also described bi-directional image capture:

In Jain, [US Patent Publication No. 2012/0287290,] the first and second mobile phones (terminal device and first networked device respectively) must both capture an image pattern of each other in order to complete the pairing process, **which is different from the above amended Claim 1, in which the first networked device does NOT capture any image pattern associated with the terminal device.**

Ex. 1004, 133.

Thus, the absence of mention in the originally filed applications of a bi-directional image capture, wherein both a first networked device and a terminal device capture an image pattern of each other in order to complete a pairing process, has not been shown to necessarily exclude a networked device from capturing an image pattern associated with the terminal device. Accordingly, neither the '262 Provisional nor the '498 patent application complied with the written description requirement of 35 U.S.C. § 112(a) until at least such time as the claims were amended to recite the argued negative limitation. Therefore, we further agree with Petitioner that the

'842 Patent is entitled to an effective filing date no earlier than September 20, 2016.

f) Exception to § 102(a)(1) under § 102(b)(1)

Because the Lorex Guide was published on September 12, 2012 (*see* PO Resp. 11, Pet. Reply 8), i.e., more than one year before the September 20, 2016, effective filing date of the '842 Patent, the asserted 35 U.S.C. § 102(b)(1) exception to § 102(a) does not apply. Moreover, even if the '842 Patent were entitled to the earlier filing date of either the '262 Provisional or the '498 patent application such that the Lorex Guide was published within one year of that earlier filing date, the 35 U.S.C. § 102(b)(1) exception would nonetheless still not apply. In particular, Patent Owner fails to demonstrate that the Lorex Guide was based on a disclosure made by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor.

The Lorex Guide is relied on under Ground 1 for several claim elements including (i.e., the relevant “subject matter disclosed” by the Lorex Guide includes), for example, (i) a QR code (i.e., “CamID”) printed on the back of the Lorex camera for teaching or suggesting element [1.3] and (ii) a terminal device (e.g., iPad, iPhone, or Android device) having an embedded camera that captures an image of the QR code for teaching or suggesting element [1.4]. *See* Pet. 23–25; Pet. Reply 7. Patent Owner fails to demonstrate that this subject matter was disclosed to Lorex by ThroughTek much less by one of the inventors of the '842 Patent.

According to Patent Owner, the subject matter of the Agreement was a Point-to-Point (P2P) protocol and image processing. PO Resp. 4. In

particular, the Agreement states “LOREX has recognized [ThroughTek’s] cloud connectivity services Assets,” those Assets being described in Schedule A. Ex. 2001, 1. Schedule A describes cloud connectivity services to include “varied networked device, including IP cam, NAS, Set-top box, home gateway, and similar device.” Ex. 2001, 7. Schedule A further indicates that:

[ThroughTek] will develop connectivity services with a connection platform based on P2P (Point to Point) network connection architecture and advanced Cloud computing technology via API (Application Programming Interface) for cross-platform connection. The end result will allow developers to utilize a ready-to-use API to build up the connection between different devices and across different operation systems.

Ex. 2001, 7.

Because the Agreement does not mention either cameras having imprinted QR codes or a device having an embedded camera for capturing an image of the QR code, the Agreement fails to describe or otherwise appear to be directed to the relevant subject matter alleged by Patent Owner to have been disclosed and incorporated into the Lorex Guide. Moreover, the Agreement fails to evidence that any subject matter disclosed pursuant to the Agreement was or even would be “by the inventor or joint inventor or by another who obtained the subject matter disclosed directly or indirectly from the inventor or a joint inventor” as required by 35 U.S.C. § 102(b)(1)(A).

Furthermore, as emphasized by Petitioner, the October 11, 2012, meeting between representatives of ThoughTek and Lorex occurred *after* the Lorex Guide was published on September 12, 2012. Pet Reply 8. Patent Owner does not sufficiently explain the relevance of subject matter discussed at that meeting or thereafter to what had already been published.

Moreover, the Agreement addresses prospective efforts, not information that may have been disclosed at some unidentified prior meeting as Patent Owner suggests may have occurred. *See* Sur. Reply 5 (“Although the execution of the Exclusive Agreement was initiated at 9/18/2012, the actual technical collaboration started far before in order to facilitate and solidify the cooperation.”). Thus, Patent Owner’s arguments again fall short of evidencing that the subject matter disclosed in the Lorex Guide was obtained from the inventors of the ’842 Patent.

Finally, we note that Mr. Kao, a named inventor of the ’842 Patent, states “ThroughTek did not involve . . . any Lorex publications” (Ex. 2005 ¶ 11) and further acknowledges that neither he nor ThroughTek drafted or prepared any portion of Lorex publications (Ex. 1103, 71:11–72:13).

