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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/986,389	11/20/2007	Myeong Joon Kang	9062-0009

CONFIRMATION NO. 2143

174899
The Law Offices of David A. Gerasimow, P.C.
211 W. Wacker Dr.
Ste. 1717
Chicago, IL 60606

POA ACCEPTANCE LETTER

OC000000077844228

Date Mailed: 09/13/2024

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 08/29/2024.

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**.

/zretta/

Petitioner Micron Ex-1004, 0001

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Alexandria, VA 22313 - 1450
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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
11/986,389	**08/29/2024 04:23:23 PM Z ET**	**10519-226**

Title of Invention

PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

Application Information

APPLICATION TYPE	Utility - Nonprovisional Application under 35 USC 111(a)	PATENT #	8327051
CONFIRMATION #	2143	FILED BY	David Gerasimow
PATENT CENTER #	66982262	FILING DATE	11/20/2007
CUSTOMER #	67813	FIRST NAMED INVENTOR	Myeong Joon Kang
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
POA8327051.pdf	2	Power of Attorney	265 KB
Warning: The PDF file has been signed with a digital signature and the legal effect of the document will be based on the contents of the file not the digital signature.			
POA8327051 3.73c.pdf	3	Assignee showing of ownership per 37 CFR 3.73	119 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
POA8327051.pdf	F561C9937A3F9A07815E77E96D2BA6492FDC9644AF4E0CB31 ABB1715B8B186660F90F95D2865B39310C9FF98E86350B770F C5CDF9E8F86CA9A53BD27059DC239

POA8327051 3.73c.pdf

1C191EEA422EA5DFECE97F770D7B2D9FEAFE1FE47558A7F9
E120B986261189D29AF3AB2B9CA36B86F854C14B303046854
BE211D4199EC4C6EDFD59B1ED557F63

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 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.

Docusign Envelope ID: B4E95A0D-813C-4878-AB85-C33B64EA8594

PTO/AIA/81A (02-15)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT - POWER OF ATTORNEY OR REVOCATION OF POWER OF ATTORNEY WITH A NEW POWER OF ATTORNEY AND CHANGE OF CORRESPONDENCE ADDRESS

Patent Number	8327051
Issue Date	12/04/2012
First Named Inventor	Myeong Joon KANG
Title	Portable handheld memory card and methods for use therewith
Attorney Docket No.	9062-0009

I hereby revoke all previous powers of attorney given in the above-identified patent.

☐ A Power of Attorney is submitted herewith.

OR

☒ I hereby appoint Practitioner(s) associated with the Customer Number identified in the box at right as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith: 174899

OR

☐ I hereby appoint Practitioner(s) named below as my/our attorney(s) or agent(s) with respect to the patent identified above, and to transact all business in the United States Patent and Trademark Office connected therewith:

Practitioner(s) Name	Registration Number

Please recognize or change the correspondence address for the above-identified patent to:

☒ The address associated with the above-identified Customer Number.

OR

☐ The address associated with the Customer Number identified in the box at right:

OR

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

I am the:

☐ Applicant.

OR

☒ Patent owner.

Statement under 37 CFR 3.73(c) (Form PTO/AIA/96) submitted herewith or filed on _____.

SIGNATURE of Applicant or Patent Owner

Signature	Peter Hardigan 844132A3B7D4424...	Date	8/29/2024
Name	Peter Hardigan	Telephone	(917) 622-0926
Title and Company	Manager, Palisade Technologies, LLP		

NOTE: Signatures of all the applicants or patent owners of the entire interest or their representative(s) are required. If more than one signature is required, submit multiple forms, check the box below, and identify the total number of forms submitted in the blank below.

☐ A total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 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.**

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

Docusign Envelope ID: B4E95A0D-813C-4878-AB85-C33B64EA8594

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.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: PALISADE TECHNOLOGIES, LLP

Application No./Patent No.: 8327051 Filed/Issue Date: 12/4/2012

Titled: PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

PALISADE TECHNOLOGIES, LLP, a LIMITED LIABILITY PARTNERSHIP

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

B. ☑ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: MYEONG JOON KANG To: SANDISK CORPORATION

   The document was recorded in the United States Patent and Trademark Office at

   Reel 020176, Frame 0369, or for which a copy thereof is attached.

2. From: SANDISK CORPORATION To: SANDISK TECHNOLOGIES INC.

   The document was recorded in the United States Patent and Trademark Office at

   Reel 026276, Frame 0538, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). 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**.

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

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: SANDISK TECHNOLOGIES INC. To: SANDISK TECHNOLOGIES LLC

The document was recorded in the United States Patent and Trademark Office at
Reel 038809, Frame 0600, or for which a copy thereof is attached.

4. From: SANDISK TECHNOLOGIES LLC To: PALISADE TECHNOLOGIES, LLP

The document was recorded in the United States Patent and Trademark Office at
Reel 068301, Frame 0100, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at
Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/David Gerasimow/	08-29-2024
Signature	Date
David Gerasimow	57,512
Printed or Typed Name	Title or Registration Number

Petitioner Micron Ex-1004, 0007

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.

508708206 08/15/2024

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI432478

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SanDisk Technologies LLC	08/12/2024

RECEIVING PARTY DATA

Company Name:	Palisade Technologies, LLP
Street Address:	1468 James Rd.
City:	Gardnerville
State/Country:	NEVADA
Postal Code:	89460

PROPERTY NUMBERS Total: 14

Property Type	Number
Patent Number:	9530716
Patent Number:	8148962
Patent Number:	9501398
Patent Number:	9448876
Patent Number:	9454448
Patent Number:	8327051
Patent Number:	9466383
Patent Number:	9281314
Patent Number:	8996838
Patent Number:	9373408
Patent Number:	9524974
Patent Number:	9349458
Patent Number:	7743258
Patent Number:	8135961

CORRESPONDENCE DATA

Fax Number:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 3129194254

Email: dave@gerasimowlaw.com

Correspondent Name:	David Gerasimow
Address Line 1:	FL3 PMB1717
Address Line 2:	211 W Wacker Dr
Address Line 4:	Chicago, ILLINOIS 60606

NAME OF SUBMITTER:	David Gerasimow
SIGNATURE:	David Gerasimow
DATE SIGNED:	08/15/2024
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 2
source=SDTL Palisade Assignment#page1.tiff
source=SDTL Palisade Assignment#page2.tiff

SDTL PALISADE ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, **SanDisk Technologies LLC**, with a registered address at 7501 N Capital of Texas Hwy, Building A, Suite #100, Austin, TX 78731, ("Assignor"), does hereby assign, transfer and convey unto **Palisade Technologies, LLP**, with an office at 1468 James Rd., Gardnerville, NV 89460, USA, ("Assignee"), all of Assignor's entire right, title and interest in and to all patents and patent applications listed in the attached Schedule A (collectively "Patent Rights").

In addition, Assignor agrees to and hereby does sell, assign, transfer and convey unto Assignee all rights (i) in and to causes of action and enforcement rights for the Patent Rights including all rights to pursue damages, injunctive relief and other remedies for past, present and future infringement of the Patent Rights, (ii) the right to apply (or continue prosecution) in any and all countries of the world for patents, design patents, utility models, certificates of invention or other governmental grants for the Patent Rights, including under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement or understanding, and (iii) the rights, if any, to revive prosecution of any abandoned Patent Rights.

Assignor also hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents or certificates of invention or equivalent which may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

The terms and conditions of this Assignment shall inure to the benefit of Assignee, its successors, assigns and other legal representatives, and shall be binding upon Assignor, its successor, assigns and other legal representatives.

This assignment is made effective as of: August 7, 2024.

IN WITNESS WHEREOF, this Assignment of Patent Rights is executed at Sandy, UT, USA on 8/12/24.

ASSIGNOR SanDisk Technologies LLC,

By: _____

Name: David Dutcher
Title: VP, Chief IP and Licensing Counsel

STATE OF Utah)
) ss.
COUNTY OF Salt Lake)

On 08-12-2024 before me,

R. Scott Siler *Notary Public*

Personally appeared David Dutcher, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of Utah that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

R SCOTT SILER
Notary Public State of Utah
My Commission Expires on:
October 10, 2025
Comm. Number: 720245

R. Scott Siler
Notary Public

Petitioner Micron Ex-1004, 0011

SCHEDULE TO ASSIGNMENT

Country	Patent/Publication Number	Application Number
US	9,530,716	13/452,767
KR	10-1774059	2011-7028490
US	8,148,962	12/464,301
CN	ZL201380072287.2	201380072287.2
US	9,501,398	13/831,218
US	9,448,876	14/454,667
US	9,454,448	14/454,672
US	8,327,051	11/986,389
US	9,466,383	14/144,056
US	9,281,314	14/511,834
US	8,996,838	14/273,031
TW	TW201606496	104112604
CN	ZL201510626779.2	201510626779.2
DE	102015116905	102015116905.3
US	9,373,408	14/508,274
US	9,524,974	14/806,111
US	9,349,458	14/515,762
US	7,743,258	11/511,766
US	8,135,961	12/760,359

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	12/04/2012	8327051	10519-226	2143

67813 7590 11/14/2012

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

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 Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Myeong Joon Kang, San Ramon, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

Petitioner Micron Ex-1004, 0013

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	**Art Unit**
	ERIC OBERLY	2184

ORIGINAL		INTERNATIONAL CLASSIFICATION										
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED					
710	74	G	0	6	F	13 / 12 (2006.01.01)						
CROSS REFERENCE(S)		G	0	6	F	13 / 38 (2006.01.01)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)											

Change(s) applied to document,
/M.I.G./
10/3/2012

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

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		17	20	33										
	2		18	21	34										
	3		19	18 ~~22~~	35										
	4		20		36										
	5		21	23	37										
	6	9	22	24	38										
	7	10	23	25	39										
1	8	11	24	26	40										
2	9	12	25	27	41										
3	10	13	26												
4	11	14	27												
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7	14	17	30												
8	15	22 ~~18~~	31												
	16	19	32												

/ERIC OBERLY/ Examiner.Art Unit 2184	7/19/2012	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	27	
/HENRY TSAI/ Supervisory Patent Examiner.Art Unit 2184	07/24/2012	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Petitioner Micron Ex-1004, 0014

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

67813 7590 08/07/2012
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

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 ELECTRONIC FILING
I hereby certify that this correspondence is being filed electronically with the U.S. Patent and Trademark Office on the below date:

Amir N. Penn	(Depositor's name)
	(Signature)
November 2, 2012	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

TITLE OF INVENTION: PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	~~$1740~~ $1770	$300	$0	~~$2040~~ $2070	11/07/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
OBERLY, ERIC T	2184	710-074000

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/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form 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 Brinks Hofer Gilson & Lione
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 has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: SanDisk Technologies Inc.

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Plano, Texas

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

4a. The following fee(s) are submitted:
- ☒ Issue Fee
- ☒ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number 23-1925 (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date November 2, 2012

Typed or printed name Amir N. Penn Registration No. 40,767

This collection of information 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 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, 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.

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Petitioner Micron Ex-1004, 0015

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: November 2, 2012 Name: Amir N. Penn, Reg. No. 40,767 Signature:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang		
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	Conf. No.:	2143
Attorney Docket No.:	10519-226		

COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Statement of Reasons for Indication of Allowable Subject Matter in the Office Action mailed August 7, 2012, Applicant submits the following comments.

Reasons for allowance are only warranted in instances in which "the record of the prosecution as a whole does not make clear the Examiner's reasons for allowing a claim or claims". 37 C.F.R. 1.104(e). In the present case, Applicant believes the record as a whole makes clear the reasons for allowance and therefore no statement by the Patent Office is necessary or warranted. Therefore, the record should reflect that Applicant does not necessarily agree with the statement that the claims are in condition for allowance based solely on the failure of the cited references to disclose the limitations recited in the claims. Specifically, the Reasons for Allowance lists all of the limitations from claim 8 (and bolds certain limitations), and states that the prior art does not teach or suggest "a memory card with a plurality of unique position ports;

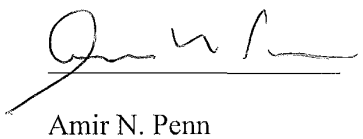
Petitioner Micron Ex-1004, 0016

as disclosed by the following claimed subject matter of independent claim 8". Applicant respectfully does not necessarily agree that each of the limitations (or the bolded limitations) is necessary to distinguish over the cited art. Applicant thus submits that other distinctions between one or more of the claims and cited art, in addition to, or instead of, the ones provided by the Examiner's reasons for allowance, may exist.

Therefore, Applicant hereby submits these Comments in an effort to ensure that the claims are properly construed based only upon limitations that are actually present therein and/or to ensure that the claims are not interpreted so as to include any additional claim limitations that are not found in the respective claims.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned.

Respectfully submitted,



Amir N. Penn
Attorney for Applicant
Registration No. 40,767

BRINKS HOFER GILSON & LIONE
P.O. Box 10395
Chicago, Illinois 60610
(312) 321-4200
Dated: November 2, 2012

Petitioner Micron Ex-1004, 0017

Electronic Patent Application Fee Transmittal

Application Number:	11986389
Filing Date:	20-Nov-2007
Title of Invention:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH
First Named Inventor/Applicant Name:	Myeong Joon Kang
Filer:	Amir N. Penn/Consuelo Henry
Attorney Docket Number:	10519-226

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

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	1501	1	1770	1770
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**2070**

Electronic Acknowledgement Receipt	
EFS ID:	14139545
Application Number:	11986389
International Application Number:	
Confirmation Number:	2143
Title of Invention:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH
First Named Inventor/Applicant Name:	Myeong Joon Kang
Customer Number:	67813
Filer:	Amir N. Penn/Joel Silva
Filer Authorized By:	Amir N. Penn
Attorney Docket Number:	10519-226
Receipt Date:	02-NOV-2012
Filing Date:	20-NOV-2007
Time Stamp:	17:38:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$2070
RAM confirmation Number	4802
Deposit Account	231925
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)	
Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)	
Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		10519-226IssueFeePayment.pdf	167338 716fc97999ff883a62ec6a4fb6ed96727fcf1b9c	yes	4

Multipart Description/PDF files in .zip description		
Document Description	**Start**	**End**
Transmittal Letter	1	1
Issue Fee Payment (PTO-85B)	2	2
Post Allowance Communication - Incoming	3	4

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	32045 46eaa33e9adb338a54d68e904e1d342a01a79fca	no	2

Warnings:

Information:

Total Files Size (in bytes):	199383

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.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: November 2, 2012 Name: Amir N. Penn, Reg. No. 40,767 Signature:

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang		
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	Conf. No.:	2143

Attorney Docket No.: 10519-226

TRANSMITTAL

Mail Stop Issue Fee
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Transmittal (1 pg); Comments on Reasons for Allowance (2 pgs); Part B - Fee(s) Transmittal (1 pg).

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a _____-month extension of time under 37 CFR § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 CFR § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

					Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus			x $31=			x $62=	
Indep.		Minus			x 125=			x $250=	
First Presentation of Multiple Dep. Claim					+$230=			+ $460=	
					Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $2,070.00 for issue and publication fee.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).
WARNING: Information on this form may become public. **Credit card information should not be included on this form.**

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

November 2, 2012
Date

Amir N. Penn (Reg. No. 40,767)

BRINKS HOFER GILSON & LIONE
NBC Tower – Suite 3600, 455 N. Cityfront Plaza Drive, Chicago, IL 60611-5599

BRINKS HOFER GILSON &LIONE

UNITED STATES PATENT AND TRADEMARK OFFICE

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

NOTICE OF ALLOWANCE AND FEE(S) DUE

67813 7590 08/07/2012
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER
OBERLY, ERIC T

ART UNIT	PAPER NUMBER
2184	

DATE MAILED: 08/07/2012

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

TITLE OF INVENTION: PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1740	$300	$0	$2040	11/07/2012

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 SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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 and an extra copy of the form should be submitted. 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: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

Petitioner Micron Ex-1004, 0023

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

67813 7590 08/07/2012
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

TITLE OF INVENTION: PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1740	$300	$0	$2040	11/07/2012

EXAMINER	ART UNIT	CLASS-SUBCLASS
OBERLY, ERIC T	2184	710-074000

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/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form 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 has been filed for recordation as set forth in 37 CFR 3.11. 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. The following fee(s) are submitted:

❑ Issue Fee

❑ Publication Fee (No small entity discount permitted)

❑ Advance Order - # of Copies _____

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

❑ A check is enclosed.

❑ Payment by credit card. Form PTO-2038 is attached.

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

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

❑ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

❑ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information 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 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, 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.

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Petitioner Micron Ex-1004, 0024

UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 08/07/2012

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

DATE MAILED: 08/07/2012

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

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

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 Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Petitioner Micron Ex-1004, 0025

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.	Applicant(s)	
	11/986,389	KANG, MYEONG JOON	
	Examiner	Art Unit	
	ERIC OBERLY	2184	

-- 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 *7/16/2012*.
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 *8-15, 22-35, and 37-41 (renumbered 1-27)*.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   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. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ 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).
7. ☐ 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. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *20120719* .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/Eric T Oberly/ Examiner, Art Unit 2184	/Henry W.H. Tsai/ Supervisory Patent Examiner, Art Unit 2184

Petitioner Micron Ex-1004, 0027

Examiner-Initiated Interview Summary	Application No.	Applicant(s)	
	11/986,389	KANG, MYEONG JOON	
	Examiner	Art Unit	
	ERIC OBERLY	2184	

All participants (applicant, applicant's representative, PTO personnel):

(1) *ERIC OBERLY*. (3)_____.