As Patent Owner admitted at the oral argument, there is no record evidence that an inventor of the ’842 patent communicated their invention to Lorex before the September 18, 2012, agreement: “[Board]: So the record that we have contains no evidence that the inventors communicated their invention to the Lorex people before the agreement that you’ve referred to; is that correct? [Patent Owner]: Nothing on record. That’s correct, Your Honor.” Tr. 22:16–19.

g) Conclusion Concerning the Lorex Guide as Prior Art

The Lorex Guide, having been published on September 12, 2012, is prior art under 35 U.S.C. § 102(a)(1) because the ’842 Patent is entitled to an effective filing date no earlier than September 20, 2016, i.e., more than one year after the publication date of the Lorex Guide. Alternatively, even if the ’842 Patent were found to be entitled to either of the earlier filing dates of the ’262 Provisional or the ’498 patent application, both of which dates are

within one year of the Lorex Guide publication date, because the § 102(b)(1) exceptions to 35 U.S.C. § 102(a)(1) do not apply, the Lorex Guide is nonetheless prior art under 35 U.S.C. § 102(a)(1).

4. Whether Claim 1 is Obvious Over the Combined Teachings of the Lorex Guide and Kim

Below we consider the claim 1 limitations and rationale to combine in turn.

a. Limitation 1.P: “A system to identify a networked device for establishing a point-to point (P2P) connection, the system comprising”

Petitioner argues that the Lorex Guide-Kim combination would have rendered obvious a system for establishing a P2P connection between peer nodes as set forth in the preamble of claim 1. Pet. 19 (citing Ex. 1001 ¶ 72). In particular, Petitioner contends that the Lorex Guide’s description of “a system for establishing a connection between an IP camera^[8] and a user/terminal device (e.g., iPhone, iPad, or Android device)” teaches the subject matter of the preamble. *Id.* (citing Ex. 1006, 12–20). Petitioner further contends that the preamble is taught by Kim’s “techniques for establishing a P2P connection between peer nodes . . . in combination with [the] Lorex Guide.” *Id.* (citing Ex. 1007 ¶¶ 6, 18, 23).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach the preamble of claim 1, i.e., claim element 1.P.⁹

⁸ Petitioner refers to the Lorex Guide’s wireless network camera as an “IP [(Internet Protocol)] Camera.” See, e.g., Pet. 19.

⁹ We need not determine whether the preamble of claim 1 is limiting because Petitioner has shown that the Lorex Guide teaches the preamble.

- b. Limitation 1.1: “a network server having a list of networked devices that are pre-registered in the network server, wherein the network server associates a corresponding identification of each networked device with a corresponding IP address of the networked device for enabling terminal devices to establish P2P connections with the plurality of networked devices”*

Petitioner contends that claim limitation 1.1 is taught by the combination of the Lorex Guide and Kim. Pet. 19 (citing Ex. 1001 ¶¶ 73–76). In particular, Petitioner argues that a person of ordinary skill in the art (POSITA) would have understood that the Lorex Guide’s IP camera would be connected to the Internet using an Internet-connected server in establishing a connection with a smartphone. *Id.* at 19–20 (citing Ex. 1001 ¶ 73; Ex. 1006, iv, 1, 4, 5, 7, 9, 11, 33, 34, 43, 55, 59, 85, 107, 129, 132, 137, 139, 149, 150).

Petitioner further argues that “[e]ven if [the] Lorex Guide did not suggest a network server having all of the ‘list of devices’/functionality recited in Element [1.1], the predictable Lorex Guide-Kim combination would have provided the claimed network server.” *Id.* In particular, according to Petitioner, Kim’s server stores and manages the network addresses of peer nodes, stores the IP addresses and IDs (i.e., Kim’s “CamID”) of preregistered devices, and provides direct communication using P2P Layer 4. *Id.* (citing Ex. 1007 ¶¶ 6, 10, 11–13, 20, 21, 39, 40, 43, 47, 54–76, 78–84, 94–98, Figs. 1–3, 5, 6; Ex. 1001 ¶¶ 74, 75). With reference to Kim’s Figure 5, Petitioner identifies “information in which a direct tunnel can be set between the two peer nodes P1 and P2” including a peer node’s virtual, network, and NAT addresses. *Id.* at 21 (quoting Ex. 1007; ¶ 83 citing Ex. 1007 ¶¶ 13, 84, Fig. 6).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach claim limitation 1.1.