(2) *Amir N. Penn (Reg. No. 40,767)*. (4)_____.

Date of Interview: *16 July 2012*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☒102 ☐103 ☒Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *8,22 and 29*.

Identification of prior art discussed: *N/A*.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

The examiner and Mr. Penn discussed the filing of the after final amendments to clarify the position of the memory card ports and the corresponding connections. The amendments appear to place the application in condition for allowance, and the examiner agreed to conduct an updated search on prior art and submit, pending updated search results, the application for allowance review and approval.

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.

☐ Attachment

/Eric T Oberly/ Examiner, Art Unit 2184	

Petitioner Micron Ex-1004, 0028

DETAILED ACTION

This action is responsive to Applicant's response filed 16 July 2012.

After a thorough search and examination of the present application, claims 8-15, 22-35, and 37-41 (renumbered claims 1-27) are allowed.

Allowable Subject Matter

Claims 8-15, 22-35, and 37-41 (renumbered claims 1-27) are allowed.

The following is an Examiner's statement of reasons for allowance:

Based on the amendments filed 16 July 2012 which further clarified the subject matter of independent claims 8, 22 and 29, a thorough search for prior arts on EAST database and on domains (NPL-ACM, Google, NPL-IEEE) has been conducted. The prior art searched and investigated in the database and domains does not fairly teach or suggest the teaching of a memory card with a plurality of unique position ports; as disclosed by the following claimed subject matter of independent claim 8:

A portable handheld memory card comprising:

a Universal Serial Bus (USB) port comprising a first set of pins;

USB controller circuitry electrically connected with the first set of pins of the USB port;

an input/output (I/O) port comprising a second set of pins;

I/O controller circuitry electrically connected with the second set of pins of the I/O port;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port;

wherein the USB port and the I/O port are positioned on a same end to allow a same card- insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port; and

wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.

Independent claims 22 and 29 are also distinct from the prior art for the same reason, dependent claims 9-15, 23-25 and 38-41 are directly dependent from claims 8, 22 and 29 and are therefore distinct from the prior art.

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.”

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. OBERLY whose telephone number is (571)272-6991. The examiner can normally be reached on Monday - Friday 7:30 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. 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.

/E. T. O./

/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

SEARCHED			
Class	Subclass	Date	Examiner
710	74	7/19/2012	EO

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	6/25/2009	Eric Oberly
EAST 710/74 String Search	6/25/2009	Eric Oberly
IDS Search	6/25/2009	Eric Oberly
Google Scholar Search: Memory Card USB port	6/26/2009	Eric Oberly
Google Scholar Search: multiple interface protocol memory card	11/23/2009	Eric Oberly
Updated EAST Search	11/24/2009	Eric Oberly
EAST 710/74 String Search	9/15/2010	Eric Oberly
NPL Search: Google and ACM Digital Library	9/15/2010	Eric Oberly
EAST 710/72 string search	2/11/2012	EO
NPL Search: Google, ACM DL	2/11/2012	EO
EAST string search to include: (memory near card) multiple ("I/O") port interface determine USB same side pin set electrically connect$3 insertion direction mating	7/19/2012	EO
NPL search of databases: Google, IEEE Xplore, ACM DL	7/19/2012	EO

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
710	74	7/19/2012	EO

Petitioner Micron Ex-1004, 0032

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Google [redacted] Search

Search 2 results (0.18 seconds)

Web
Images
Maps
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News
Shopping
More

Alexandria, VA
Change location

Show search tools

Electronic card with multiple interfaces - Free Patents Online
www.freepatentsonline.com/y2003/0233507.html
Dec 18, 2003 – 1 , the **memory card with multiple interfaces** includes a CF interface connection port 11 , a CF interface 12 , a card loading detection device 13 ...

Memory card with two standard sets of contacts and a contact - PriorIP
www.prior-ip.com/patent/A6300273/
DE 20304040 (U1). **Memory card with multiple interfaces** and memory control chip with capacity for double interface to memory interface and to USB or ...

Ad related to "memory card with multiple interfaces" Why this ad?

MicroSD Memory Sale
www.newegg.com/
Shop for MicroSD Memory at Newegg. Our Mind Blowing Deals won't last!

In order to show you the most relevant results, we have omitted some entries very similar to the 2 already displayed.
If you like, you can repeat the search with the omitted results included.

Advanced search Search Help Give us feedback

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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	**Art Unit**
	ERIC OBERLY	2184

ORIGINAL		INTERNATIONAL CLASSIFICATION										
CLASS	SUBCLASS	CLAIMED					NON-CLAIMED					
710	74	G	0	6	F	13 / 12 (2006.01.01)						
CROSS REFERENCE(S)		G	0	6	F	13 / 38 (2006.01.01)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)											

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

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
	1		17	20	33										
	2		18	21	34										
	3		19	22	35										
	4		20		36										
	5		21	23	37										
	6	9	22	24	38										
	7	10	23	25	39										
1	8	11	24	26	40										
2	9	12	25	27	41										
3	10	13	26												
4	11	14	27												
5	12	15	28												
6	13	16	29												
7	14	17	30												
8	15	18	31												
	16	19	32												

/ERIC OBERLY/ Examiner.Art Unit 2184	7/19/2012	**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	27	
/HENRY TSAI/ Supervisory Patent Examiner.Art Unit 2184	07/24/2012	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	1

Petitioner Micron Ex-1004, 0034

OK TO ENTER: /E.O./

07/29/2012

I hereby certify that this correspondence is being electronically transmitted on the date noted below to:

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450
July 16, 2012

Date of Deposit

Amir N. Penn (Reg. No. 40,767)

Name of applicant, assignee or
Registered Representative

Signature
July 16, 2012

Date of Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.: 2143
Appln. No.:	11/986,389	Examiner: Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit: 2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	
Attorney Docket No:	10519-226 (SDA-1240-US)	

RESPONSE TO FINAL OFFICE ACTION OF FEBRUARY 14, 2012

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

In response to the Final Office Action mailed February 14, 2012, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks begin on page 8 of this paper.

OK TO ENTER: /E.O./

07/29/2012

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	353	(memory near card) multiple port interface determine USB same side pin set	US-PGPUB; USPAT	AND	ON	2012/07/19 19:58
L2	123	(memory near card) multiple port interface determine USB same side pin set electrically connect$3	US-PGPUB; USPAT	AND	ON	2012/07/19 20:48
L3	14	(memory near card) multiple ("I/O") port interface determine USB same side pin set electrically connect$3 insertion direction mating	US-PGPUB; USPAT	AND	ON	2012/07/19 20:49
L6	1	("20030233507").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/07/19 21:33
S1	2	kang-myeong.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:50
S2	1	11/986389.app.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:51
S4	7	kang-myeong-joon.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:52
S5	745	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/06/25 17:42
S7	20	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/06/25 17:43
S8	13	("20020147882" | "6216230" | "6654841" | "6763399" | "6772233" | "7011247" | "7039759" | "7039780").PN. OR ("7296098").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 18:32
S10	19	("6808424" | "6813164" | "6890188" | "6908038" | "6944028").PN. OR ("7104809").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:34
S12	34	("20030095386" | "20030100203" | "20040033727" | "20040087194" | "20050230483" | "20050230484" | "20060084287" | "20060208066" | "20060273154" | "20060278723" | "20070145135" | "5818030" | "6116927" | "6375479" | "6381143" | "6385677" | "6427837" | "6439900" | "6561421" | "6567273" | "6676419" | "6676420" | "6763410" | "6792487" | "6824066" | "6854984" | "6883718" | "6890188" | "6908038" | "6993618" | "7004794" | "7009847" | "7025275").PN. OR ("7344072").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:37

Petitioner Micron Ex-1004, 0036

S15	2	10/826796.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 21:04
S18	27	("4380699" | "4581716" | "4649418" | "5184209" | "5244840" | "5272374" | "5299046" | "5450366" | "5455785" | "5736782" | "5861662" | "5877547" | "6262915").PN. OR ("6501163").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 10:37
S22	10	("5036429" | "5091856" | "5180906").PN. OR ("5396617").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:10
S24	19	("5613092" | "5651116" | "5819050" | "5835864" | "5867795" | "5875415" | "5938750" | "5954808" | "6014748" | "6032135").PN. OR ("6192436").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:21
S28	2	("6067199" | "6654851").PN. OR ("7433994").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:52
S31	1	10/425899.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 14:03
S33	14	(US-20050216624-$ or US-20020049887-$ or US-20060084287-$ or US-20020186842-$ or US-20040083378-$).did. or (US-7162549-$ or US-7296098-$ or US-7011247-$ or US-6216230-$ or US-7104809-$ or US-7344072-$ or US-7491076-$ or US-6669487-$ or US-7433994-$).did.	US-PGPUB; USPAT	OR	ON	2009/06/26 14:48
S34	15	(("7104809") or ("7344072") or ("20060084287") or ("6748485") or ("6501163") or ("6669487") or ("6820148") or ("5396617") or ("6192436") or ("5996033") or ("7090124") or ("7433994") or ("20040083378") or ("20020186842") or ("20050063540")).PN.	US-PGPUB; USPAT	OR	OFF	2009/06/27 16:04
S35	1	"20040182938".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:41
S36	1	"7237049".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:49
S38	1	"20050086408".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:51
S39	1	"20080071940".pn.	US-PGPUB; USPAT	OR	ON	2009/11/23 17:12
S40	2	(("7062585") or ("7152801")).PN.	US-PGPUB; USPAT	OR	OFF	2009/11/23 17:24
S41	82	("20010009505" | "20030100203" | "20030212848" | "20030233507" | "20040033726" | "20040033727" | "20040039854" | "20040089717" | "20050037647" | "4555619" | "5155663" | "5457601" | "5486687" | "5752857" | "5815426"	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/23 17:41

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		| "5887145" | "5969333" | "5984708" | "6040622" | "6069795" | "6097605" | "6121681" | "6137710" | "6151652" | "6181564" | "6243686" | "6256692" | "6266724" | "6279114" | "6295206" | "6325291" | "6330151" | "6341728" | "6353870" | "6381143" | "6385677" | "6422469" | "6435409" | "6438638" | "6439464" | "6483038" | "6518927" | "6524137" | "6561421" | "6567273" | "6580615" | "6590615" | "6612498" | "6617673" | "6623304" | "6632097" | "6646885" | "6669487" | "6676420" | "6733340" | "6738259" | "6763410" | "6820148" | "6890188" | "6901457" | "6908038" | "D444473" | "D445111" | "D446525").PN. OR ("7152801").URPN.				
S42	785	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/11/24 12:33
S43	21	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:33
S44	26925	(memory near card)(multiple)(port)(interface)(determine)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:34
S45	19438	(memory near card)(multiple)(port)(interface)(determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:35
S46	800	(memory near card)(multiple near (port or interface))(determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:35
S47	85	(memory near card)(multiple near (port or interface))(detector)(determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:36
S48	101	(memory near card)(multiple near (port or interface))(detector)(determine)(USB)	US-PGPUB; USPAT	AND	ON	2010/09/15 12:29
S49	900	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2010/09/15 12:31
S50	15	(("7287703") or ("20040177215") or ("20050114587") or ("20050251609") or ("20080270663") or ("7171502") or ("7039759") or ("6233640") or ("20070223705") or ("7184274") or ("7708195") or ("7184274") or ("5623637") or ("20060177064") or ("7376773") or ("20030515848")).PN. or (11/771752).APP.	US-PGPUB; USPAT	OR	OFF	2010/09/15 12:41
S51	13	("20030046472" | "20040070952" | "6168077" | "6439464" | "6557754" | "6663007" | "6796501" | "6851014" | "6857038" | "7171502" | "7191270").PN. OR ("7376773").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2010/09/15 12:45
S52	27	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2010/09/15 12:47
S53	11	(US-20050063540-$ or US-20080071940-$ or US-20040177215-$ or US-20040255054-$ or US-20070223705-$ or US-20060177064-$ or US-20040070952-$).did. or (US-7287703-$ or US-7433994-$ or US-7708195-$ or US-7376773-$).did.	US-PGPUB; USPAT	OR	ON	2010/09/15 12:51

Petitioner Micron Ex-1004, 0038

S54	0	(2008/0191034).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/02/11 11:49
S55	1	("20080191034").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/02/11 11:50
S56	1077	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2012/02/11 12:49
S57	39	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2012/02/11 12:49
S58	1	(12/818342).APP.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/02/23 11:59

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L4	1137	710/74.ccls.	US-PGPUB; USPAT; UPAD	OR	ON	2012/07/19 21:13
L5	14	(memory near card) multiple ("I/O") port interface determine USB same side pin set electrically connect$3 insertion direction mating	US-PGPUB; USPAT; UPAD	AND	ON	2012/07/19 21:27

7/19/2012 9:40:52 PM
C:\Users\eoberly\Documents\EAST\Workspaces\11986389.wsp

Petitioner Micron Ex-1004, 0039

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010	03/14/2011	02/11/2012	07/19/2012			
	1	✓	-	-	-	-	-			
	2	✓	-	-	-	-	-			
	3	✓	-	-	-	-	-			
	4	✓	-	-	-	-	-			
	5	✓	-	-	-	-	-			
	6	✓	-	-	-	-	-			
	7	✓	-	-	-	-	-			
1	8	✓	✓	✓	✓	✓	=			
2	9	✓	✓	✓	✓	✓	=			
3	10	✓	✓	✓	✓	✓	=			
4	11	✓	✓	✓	✓	✓	=			
5	12	✓	✓	✓	✓	✓	=			
6	13	✓	✓	✓	✓	✓	=			
7	14	✓	✓	✓	✓	✓	=			
8	15	✓	✓	✓	✓	✓	=			
	16	✓	-	-	-	-	-			
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	19	✓	-	-	-	-	-			
	20	✓	-	-	-	-	-			
	21	✓	-	-	-	-	-			
9	22	✓	✓	✓	✓	✓	=			
10	23	✓	✓	✓	✓	✓	=			
11	24	✓	✓	✓	✓	✓	=			
12	25	✓	✓	✓	✓	✓	=			
13	26	✓	✓	✓	✓	✓	=			
14	27	✓	✓	✓	✓	✓	=			
15	28	✓	✓	✓	✓	✓	=			
16	29	✓	✓	✓	✓	✓	=			
17	30	✓	✓	✓	✓	✓	=			
18	31	✓	✓	✓	✓	✓	=			
19	32	✓	✓	✓	✓	✓	=			
20	33	✓	✓	✓	✓	✓	=			
21	34	✓	✓	✓	✓	✓	=			
22	35		✓	✓	✓	✓	=			
	36				✓	-	-			

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	**Art Unit**
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010	03/14/2011	02/11/2012	07/19/2012			
23	37				✓	✓	=			
24	38				✓	✓	=			
25	39				✓	✓	=			
26	40					✓	=			
27	41					✓	=			

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CONTENT TYPE

Conference Publications (1)

Journals & Magazines (1)

PUBLICATION YEAR

Single Year Range

2006 2010

From: 2006

To: 2010

AUTHOR

Shin, I. (1)

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Moncef Tagina (1)

Boutheina Chetali (1)

AFFILIATION

PUBLICATION TITLE

TOPIC

CONFERENCE LOCATION

SEARCH RESULTS

You searched for: memory card , USB , interfaces , multiple

2 Results returned

Sort by: Relevance

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1. Wrapping and Integrating USB Smart Card to Web Based Heterogeneous Medical Databases: Application for the Pathology of Cancer

Walid Attiaoui, Mohamed Ben Ahmed, Moncef Tagina; Boutheina Chetali

Electrical and Computer Engineering, 2006. CCECE '06. Canadian Conference on

Digital Object Identifier: 10.1109/CCECE.2006.277392

Publication Year: 2006 , Page(s): 1403 - 1408

IEEE CONFERENCE PUBLICATIONS

Quick Abstract | PDF (95 KB)

2. Light weight sector mapping scheme for NAND-based block devices

Shin, I.

Consumer Electronics, IEEE Transactions on

Volume: 56 , Issue: 2

Digital Object Identifier: 10.1109/TCE.2010.5505980

Publication Year: 2010 , Page(s): 651 - 656

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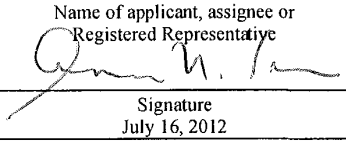
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Commissioner for Patents
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Alexandria, VA 22313-1450
July 16, 2012

Date of Deposit

Amir N. Penn (Reg. No. 40,767)

Name of applicant, assignee or
Registered Representative



Signature
July 16, 2012

Date of Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.: 2143
Appln. No.:	11/986,389	Examiner: Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit: 2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	
Attorney Docket No:	10519-226 (SDA-1240-US)	

RESPONSE TO FINAL OFFICE ACTION OF FEBRUARY 14, 2012

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

In response to the Final Office Action mailed February 14, 2012, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks begin on page 8 of this paper.

AMENDMENTS TO THE CLAIMS:

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

Listing of Claims

1. - 7. (Cancelled)

8. (Currently Amended) A portable handheld memory card comprising:

a Universal Serial Bus (USB) port comprising a first set of pins;

USB controller circuitry electrically connected with the first set of pins of the USB port;

an input/output (I/O) port comprising a second set of pins;

I/O controller circuitry electrically connected with the second set of pins of the I/O port;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port[[,]];

wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port;[[,]] and

~~wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry~~

wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.