- c. *Limitation 1.2: “a first networked monitoring device, having a first identification embedded in the first networked monitoring device, wherein the first networked monitoring device registers the embedded first identification into the list of networked devices to associate a corresponding IP address of the first networked monitoring device with the first identification by connecting to the network server through the Internet”*

Petitioner contends that the combined teachings of the Lorex Guide and Kim teach or suggest claim limitation 1.2. Pet. 21 (citing Ex. 1001 ¶¶ 77–79). According to Petitioner, both the Lorex Guide and Kim describe peer nodes with embedded IDs. *Id.* at 21–22 (citing Ex. 1001 ¶¶ 77–79; Ex. 1006 ¶ 13; Ex. 1007 ¶¶ 56, 59, 63, 64, 75, 81, Fig. 5). Petitioner further asserts that an embedded address of Kim’s first networked monitoring device is registered in a server’s list of networked devices and that the server “associates a registered peer node’s ID with multiple IP addresses, including IP addresses contained in the peer node’s virtual address, network address, and NAT address.” *Id.* at 22 (citing Ex. 1001 ¶ 78; Ex. 1007 ¶¶ 40–42, 54–60, 67, 68, 74, 75, 78, Figs. 2–3, 5–6). According to Petitioner, “[t]he server and peer nodes are connected through a public network (e.g., the Internet), and the registration of Kim’s embedded ID is performed by the first networked monitoring device connecting to the network server through the Internet.” *Id.* at 23 (citing Ex. 1007 ¶¶ 38, 45, 46, Fig. 1; Ex. 1001 ¶ 78).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach claim limitation 1.2.

- d. Limitation 1.3: “an image pattern, being attached on the first networked monitoring device and comprising the first identification for establishing a P2P connection with the first networked monitoring device; and”*

Petitioner contends that the combined teachings of the Lorex Guide and Kim teach or suggest claim limitation 1.3. Pet. 23 (citing Ex. 1001 ¶¶ 80–82). Petitioner argues that the Lorex Guide discloses obtaining a “CamID” of a wireless network (i.e., “IP”) camera using a phone to scan a QR code printed on the back of the camera (i.e., “attached” to the camera) and establish a connection between the camera and the phone. *Id.* (citing Ex. 1006 ¶¶ 11, 13, 16, 19; Ex. 1001 ¶¶ 80, 81). Petitioner further argues that “[t]o the extent [the] Lorex Guide does not expressly state that the connection between the IP camera and the IP phone is a P2P connection, the predictable Lorex Guide-Kim combination provides such a P2P connection as taught in Kim.” *Id.* at 24 (citing Ex. 1007 ¶¶ 5, 18, 78–89, Fig. 6; Ex. 1001 ¶ 82.).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach claim limitation 1.3.

- e. Limitation 1.4: “a terminal device, wherein the terminal device generates a connection request signal when the image pattern is captured to the terminal device; and the terminal device transmits the connection request signal to the network server through the Internet,”*

Petitioner contends that the combined teachings of the Lorex Guide and Kim teach or suggest claim limitation 1.4. Pet. 24–26 (citing Ex. 1001 ¶¶ 83–85). Petitioner argues that the Lorex Guide’s disclosures of a smartphone that (i) has an imbedded camera that captures a QR code printed on an IP camera and (ii) “transmits information to connect the [smartphone]

to the IP camera when the QR code is scanned” teaches the claimed terminal device. *Id.* at 25 (citing Ex. 1006, 12–20; Ex. 1001 ¶ 83). According to Petitioner, the Lorex Guide’s terminal device is disclosed to communicate with an IP camera through the Internet. *Id.* (citing Ex. 1006, 7, 59, 12–20).

Petitioner further argues that the connection of limitation 1.4 is taught by Kim’s disclosure of “a terminal device (e.g., ‘P1’ in FIG. 6) that transmits a ‘tunnel query request’ message that includes an ID of the first networked monitoring device (e.g., ‘P2’ in FIG. 6) to the network server 100” to provide direct communications with peer node P2. Pet. 25 (citing Ex. 1007 ¶¶ 80–81, Fig. 6; Ex. 1001 ¶ 84. According to Petitioner, “[t]he network server and P1 are connected through a public network (e.g., the Internet), indicating that the ‘tunnel query request’ message is transmitted by P1 to the server through the Internet.” *Id.* (citing Ex. 1007 ¶¶ 38, 45, 46, Fig. 1; Ex. 1001 ¶ 84). Petitioner argues that “the Lorex Guide-Kim terminal device would predictably transmit such a connection request signal [as taught by Kim’s tunnel query request] ‘when’ the QR code is captured by following the connection procedure described in [the] Lorex Guide.” *Id.* at 26 (citing Ex. 1002, 13–14; Ex. 1001 ¶ 85).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach claim limitation 1.4.

- f. Limitation 1.5 “wherein the network server obtains the first identification according to the connection request signal and obtains the corresponding IP address of the first networked monitoring device according to the obtained first identification for establishing a P2P connection between the terminal device and the first networked monitoring device, wherein the network server respectively transmits hole-punching messages to the terminal device and the first networked monitoring device via the Internet to establish the P2P connection, and”*

Petitioner contends that the combined teachings of the Lorex Guide and Kim teach or suggest claim limitation 1.5. Pet. 26 (citing Ex. 1001 ¶¶ 86–89). Petitioner asserts that Kim’s “server 100 receives the ‘tunnel query request’ message from the terminal device (e.g., P1 in FIG. 6), and the ‘tunnel query request message includes an ID of the peer node P2.’” *Id.* (quoting Ex. 1007 ¶¶ 81–82). According to Petitioner, “[t]he ID carried in the tunnel request message of the predictable Lorex Guide-Kim combination can be the Lorex Guide IP camera’s ‘CamID’ obtained by reading the captured image of the QR code printed on the IP camera with the terminal device (e.g., the iPhone, iPad, or Android device).” *Id.* (citing Ex. 1006, 12–20; Ex. 1001 ¶ 86).

Petitioner further contends that the virtual, network, and NAT addresses stored by Kim’s server teach IP addresses of a networked monitoring device that are transmitted to the terminal device in the tunnel query. Pet. 27–28 (citing Ex. 1007¹⁰ ¶¶ 78–84, Figs. 5, 6). Petitioner further contends that “the server includes the virtual, network, and NAT addresses

¹⁰ Although Petitioner sometimes cites to Ex. 1006 (i.e., the Lorex Guide) when discussing Kim, we understand the citations are properly to Exhibit 1007.

(each of which includes an IP address) of the terminal device (e.g., P1) in the ‘tunnel query notification’ message and transmits this message to the first networked monitoring device (e.g., P2).” *Id.* at 27 (citing Ex. 1007 ¶ 83, Fig. 6). Petitioner still further argues that Kim’s “server’s mapping of peer IDs to the peers’ respective virtual, network, and NAT addresses allows the server to look-up and obtain these addresses (including the respective IP addresses) for inclusion in the ‘tunnel query response’ and ‘tunnel query notification’ messages.” *Id.* at 28 (citing Ex. 1007 ¶¶ 71–76, 80–84, Fig. 5; Ex. 1001 ¶ 88). According to Petitioner, Kim’s disclosure that “[t]he peer nodes P1 and P2, having received a tunnel query response message and a tunnel query request message, respectively, exchange a message for punching a TCP or UDP hole (S614)” teaches a server transmitting hole punching messages to establish a P2P connection. *Id.* at 28–29 (citing Ex. 1007 ¶¶ 18–19, 66, 83, 84, Fig. 6; Ex. 1007 ¶ 89).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach claim limitation 1.5.

g. Limitation 1.6: “wherein the first networked monitoring device does not capture any image pattern associated with the terminal device for establishing the P2P connection between the terminal device and the first networked monitoring device.”

Petitioner contends that the combined teachings of the Lorex Guide and Kim teach or suggest claim limitation 1.6. Pet. 29 (citing Ex. 1001 ¶¶ 90–93). Petitioner argues that the Lorex Guide “direct[s] the user to acquire the ‘CamID’ of the IP camera by capturing an image of a QR code . . . without the need to scan any image pattern on the user’s phone.” *Id.* (citing Ex 1006, 12–20). According to Petitioner, “throughout the entire

step-by-step user-guide instructions, [the] Lorex Guide never once instructs the user to use the IP camera to capture any image pattern associated with the terminal device (e.g., the iPhone, iPad, or Android device) for establishing a connection between the IP camera and the terminal device.” *Id.* at 29–30 (citing Ex. 1001 ¶¶ 91–92). Thus, Petitioner argues that the negative limitation of the networked device (e.g., IP camera) not capturing any image pattern associated with the terminal device (e.g., iPhone) for establishing the P2P connection is disclosed or suggested by the Lorex Guide. *Id.* (citing Ex. 1001 ¶¶ 90–93).

On the record before us and in the absence of any counterargument from Patent Owner, we find that the Lorex Guide and Kim teach claim limitation 1.6.

h. Reasons to Combine the Lorex Guide and Kim

Petitioner asserts multiple reasons for combining the teachings of the Lorex Guide with the teachings of Kim. Pet. 16–19. Petitioner contends, with Dr. Bim providing supporting testimony, that incorporating Kim’s hole-punching technique into the Lorex Guide’s user/terminal device was understood to be “particularly beneficial when the endpoints of the connection are positioned behind respective NATs or firewalls.” *Id.* at 16 (citing Ex. 1001 ¶¶ 63–64). In particular, Petitioner contends, with Dr. Bim providing supporting testimony, that (1) “a POSITA would have understood that implementing [the] Lorex Guide’s system to include a conventional ‘network server’ that facilitates hole-punching (as suggested by Kim) would have advantageously allowed ‘for direct communication between a monitoring device and a terminal device in an IP network with a firewall.’” *Id.* at 17 (citing Ex. 1001 ¶ 66). Petitioner further argues that