9. (Original) The portable handheld memory card of Claim 8 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

10. (Original) The portable handheld memory card of Claim 8 further comprising:

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decompression circuitry configured to decompress compressed data stored in the memory.

11. (Original) The portable handheld memory card of Claim 8 further comprising:
a power management unit in communication with the USB controller circuitry.

12. (Original) The portable handheld memory card of Claim 8 further comprising:
a host interface module in communication with the I/O port.

13. (Original) The portable handheld memory card of Claim 8 further comprising:
circuitry configured to control read and write operations to the memory.

14. (Original) The portable handheld memory card of Claim 8, wherein the I/O port comprises a Secure Digital port.

15. (Original) The portable handheld memory card of Claim 8, wherein the memory comprises Flash memory.

16. - 21. (Cancelled)

22. (Currently Amended) A method comprising:
with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry electrically connected with the first set of pins of the USB port; an input/output (I/O) port comprising a second set of pins; I/O controller circuitry electrically connected with the second set of pins of the I/O port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and ~~wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry~~ wherein the

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USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device:

reading compressed data from the memory

decompressing the compressed data to decompressed data;

transmitting the decompressed data on the I/O port;

converting the compressed data to first converted data for transmission on the USB port; and

transmitting the first converted data on the USB port.

23. (Original) The method of Claim 22 further comprising:

reading encrypted data from the memory;

decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

24. (Original) The method of Claim 22 further comprising:

converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

25. (Original) The method of Claim 22 further comprising:

converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

26. (Original) The method of Claim 22 further comprising: controlling reading and writing to the memory.

27. (Original) The method of Claim 22, wherein the I/O port comprises a Secure

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Digital port.

28. (Original) The method of Claim 22, wherein the memory comprises Flash memory.

29. (Currently Amended) A method comprising:

with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry electrically connected with the first set of pins of the USB port; an input/output (I/O) port comprising a second set of pins; I/O controller circuitry electrically connected with the second set of pins of the I/O port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and ~~wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry~~ wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device:

reading data from the memory;

determining whether the data is to be transmitted via the USB port or I/O port; and

transmitting the data to the host device via the determined port.

30. (Previously Presented) The method of Claim 29, wherein the data is encrypted data, and wherein the method further comprises:

decrypting the encrypted data to decrypted data.

31. (Previously Presented) The method of Claim 35 further comprising:

converting the compressed data to first converted data for transmission.

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32. (Previously Presented) The method of Claim 35 further comprising:

converting the decompressed data to second converted data for transmission.

33. (Original) The method of Claim 29, wherein the I/O port comprises a Secure Digital port.

34. (Original) The method of Claim 29, wherein the memory comprises Flash memory.

35. (Previously Presented) The method of Claim 29, wherein the data is compressed data, and wherein the method further comprises:

decompressing the compressed data to decompressed data.

36. (Cancelled)

37. (Previously Presented) The portable handheld memory card of Claim 8, wherein at least two pins of the USB port are parallel to at least two pins of the I/O port.

38. (Previously Presented) The portable handheld memory card of Claim 8, wherein layout for the USB port is different from layout of the I/O port.

39. (Previously Presented) The portable handheld memory card of Claim 38, wherein the I/O port is configured for mating with an external port.

40. (Previously Presented) The portable handheld memory card of Claim 8, wherein all of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry.

41. (Previously Presented) The portable handheld memory card of Claim 8, wherein

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the USB port comprises multiple data lines;

wherein the first set of pins comprise multiple data pins connected to the multiple data lines; and

wherein all of the multiple data pins are not electrically connected to the I/O controller circuitry.

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REMARKS

I. Office Action Summary

Claims 8-15 and 22-35, and 37-41 are pending. Claims 8, 22 and 29 are independent claims.

II. Interview Summary

Applicants sincerely thank the Examiner for the courtesy of an interview. The comments below are in furtherance of the interview.

III. Rejections under 35 U.S.C. §§ 102, 103

Claims 8, 11-13, 15, 29, 34 and 37-41 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kim et al. (U.S. Patent No. 7,376,773). Claims 14 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim. Claims 9 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Holtzman et al. (U.S. Publication No. 2006/0177064). Claims 10, 22, 25-28, 31, 32, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Petersen et al. (U.S. Patent No. 7,433,994). Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Petersen, and further in view of Holtzman. Claim 24 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Petersen, and further in view of Liu et al. (U.S. Publication No. 2003/0212848).

Claim 8:

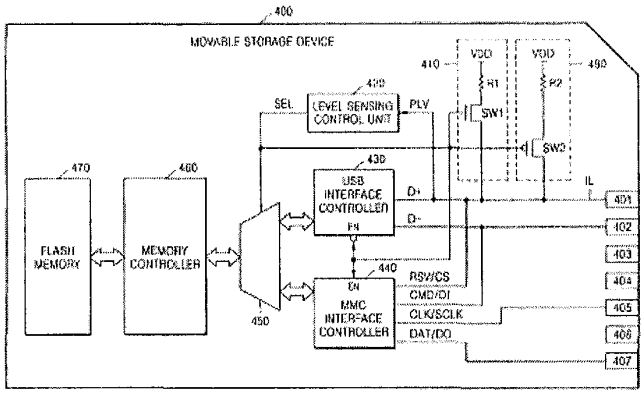
Claim 8 recites in part:

> wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device

The Office Action rejects claim 8 as anticipated by Kim. Figure 8 of Kim is reproduced below:

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FIG. 8



As shown, Kim includes a USB interface controller that is connected to pins 401 and 402 and a MMC interface controller that is connected to pins 401, 402, 405, and 407. Of note, each of the pins that are input to the USB interface controller are input to the MMC controller. In other words, pins 401 and 402 are input to both the USB interface controller and the MMC interface controller.

In contrast, claim 8 recites "wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device." An example of this is disclosed in Figure 1 of the present application (reproduced below):

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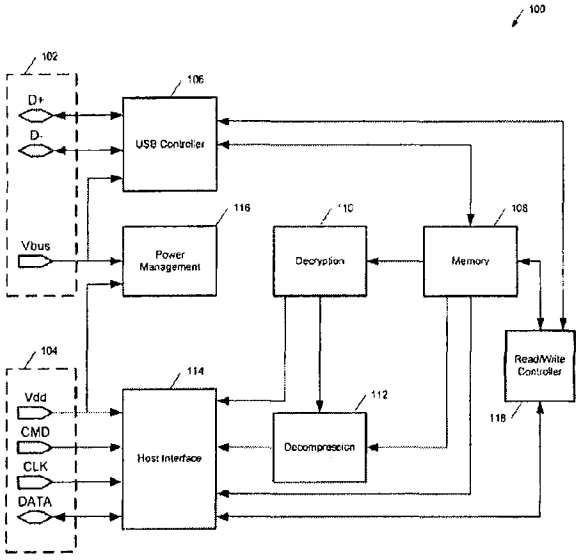


Figure 1

As shown in Figure 1, the data line inputs (D+ and D-) to the USB controller are not input to the Host Interface 114. This may allow the pin layout for the USB port to be different from the pin layout for the SD port. In other words, the card as claimed may choose a pinout for the USB port that does not need to be forced into a particular layout (which may not be compatible with USB standards) in order to conform with the pinout of the second port. Thus, for at least the reasons cited, claim 8 is patentable over the cited art. Further, claims 9-15 and 37-41 are patentable at least by virtue of their dependence on allowable claim 8.

Claim 22:

Claim 22 recites in part:

> wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.

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As discussed above, Kim fails to teach or suggest these limitations. Thus, for at least the reasons cited, claim 22 is patentable over the cited art. Further, claims 23-28 are patentable at least by virtue of their dependence on allowable claim 22.

Claim 29:

Claim 29 recites in part:

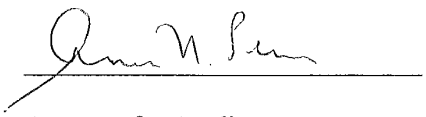
> wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, at least one of the first set of pins of the USB port is not electrically connected to the host device, and when the USB port is electrically connected to the host device, at least one of the second set of pins of the I/O port is not electrically connected to the host device.

As discussed above, Kim fails to teach or suggest these limitations. Thus, for at least the reasons cited, claim 29 is patentable over the cited art. Further, claims 30-35 are patentable at least by virtue of their dependence on allowable claim 29.

SUMMARY

Applicant respectfully requests the Examiner to grant allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0055

Electronic Patent Application Fee Transmittal

Application Number:	11986389
Filing Date:	20-Nov-2007
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Filer:	Steven P. Shurtz
Attorney Docket Number:	10519-226

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

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:				
Extension - 2 months with $0 paid	1252	1	560	560

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**560**

Electronic Acknowledgement Receipt	
EFS ID:	13261515
Application Number:	11986389
International Application Number:	
Confirmation Number:	2143
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Customer Number:	67813
Filer:	Steven P. Shurtz/Masoud Naseri
Filer Authorized By:	Steven P. Shurtz
Attorney Docket Number:	10519-226
Receipt Date:	16-JUL-2012
Filing Date:	20-NOV-2007
Time Stamp:	17:24:50
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$560
RAM confirmation Number	4680
Deposit Account	231925
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1		10519-226-Response-Extension071612.pdf	413473 296dee1648a515d25be0ca259fca6e00a91b829a	yes	14

	Multipart Description/PDF files in .zip description		
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	Extension of Time	2	3
	Amendment After Final	4	4
	Claims	5	10
	Applicant Arguments/Remarks Made in an Amendment	11	14

Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30108 823dce87a50b311fdc4357c44a1df563e6adebb4	no	2
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New International Application Filed with the USPTO as a Receiving Office
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Date: July 16, 2012 Name: Amir N. Penn (Reg. No. 40,767) Signature: Amir N. Penn

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.:	2143
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH		

Attorney Docket No: 10519-226 (SDA-1240-US)

TRANSMITTAL

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Transmittal (1 pg); Response to Final Office Action of February 14, 2012 (11 pgs); Petition and Fee for Extension of Time (2 pgs).

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☒ An extension fee in an amount of $560.00 for a two-month extension of time under 37 CFR § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 CFR § 1.17(_____).

☐ An additional filing fee has been calculated as shown below:

						Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra		Rate	Add'l Fee	OR	Rate	Add'l Fee
Total	27	Minus	35	0		x $30=			x $60=	
Indep.	3	Minus	3	0		x 125=			x $250=	
First Presentation of Multiple Dep. Claim						+$225=			+ $450=	
						Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $560.00 for two-month extension.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

July 16, 2012
Date

Amir N. Penn (Reg. No. 40,767)

BRINKS HOFER GILSON & LIONE
NBC Tower – Suite 3600, 455 N. Cityfront Plaza Drive, Chicago, IL 60611-5599

BRINKS HOFER GILSON &LIONE

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: July 16, 2012 Name: Amir N. Penn (Reg. No. 40,767) Signature: /Amir N. Penn/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.:	2143
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH		
Attorney Docket No:	10519-226 (SDA-1240-US)		

PETITION AND FEE FOR EXTENSION OF TIME (37 CFR § 1.136(a))

Mail Stop AF
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a petition for an extension of the time to respond to Final Office Action dated February 14, 2012 for a period of 2 month(s).

Applicant is: ☐ small entity (per 37 CFR 1.27) ☒ other than small entity

	Extension Months	Other Than Small Entity	Small Entity
☐	One Month	$150.00	$75.00
☒	Two Months	$560.00	$280.00
☐	Three Months	$1,270.00	$635.00
☐	Four Months	$1,980.00	$990.00
☐	Five Months	$2,690.00	$1,345.00

Payment Method:

☐ Payment by credit card in the amount of $_____ to cover the fees listed above. Form PTO-2038 is enclosed for this purpose.

☒ The Commissioner is hereby authorized to charge $560.00 to cover the fees listed above to Deposit Account No. 23-1925.

☒ The Commissioner is hereby authorized to charge any deficiencies in fees or credit overpayment to Deposit Account No. 23-1925.

Respectfully submitted,

Dated: July 16, 2012

Amir N. Penn, Reg. No. 40,767
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
PO BOX 10395
CHICAGO, IL 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0063

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/986,389	11/20/2007	

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			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 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			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT 07/16/2012	(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 ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 27	Minus	** 34	= 0	X $ =		OR	X $60=	0
Independent (37 CFR 1.16(h))	* 3	Minus	***5	= 0	X $ =		OR	X $250=	0
☐ 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	0

AMENDMENT	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
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 number found in the appropriate box in column 1.

Legal Instrument Examiner:
/CURTIS NELLOMS JR/

This collection of information is required by 37 CFR 1.16. 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 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.**

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

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 02/27/2012

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
02/27/2012	PAPER

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.

Petitioner Micron Ex-1004, 0065

Applicant-Initiated Interview Summary	**Application No.**	**Applicant(s)**	
	11/986,389	KANG, MYEONG JOON	
	Examiner	**Art Unit**	
	ERIC OBERLY	2184	

All participants (applicant, applicant's representative, PTO personnel):

(1) *ERIC OBERLY*. (3)_____.

(2) *Amir Penn (Reg. No. 40,767)*. (4)_____.

Date of Interview: *22 February 2012*.

Type: ☒ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☒ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☐102 ☐103 ☒Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: *independent claim 8*.

Identification of prior art discussed: *N/A*.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

The examiner and Mr. Penn discussed the claim language of claim 8 with regards to the possible interpretation of "not electrically connected", the examiner suggested possible claim amendments to further clarify the claim limitation; the possible amendments discussed by the examiner and Mr. Penn included language such as "wherein the USB port and the I/O port are positioned such that when the I/O port is electrically connected with the host device, the at least one of the first set of pins of USB port is not electrically connect to the host device, and when USB port is electrically connected to the host device, the at least one of the second set of pins of the I/O port is not electrically connected to the host device"; however, no formal agreement was made, and Mr. Penn indicated he would discuss the proposed amendments with the client and provide a response to the examiner .

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the 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.

☐ Attachment

/E. O./ Examiner, Art Unit 2184	/Henry W.H. Tsai/ Supervisory Patent Examiner, Art Unit 2184

Petitioner Micron Ex-1004, 0066

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

———

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 02/14/2012

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
02/14/2012	PAPER

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.

Petitioner Micron Ex-1004, 0068

Office Action Summary	Application No.	Applicant(s)	
	11/986,389	KANG, MYEONG JOON	
	Examiner	Art Unit	
	ERIC OBERLY	2184	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 *25 August 2011*.

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) *8-15,22-35 and 37-41* 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) *8-15,22-35 and 37-41* is/are rejected.

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

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

Application Papers

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

11)☐ The drawing(s) filed on _____ 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).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

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

a)☐ All b)☐ Some * c)☐ None of:

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) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Petitioner Micron Ex-1004, 0069

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/25/2011 has been entered.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 11-13, 15, 29, 34 and 37-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US Patent # 7376773), hereinafter referred to as Kim.

Referring to claim 8, Kim teaches a portable handheld memory card (Fig. 8) comprising: a Universal Serial Bus (USB) port comprising a first set of pins (USB interface pins 401 and 402, fig. 8); USB controller circuitry (USB interface controller, fig. 8) electrically connected with the first set of pins of the USB port (When the movable storage device 400 is connected to a USB host, the data pin 401 is used as an input

data signal D+ pin…recognition signal for the USB host generation circuit 480 can be connected to an input line of one of the data pins 402, 405, and 407 when the movable storage device 400 operates in a USB host interface mode and one of the data pins 402, 405, and 407 is used as the input data signal D+ pin; col. 10 line 60 to col. 11 line 15, fig. 8); an input/output (I/O) port comprising a second set of pins (MMC interface pins 402, 405, and 407, fig. 8); I/O controller circuitry (MMC interface controller 440; fig. 8) electrically connected with the second set of pins of the I/O port (when the movable storage device 400 is connected to an MMC host and operates in an SPI mode. Also, the data pin 402 is used as a command CMD pin in the MMC mode, and used as an input data signal DI pin in the SPI mode. Additionally, the data pins 405 and 407 are each used as a clock signal CLK pin and a data signal DAT pin, respectively, in the MMC mode; col. 11, lines 15-25); a memory (flash memory 470, fig. 8) in communication with the USB port and the I/O port (470 connect to both 430 and 440 through 460 and 450; fig. 8); and a housing (movable storage device housing 400, fig 8) storing the memory and exposing the USB port and the I/O port (NOTE: memory contained within and the ports are exposed as the pins), wherein the USB port and the I/O port are positioned on a same end (fig. 8, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction), and wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry (On the other hand, the data pin 401

is not used when the movable storage device 400 is connected to an MMC host and operates in an MMC mode; col. 11, line 15-20).

As to claim 11, Kim teaches a power management unit (level sensing control unit 420, fig. 8) in communication with the USB controller circuitry (level sensing control unit SEL line manages which VDD, 410 or 480, pulls the D+ bus high, and which interface controller, USB or MMC, to enable).

As to claim 12, Kim teaches a host interface module (MMC interface controller 440 fig. 8) in communication with the I/O port.

As to claim 13, Kim teaches circuitry configured to control read and write operations to the memory (memory controller 460, fig. 8).

As to claim 15, Kim teaches the memory comprises Flash memory (flash memory 470, fig. 8).