(2) implementing the system of the Lorex Guide to use a network server and hole punching allows Kim’s network server to “conveniently work with an ‘existing application’ like [the] Lorex Guide’s ‘Ping’ app to advantageously ‘construct[] a direct communication environment for . . . a video camera.’” *Id.* (quoting Ex. 1007 ¶ 123). Similarly, Petitioner argues, with Dr. Bim providing supporting testimony, that (3) incorporating a network server that implements hole-punching advantageously “renders it ‘unnecessary for each application service to form a special session,’ thereby improving ‘flexibility’ in ‘operating each service.’” *Id.* at 18 (quoting Ex. 1007 ¶ 122; citing Ex. 1001 ¶ 68). Petitioner further argues that (4) the combination “would beneficially allow the server to confirm whether a direct tunnel can be formed between the IP camera and user’s/terminal device.” *Id.* (citing Ex. 1007 ¶¶ 78–83, 94–99, 14–18, Figs. 6, 8; Ex. 1001 ¶ 69).

In addition to arguing several teachings, suggestions, or motivations in the prior art that would have led a POSITA to modify the teachings of the Lorex Guide to incorporate the teachings of Kim, Petitioner argues, with Dr. Bim providing supporting testimony, that “both [the] Lorex Guide and Kim are directed to connecting network endpoint devices (e.g., peer devices) including smart phones and cameras” and “a POSITA would have been sufficiently skilled to implement such a combination given the predictable electrical/network components and the relatively advanced state of the art at the time.” *Id.* (citing Ex. 1001 ¶ 70). Thus, according to Petitioner, “a POSITA would have had a reasonable expectation of success in achieving the Lorex Guide-Kim combination.” *Id.* at 19 (citing Ex. 1001 ¶¶ 70–71).

Patent Owner argues, “[a]s remarked in the Declaration of Mr. Yen-Huang [sic., Yen-Kuang] Chen, . . . , he was unaware of any suggestion to

combine these two technologies to enhance user experience and he regarded this advancement as both novel and not obvious.” PO Resp. 5 (citing Ex. 2004 ¶¶ 19–21).

Petitioner replies, addressing Patent Owner’s arguments challenging reasons for combining the teachings of the references, arguing

1. Patent Owner fails to address, “let alone dispute[], any of the multiple motivations-to-combine expressly articulated in the Petition and the expert declaration of Dr. Harry Bims.” Pet. Reply 16 (citing Pet. 16–19, 38–40, 58–60; Ex. 1001 ¶¶ 63–71, 113–118, 156–161).
2. “Dr. Chen’s **personal** awareness of a motivation and what he **subjectively** regarded as novel or non-obvious are legally irrelevant. It is black-letter law that obviousness must be assessed from the perspective of a hypothetical person of ordinary skill in the art.” *Id.* (citing *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1379 1379–81 (Fed. Cir. 2023)).
3. Dr. Chen’s “notion that the use of barcodes/visual markers for identifying devices as the target of network connections (including P2P connections) was not known before ’842 Patent is simply wrong” as contradicted by Dr. Bims, Mr. Kardashov, and evidenced by the prior art Menzel reference. *Id.* at 18 (citing Ex. 1001 ¶¶ 7, 24–34; Ex. 1011 ¶¶ 14–16; Ex. 1022, Figs. 5A–D, 6A–D).

Patent Owner’s Sur-Reply does not address the above summarized arguments presented in Petitioner’s Reply to Patent Owner’s Response.

We are persuaded that a skilled artisan would have had reasons to combine the teachings of the Lorex Guide and Kim. We do not agree with Patent Owner’s arguments. Instead, the preponderance of the evidence supports Petitioner’s position.

The motivation-to-combine analysis is a flexible one. *See Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1379 (Fed. Cir. 2023). A motivation to combine may be found “explicitly or implicitly in market forces; design incentives; the ‘interrelated teachings of multiple patents’; ‘any need or problem known in the field of endeavor at the time of invention and addressed by the patent’; and the background knowledge, creativity, and common sense of the person of ordinary skill.” *ZUP, LLC v. Nash Mfg., Inc.*, 896 F.3d 1365, 1371 (Fed. Cir. 2018) (quoting *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1354 (Fed. Cir. 2013)). “[T]he motivation-to-combine analysis ‘need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.’” *PACT XPP*, 61 F.4th at 1380 (citing *KSR*, 550 U.S. at 418).

Patent Owner fails to address Petitioner’s reasoning for combining the references (Pet. 16–19) as discussed above including (1) to allow for direct communication between a monitoring device and a terminal device located behind a firewall, (2) to allow Kim’s network server to work with an existing application to construct a direct communication environment for a video camera, (3) because using a network server that implements hole-punching avoids the need to establish a special session, and (4) to allow the server to confirm that a direct tunnel can be established between devices. *Id.* Nor does Patent Owner dispute that both the Lorex Guide and Kim are

directed to connecting a peer device such that a POSITA would have had a reasonable expectation of success in combining the teaching of the Lorex Guide with the teaching of Kim. *Id.* at 19. As the Federal Circuit has explained, “[t]here is a motivation to combine when a known technique ‘has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way,’ . . . using the ‘prior art elements according to their established functions.’” *PACT XPP*, 61 F.4th at 1380–81.