Referring to claim 29, Kim discloses a method comprising: with a portable handheld memory card (Fig. 8) comprising: a Universal Serial Bus (USB) port comprising a first set of pins (USB interface pins 401 and 402, fig. 8); USB controller (USB interface controller, fig. 8) circuitry electrically connected with the first set of pins of the USB port (When the movable storage device 400 is connected to a USB host, the

data pin 401 is used as an input data signal D+ pin…recognition signal for the USB host generation circuit 480 can be connected to an input line of one of the data pins 402, 405, and 407 when the movable storage device 400 operates in a USB host interface mode and one of the data pins 402, 405, and 407 is used as the input data signal D+ pin; col. 10 line 60 to col. 11 line 15, fig. 8); an input/output (I/O) port comprising a second set of pins (MMC interface pins 402, 405, and 407, fig. 8); I/O controller circuitry (MMC interface controller 440; fig. 8) electrically connected with the second set of pins of the I/O port (when the movable storage device 400 is connected to an MMC host and operates in an SPI mode. Also, the data pin 402 is used as a command CMD pin in the MMC mode, and used as an input data signal DI pin in the SPI mode. Additionally, the data pins 405 and 407 are each used as a clock signal CLK pin and a data signal DAT pin, respectively, in the MMC mode; col. 11, lines 15-25); a memory (flash memory 470, fig. 8) in communication with the USB port and the I/O port (470 connect to both 430 and 440 through 460 and 450; fig. 8); and a housing (movable storage device housing 400, fig 8) storing the memory and exposing the USB port and the I/O port (NOTE: memory contained within and the ports are exposed as the pins), wherein the USB port and the I/O port are positioned on a same end (fig. 8, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction) and wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry (On the other hand, the data

pin 401 is not used when the movable storage device 400 is connected to an MMC host and operates in an MMC mode; col. 11, line 15-20); determining whether the data is to be transmitted via the USB port or I/O port (NOTE: level sensing control unit, sense the connection to a host and determines which interface to enable; col. 11 line 50 to col. 12, line 45) and transmitting the data to the host device via the determined port (NOTE: data is transmitted through enabled interface onto corresponding port pins).

As to claim 34, Kim teaches the memory comprises Flash memory (flash memory 470, fig. 8).

As to claim 37, Kim teaches at least two pins of the USB port are parallel to at least two pins of the I/O port (fig. 8, 401 and 402 parallel to 405 and 407).

As to claim 38, Kim teaches layout for the USB port is different from layout of the I/O port (fig. 8).

As to claim 39, Kim teaches the I/O port is for mating with an external port (storage device 400 is connect to an MMC host; col. 11, line 15).

As to claim 40, Kim teaches wherein all of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry (NOTE: all of the first set is pins 401 and 402; the data pin 401 is not

used when the movable storage device 400 is connected to an MMC host and operates in an MMC mode, col. 11, line 15-20; therefore all of the first set is not "electrically connected" to the I/O controller circuitry in MMC mode).

As to claim 41, Kim teaches wherein the USB port comprises multiple data lines (data lines connected to pins 401 and 402; fig. 8); wherein the first set of pins comprise multiple data pins connected to the multiple data lines (pins 401 and 402 connected to respective data lines, fig. 8); and wherein all of the multiple data pins are not electrically connected to the I/O controller circuitry (NOTE: all of the multiple data pins is pins 401 and 402; the data pin 401 is not used when the movable storage device 400 is connected to an MMC host and operates in an MMC mode, col. 11, line 15-20; therefore all of the all of the multiple data pins are not "electrically connected" to the I/O controller circuitry in MMC mode).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim.

As to claim 14, Kim discloses the portable memory card with two interfaces. Kim anticipates a plurality of combinations of Smart Card, MMC, CompactFlash, SD and MemoryStick protocols and specifically a USB and MMC protocol combination (col. 2,

lines 15-67). However, Kim does not appear to explicitly disclose the USB and SD combination. However, SD cards were first made available in the year 2000, and one of ordinary skill in the art would recognize SD as standard based on the older MMC format. The SD card interface is compatible with the standard MMC card operations and all SD memory and SDIO cards are required to support the older SPI/MMC mode which supports the slightly slower four-wire serial interface.

The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. It would have been obvious to one of ordinary skill in the art to update a legacy industry standard with an industry standard developed to advance the technology as well as provide backwards compatibility because the modification would provide performance advantages, such as speed, as well as the advantage of increased compatibility within the technologically advancing industry.

As to claim 33, the claim limitations are substantially identical to those of claim 14 and the rejections are applied accordingly.

Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Holtzman et al. (US PGPub # 2006/0177064), hereinafter referred to as Holtzman.

As to claim 9, Kim does not appear to explicitly disclose a decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Holtzman discloses a decryption circuitry (crypto-engine 40, Fig. 1A) in communication with the memory and configured to decrypt encrypted data stored in the memory (encrypted data in memory…the encrypted data is decrypted; [0020]).

Kim and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Holtzman before him or her, to modify the memory card of Kim to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Kim and Holtzman to obtain the invention as specified in the instant claim.

As to claim 30, Kim does not appear to explicitly disclose wherein the data is encrypted data, and wherein the method further comprises: decrypting the encrypted data to decrypted data.

However, Holtzman discloses wherein the data is encrypted data (encrypted data in memory, [0020]), and wherein the method further comprises: decrypting the encrypted data to decrypted data (the encrypted data is decrypted; [0020]).

Kim and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Holtzman before him or her, to modify the memory card of Kim to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Kim and Holtzman to obtain the invention as specified in the instant claim.

Claims 10, 22, 25-28, 31, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Petersen et al (US Patent # 7433994), hereinafter referred to as Petersen.

As to claim 10, Kim does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Petersen discloses decompression circuitry (co-processor 26, Fig. 3) configured to decompress compressed data stored in the memory (compressed cached data written to flash memory and read out as compressed; co-processor...to

perform...decompression of the data read from the flash memory array; col. 3, lines 5-20).

Kim and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Petersen before him or her, to modify the memory card of Kim to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (Petersen: col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Kim and Petersen to obtain the invention as specified in the instant claim.

Referring to claim 22, Kim discloses a method comprising: with a portable handheld memory card (Fig. 8) comprising: a Universal Serial Bus (USB) port comprising a first set of pins (USB interface pins 401 and 402, fig. 8); USB controller (USB interface controller, fig. 8) circuitry electrically connected with the first set of pins of the USB port (When the movable storage device 400 is connected to a USB host, the data pin 401 is used as an input data signal D+ pin…recognition signal for the USB host generation circuit 480 can be connected to an input line of one of the data pins 402,

405, and 407 when the movable storage device 400 operates in a USB host interface mode and one of the data pins 402, 405, and 407 is used as the input data signal D+ pin; col. 10 line 60 to col. 11 line 15, fig. 8); an input/output (I/O) port comprising a second set of pins (MMC interface pins 402, 405, and 407, fig. 8); I/O controller circuitry (MMC interface controller 440; fig. 8) electrically connected with the second set of pins of the I/O port (when the movable storage device 400 is connected to an MMC host and operates in an SPI mode. Also, the data pin 402 is used as a command CMD pin in the MMC mode, and used as an input data signal DI pin in the SPI mode. Additionally, the data pins 405 and 407 are each used as a clock signal CLK pin and a data signal DAT pin, respectively, in the MMC mode; col. 11, lines 15-25); a memory (flash memory 470, fig. 8) in communication with the USB port and the I/O port (470 connect to both 430 and 440 through 460 and 450; fig. 8); and a housing (movable storage device housing 400, fig 8) storing the memory and exposing the USB port and the I/O port (NOTE: memory contained within and the ports are exposed as the pins), wherein the USB port and the I/O port are positioned on a same end (fig. 8, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction) and wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry (On the other hand, the data pin 401 is not used when the movable storage device 400 is connected to an MMC host and operates in an MMC mode; col. 11, line 15-20): reading data from the memory

(memory controller 460 controls read and write operations, fig. 8, col. 12, lines 45-60); transmitting the data on the I/O port (NOTE: level sensing control unit, sense the connection to a host and determines which interface to enable, and data is transmitted on the appropriate port; col. 11 line 50 to col. 12, line 45); converting the data to first converted data for transmission on the USB port; and transmitting the first converted data on the USB port (NOTE: though Kim does not explicitly describe converting data for USB transmission, conversion from a memory storage format to the USB packet transmission protocol is required for USB compliance).

While Kim discloses reading data from memory and transmitting the data on the I/O port and the USB Port, Kim does not appear to explicitly disclose reading compressed data from memory, decompressing the compressed data to decompressed data, and transmitting the decompressed data.

However, Petersen discloses reading compressed data from the memory (compressed cached data written to flash memory and read out at compressed; col. 3, lines 5-20); decompressing the compressed data to decompressed data (co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20); transmitting the decompressed data (Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45). Furthermore, Petersen discloses the conventional method of compression mechanism performed by the host system (col. 1, lines 50-57). Therefore, transmitting compressed data from the memory to the host port is an obvious variant to transmission of decompressed data, each technique having tradeoff advantages/disadvantages.