In conclusion, we credit Dr. Bim’s testimony that a skilled artisan would have had reasons to combine the teachings of the Lorex Guide and Kim. Thus, on the record before us and based on a preponderance of the evidence, we are persuaded that Petitioner makes a sufficient showing that a skilled artisan would have had reasons, with rational underpinning, to combine the teachings of the Lorex Guide and Kim, with a reasonable expectation of success.

i. Objective Indicia of Nonobviousness

Patent Owner argues, “as reflected by the commercial success of the patented product, there was an unmet need^[11] to enhance user experience through streamline system installation at the time when the ’842 patent’s

¹¹ It does not appear that Patent Owner is arguing that “unmet need” is a separate consideration from commercial success. However, if Patent Owner is making that assertion, then Patent Owner’s evidence does not show such an unmet need. “[L]ong-felt need is analyzed as of the date of an articulated identified problem and evidence of efforts to solve that problem.” *Texas Instruments Inc. v. U.S. Int’l Trade Comm’n*, 988 F.2d 1165, 1178 (Fed. Cir. 1993). Patent Owner does not point to persuasive evidence of an articulated identified problem or efforts to solve such a problem.

earliest application was filed.” PO Resp. 5 (citing Ex. 2004 ¶¶ 19–21; Ex. 2005 ¶¶ 7–30).

In reply, Petitioner argues

1. Patent Owner fails to demonstrate a nexus between the claims and any commercial success. Pet. Reply. 19–20 (citing *Fox Factory, Inc. v. SRAM, LLC*, 944 F.3d 1366, 1373 (Fed. Cir. 2019))
2. Petitioner’s assertions of commercial success are inadequate as stemming from “a single sentence in paragraph 7 of the Kao declaration” by a named inventor of the ’842 Patent. *Id.* at 20 (citing *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996) (“the inventor’s opinion ... alone[] is insufficient”)).

Patent Owner’s Sur-Reply does not address the above-summarized arguments presented in Petitioner’s Reply to Patent Owner’s Response.

For objective indicia of nonobviousness to be accorded substantial weight, a nexus between the evidence and the merits of the claimed invention must be established. *ClassCo, Inc. v. Apple, Inc.*, 838 F.3d 1214, 1220 (Fed. Cir. 2016). Presuming nexus is appropriate “when the patentee shows that the asserted objective evidence is tied to a specific product and that product ‘embodies the claimed features, and is coextensive with them.’” *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1072 (Fed. Cir. 2018) (citation omitted). Here, Patent Owner has not made that showing. No evidence is provided that demonstrates how any Patent Owner product is tied to the claims of the ’842 patent. See PO Resp. 5; Ex. 2004 ¶¶ 19–21; Ex. 2005 ¶¶ 7–30. Patent Owner only generally states “[t]he enhanced Point-to-Point connecting process of the ’842 patent [is] embodied in the Patent Owner’s product,” but the product is not identified, no details are provided

on it, nor is there any evidence provided on how it embodies the claims of the patent.

Moreover, Patent Owner's bare assertion of commercial success is unpersuasive of nonobviousness. According to the Federal Circuit:

Commercial success is relevant because the law presumes an idea would successfully have been brought to market sooner, in response to market forces, had the idea been obvious to persons skilled in the art. Thus, the law deems evidence of (1) commercial success, and (2) some causal relation or "nexus" between an invention and commercial success of a product embodying that invention, probative of whether an invention was non-obvious.

Merck & Co. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1376 (Fed. Cir. 2005). Commercial success may be evidenced by sales data and the market share represented by those sales. *See In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996). "To establish a proper nexus between a claimed invention and the commercial success of a product, a patent owner must offer 'proof that the sales were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.'" *SightSound Techs., LLC v. Apple Inc.*, 809 F.3d 1307, 1319 (Fed. Cir. 2015) (quoting *Huang*, 100 F.3d at 140).

Patent Owner cites to the declaration of Mr. Kao, a named inventor of the '842 Patent and founder of ThroughTek, in support of arguments of commercial success:

[A]s reflected by the commercial success of the patented product, there was an unmet need to enhance user experience through streamline[d] system installation at the time when the '842 patent's earliest application was filed. EX2004, ¶¶19–21; EX2005, ¶¶7–30. The enhanced Point-to-Point connecting

process of the '842 patent embodied in the Patent Owner's product has fulfilled such need for an enhanced user experience, and contributed to the commercial success of the Patent Owner's product. *Id.*

PO Resp. 5.

The Kao Declaration states “[t]he ThroughTek’s P2P solutions has dominated the P2P market. The commercial success of the ThroughTek’s P2P solution indicates that the importance of this patented invention in P2P solution.” Ex. 2005 ¶ 7. No evidence of sales, market share, or other indicia of commercial success is provided. Likewise, Patent Owner provides no evidence that any commercial success is directly attributable to the unique characteristics of the claimed invention. Accordingly, we attribute little weight to Mr. Kao’s statement of commercial success and are not persuaded by Patent Owner’s argument that any such objective indicia demonstrate nonobviousness of the claims.

a. Conclusion as to Claim 1

We are persuaded that Petitioner has demonstrated a rationale to combine the Lorex Guide and Kim, and that there is sufficient evidence provided that the combination of the references teaches all the limitations of claim 1. We also find Patent Owner’s objective indicia of non-obviousness unpersuasive and entitled to little weight. Accordingly, upon consideration of all the evidence, we conclude that Petitioner has proven by a preponderance of the evidence that claim 1 would have been obvious over the combination of the Lorex Guide and Kim.

5. Independent Claim 12

Independent claim 12 is similar to claim 1, but written in the form of a method claim instead of an apparatus claim. *Compare* Ex. 1002, 9:7–47,

with id. at 10:18–58. Petitioner references its arguments for claim 1 for the teaching of all the limitations of claim 12. Pet. 32–34. Patent Owner does not separately dispute Petitioner’s position as to claim 12. Thus, our reasoning with respect to claim 12 is substantially the same as our analysis with respect to claim 1. Accordingly, for the reasons discussed above with respect to claim 1, we determine that Petitioner has proven by a preponderance of the evidence that claim 12 would have been obvious over the combination of the Lorex Guide and Kim.

6. Dependent Claims 2, 3, 6, 10, 13, 14, 17, and 18

For dependent claims 2, 3, 6, 10, 13, 14, 17, and 18, Petitioner argues, with citations to the Lorex Guide and Dr. Bim’s testimony, that the Lorex Guide teaches each of the dependent claims’ additional limitations. Pet. 28–32, 34–37. We have considered the record before us and, in the absence of any counterargument from Patent Owner, we determine that Petitioner has proven by a preponderance of the evidence that claims 2, 3, 6, 10, 13, 14, 17, and 18 would have been obvious over the combination of the Lorex Guide and Kim.

E. Additional Grounds

Petitioner also asserts that (i) claims 1–3, 6, 10, 12–14, 17, and 18 would have been obvious over the combination of Kim and the Lorex Video (Pet. 37–57), and that (ii) claims 1–4 and 6–19 would have been obvious over the combination of Throughtek-2012 and the Lorex Video (Pet. 57–68).

1. Kim and the Lorex Video (Ex. 1008)

The Lorex Video is a video recording of a commercial demonstration of “how quick and easy it is to set up [Lorex’s] new wireless network

cameras, the LNC100 series.” Lorex Video, 0:07–0:13.¹² The video demonstrates the steps required for a user to connect the Lorex Wireless Network Camera to the Internet through an Ethernet cable connected to a local router. *Id.* at 0:31–0:54. The video demonstrates connecting an iPhone to the camera by downloading and running the Lorex Ping App, adding the wireless network camera to the app’s camera list using the Ping App and iPhone to scan a QR code on the back of the wireless network camera, and entering a password. *Id.* at 0:55–1:36. A screen shot of the video (at time 1:17) is reproduced below showing a user scanning a QR code appearing on the back of the Lorex Wireless Network Camera using an iPhone running the Lorex Ping App. The picture-in-picture inset in the lower left of the figure additionally shows the Lorex Wireless Network Camera connected via a white ethernet cable to a router to provide Internet connectivity.

¹² Our citations here are to the time stamps on the video of the Lorex Video.



The figure above is a screen shot of the Lorex Video at time 1:17 demonstrating use of an iPhone to scan a QR code on the back of the Lorex Wireless Network Camera.

Petitioner's mapping of the Kim-Lorex Video combination is very similar to its mapping of the Lorex Guide-Kim combination, with the Lorex Video cited for most of the aspects of claim 1 for which Petitioner cites the Lorex Guide. Pet. 12–30, 38–50. We recognize that in its mapping of the Lorex Guide and Kim, Petitioner presents the Lorex Guide as the primary reference, while in its mapping of Kim and the Lorex Video, Petitioner presents Kim as the primary reference. However, “where the relevant factual inquiries underlying an obviousness determination are otherwise clear, characterization . . . of prior art as ‘primary’ and ‘secondary’ is merely a matter of presentation with no legal significance.” *In re Mouttet*, 686 F.3d 1322, 1333 (Fed. Cir. 2012).

Patent Owner contends “[t]he Lorex Video reference is not prior art under the §102(a) in view of the §102(b) exception since the subject matter

disclosed therein is obtained directly or indirectly from the Patent Owner as evidenced by the Agreement between ThroughTek and Lorex.” PO Resp. 6. Patent Owner relies on its argument presented in connection with the Lorex Guide reference, discussed above, in support of the assertion. *Id.* Because those arguments are not persuasive, we also find unpersuasive Patent Owner’s contention concerning the Lorex Video. Therefore, we determine the Lorex Video qualifies as prior art.

Patent Owner further asserts “secondary factors can be considered to provide context when evaluating obviousness patent under 35 USC §103,” referencing its earlier arguments. PO Resp. 7. Having determined those arguments and evidence to be unpersuasive for the reasons discussed above, we likewise determine that Patent Owner’s objective indicia of non-obviousness is unpersuasive and entitled to little weight as to the combination of Kim and the Lorex Video.

Accordingly, upon consideration of all the evidence, we conclude that Petitioner has proven by a preponderance of the evidence that claims 1–3, 6, 10, 12–14, 17, and 18 would have been obvious over the combination of Kim and the Lorex Video.

2. Throughtek-2012 (Ex. 1017) and the Lorex Video

Throughtek-2012 is a certified English language translation of German utility model application DE202012101164U1 (Exhibit 1016) published June 6, 2012, i.e., less than one year prior to the April 16, 2013, filing date of the ’842 patent’s provisional application. Ex. 1017, code (43); Ex. 1002, code (60). According to Petitioner, the disclosure and drawings of Throughtek-2012 are substantially the same as those of the ’842 patent. Pet. 58 (citing Ex. 1001 ¶¶ 154–155). Thus, Petitioner argues that

“Throughtek-2012 effectively anticipates all elements of the ’842 patent, except for the negative limitation recited in Elements [1.6] and [12.6], which is equally lacking from the similar specifications of Throughtek-2012 and the later April 13, 2016 provisional application.” *Id.*

Patent Owner, in addition to asserting that the Lorex Video does not qualify as prior art for the reasons discussed above, additionally asserts that the ThroughTek-2012 reference does not qualify. PO Resp. 8. To the extent Patent Owner relies on argument presented in connection with the Lorex Guide in support of its assertion, such argument is unpersuasive for the reasons discussed above. Accordingly, we determine the ThroughTek-2012 reference qualifies as prior art under 35 U.S.C. § 102(a)(1).

Patent Owner further asserts “secondary factors can be considered to provide context when evaluating obviousness patent under 35 USC §103,” referencing its earlier argument. PO Resp. 8. Having determined those arguments to be unpersuasive for the reasons discussed above, we likewise determine that Patent Owner’s objective indicia of non-obviousness is unpersuasive and entitled to little weight as to the combination of ThroughTek-2012 and the Lorex Video.

Substantively, although the disclosures of the Specification and Throughtek-2012 are not the same, we do not discern a material difference, and Patent Owner does not argue that the differences are material. Petitioner’s mapping of Throughtek-2012 and the Lorex Video to claim 1 is sufficient to show that the combination teaches each limitation of claims 1–4 and 6–19, and that a skilled artisan would have had reasons, with rational underpinning, to combine the teachings of Throughtek-2012 and the Lorex Video, with a reasonable expectation of success. Pet. 60–68. Thus, upon

consideration of all the evidence, we conclude that Petitioner has proven by a preponderance of the evidence that claims 1–4 and 6–19 would have been obvious over Throughtek-2012 and the Lorex Video.

III. CONCLUSION¹³

Petitioner has proven by a preponderance of the evidence that:

- A. Claims 1–3, 6, 10, 12–14, 17, and 18 would have been obvious over the Lorex Guide and Kim;
- B. Claims 1–3, 6, 10, 12–14, 17, and 18 would have been obvious over Kim and the Lorex Video; and
- C. Claims 1–4 and 6–19 would have been obvious over Throughtek-2012 and the Lorex Video.

The outcome for the challenged claims of this Final Written Decision follows. In summary:

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–3, 6, 10, 12–14, 17, 18	103	Lorex Guide, Kim	1–3, 6, 10, 12– 14, 17, 18	

¹³ Should Patent Owner wish to pursue amendment of the challenged claims in a reissue or reexamination proceeding subsequent to the issuance of this decision, we draw Patent Owner’s attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

Claim(s)	35 U.S.C. §	Reference(s)/ Basis	Claim(s) Shown Unpatentable	Claim(s) Not Shown Unpatentable
1–3, 6, 10, 12–14, 17, 18	103	Kim, Lorex Video	1–3, 6, 10, 12– 14, 17, 18	
1–4, 6–19	103	Throughtek- 2012, Lorex Video	1–4, 6–19	
Overall Outcome			1–4, 6–19	

IV. ORDER

It is hereby:

ORDERED that claims 1–4 and 6–19 of the '842 patent are unpatentable;

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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Patent RE47,842 E

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