Kim and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Petersen before him or her, to modify the memory card of Kim to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (Petersen: col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Kim and Petersen to obtain the invention as specified in the instant claim.

As to claim 25, while the combination of Kim and Petersen discloses the transmitting decompressed data (Petersen: decompression of the data read from the flash memory array, col. 3, lines 5-20; Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45) on the I/O port (Kim: MMC interface port pins, fig. 8), the combination does not appear to explicitly disclose converting the data to second converted data for transmission on the I/O port; and transmitting the second converted data on the I/O port.

Though Kim does not explicitly describe the MMC interface controller converting the data read from the memory to a second converted data for transmitting on the MMC

port, the MMC interface controller is in communication with a MMC Host and conversion from a memory storage format to the MMC packet transmission protocol is required for MMC compliance. Therefore it is inherent that the MMC interface controller converts the data read from the memory to a second converted data for transmitting on the MMC port.

As to claim 26, Kim discloses controlling reading and writing to the memory (memory controller 460 controls read and write operations, fig. 8, col. 12, lines 45-60).

As to claim 27, Kim discloses the portable memory card with two interfaces. Kim anticipates a plurality of combinations of Smart Card, MMC, CompactFlash, SD and MemoryStick protocols and specifically a USB and MMC protocol combination (col. 2, lines 15-67). However, neither Kim nor the combination Kim in view of Petersen appears to explicitly disclose the USB and SD combination. However, SD cards were first made available in the year 2000, and one of ordinary skill in the art would recognize SD as standard based on the older MMC format. The SD card interface is compatible with the standard MMC card operations and all SD memory and SDIO cards are required to support the older SPI/MMC mode which supports the slightly slower four-wire serial interface.

The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and

common sense. It would have been obvious to one of ordinary skill in the art to update a legacy industry standard with an industry standard developed to advance the technology as well as provide backwards compatibility because the modification would provide performance advantages, such as speed, as well as the advantage of increased compatibility within the technologically advancing industry.

As to claim 28, Kim discloses the memory comprises Flash memory (Flash memory 470, Fig. 8).

As to claim 31, while the combination of Kim and Petersen discloses the transmitting compressed data (NOTE: Petersen discloses the conventional method of compression mechanism performed by the host system (col. 1, lines 50-57). Therefore, transmitting compressed data from the memory to the host port is an obvious variant to transmission of decompressed data, each technique having tradeoff advantages/disadvantages), the combination does not appear to explicitly disclose converting the data to first converted data for transmission.

Though Kim does not explicitly describe the USB interface controller converting the data read from the memory to a first converted data for transmitting on the USB port, the USB interface controller is in communication with a USB Host and conversion from a memory storage format to the USB packet transmission protocol is required for USB compliance. Therefore it is inherent that the USB interface controller converts the data read from the memory to a first converted data for transmitting on the USB port.

As to claim 32, while the combination of Kim and Petersen discloses the transmitting decompressed data (Petersen: decompression of the data read from the flash memory array, col. 3, lines 5-20; Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45), the combination does not appear to explicitly disclose converting the data to second converted data for transmission

Though Kim does not explicitly describe the MMC interface controller converting the data read from the memory to a second converted data for transmitting on the MMC port, the MMC interface controller is in communication with a MMC Host and conversion from a memory storage format to the MMC packet transmission protocol is required for MMC compliance. Therefore it is inherent that the MMC interface controller converts the data read from the memory to a second converted data for transmitting on the MMC port.

As to claim 35, Kim does not appear to explicitly disclose wherein the data is compressed data, and wherein the method further comprises: decompressing the compressed data to decompressed data.

However, Petersen discloses wherein the data is compressed data (compressed cached data written to flash memory; col. 3, lines 5-20), and wherein the method further comprises: decompressing the compressed data to decompressed data (co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20).

Kim and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Petersen before him or her, to modify the memory card of Kim to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (Petersen: col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Kim and Petersen to obtain the invention as specified in the instant claim.

Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view Peterson, as applied to claims 10, 22, 25-28, 31, 32 and 35 above, further in view of Holtzman.

As to claim 23, while the combination of Kim in view of Petersen discloses transmitting data on the I/O port, the combination does not appear to explicitly disclose reading encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port.

However, Holtzman discloses reading encrypted data from the memory (encrypted data in memory 20 is fetched; [0020]); decrypting the encrypted data to

decrypted data (the encrypted data is decrypted; [0020]); and transmitting the decrypted data on the I/O port (decrypted data is then sent…to the host device; [0020]).

Kim in view Peterson and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim in view Peterson and Holtzman before him or her, to modify the memory card of Kim in view Peterson to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Kim in view Peterson and Holtzman to obtain the invention as specified in the instant claim.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view Peterson, as applied to claims 10, 22, 25-28, 31, 32 and 35 above, further in view of Liu et al. (US PGPub 2003/0212848), hereinafter referred to as Liu.

As to claim 24, Kim in view of Petersen does not appear to explicitly disclose converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

However, Liu discloses converting a first voltage of the USB port to a second voltage of the portable handheld memory card (a power source transfer and protection

circuit (18) to convert the voltage at…the USB interface currently used to the internal voltage of the CF card; [0023]).

Kim in view of Petersen and Liu are analogous art because they are from the same field of endeavor, multi-interface memory cards.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim in view of Petersen and Liu before him or her, to modify the memory card of Kim in view of Petersen to include the voltage transformation and protection circuit of Liu because the circuit would allow the USB voltage to be converted for use by the internal components of the memory card while also providing isolation and protection to the memory card components.

The suggestion/motivation for doing so would have been allow the USB voltage to be converted for use by the internal components of the memory card while also providing isolation and protection to the memory card components (Liu, [0023])

Therefore, it would have been obvious to combine Kim in view of Petersen and Liu to obtain the invention as specified in the instant claim.

Response to Arguments

Applicant's arguments with respect to claims 8-15, 22-35 and 37-41 have been considered but are not persuasive, and the amendments do not appear to overcome the prior art applied as indicated in the revised rejections above.

In regards to independent claims 8, 22 and 29 rejected under 35 USC 103(a), the applicant submits:

"As shown, Kim includes a USB interface controller that is connected to pins 401 and 402 and a MMC interface controller that is connected to pins 401,402,405, and 407. Of note, each of the pins that are input to the USB interface controller are input to the MMC controller, in other words, pins 401 and 402 are input to both the USB interface controller and the MMC interface controller.

In contrast, claim 8 recites "wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry." An example of this is disclosed in Figure 1 of the present application

As shown in Figure 1, the data line inputs (D+ and D-) to the USB controller are not input to the Host Interface 114. This may allow the pin layout for the USB port to be different from the pin layout for the SD port. In other words, the card as claimed may choose a pinout for the USB port that does not need to be forced into a particular layout (which may not be compatible with USB standards) in order to conform with the pinout of the second port."

The Examiner respectfully disagrees. As previous discussed and recorded in an interview summary (mailed 4/8/2011), claiming the lack of an electrical connection does not exclude the possibility of a physical connection. Though the figures of Kim depict " a MMC interface controller that is **connected** to pins 401,402,405, and 407" (emphasis added), the depiction of a physical connection is not indicative of an electrical connection such that the components are "electrically connected"; in fact Kim discloses that the data pin 401 is initially used as a host distinguishing pin when connected to a host, and is not used when the movable storage device is connected to a MMC Host and operates in an MMC mode (see col. 11, lines 15-30). Fig. 9C depicts the connection between an MMC host data pin 403 and data pin 401 of the movable storage device, the data bus 504 inside the MMC host 520 is in a floating state. As a

result, the first pull-up resistance R1 is connected in parallel to the input line IL of the data pin 501. Then, the initial input signal PLV becomes high by the first pull-up resistance R1 because the data bus 504 is in a floating state in an initial state (see col. 12, lines 35-45). Therefore the actual electrical connection providing the input signal PLV is a product of the circuit 410; the data pin 410 provides no electrical signal to "electrically" connect the pin to the MMC interface controller.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC OBERLY whose telephone number is (571)272-6991. The examiner can normally be reached on Monday - Friday 7:30 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. 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.

/E. T. O./

/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010	03/14/2011	02/11/2012				
	1	✓	-	-	-	-				
	2	✓	-	-	-	-				
	3	✓	-	-	-	-				
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	5	✓	-	-	-	-				
	6	✓	-	-	-	-				
	7	✓	-	-	-	-				
	8	✓	✓	✓	✓	✓				
	9	✓	✓	✓	✓	✓				
	10	✓	✓	✓	✓	✓				
	11	✓	✓	✓	✓	✓				
	12	✓	✓	✓	✓	✓				
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	30	✓	✓	✓	✓	✓				
	31	✓	✓	✓	✓	✓				
	32	✓	✓	✓	✓	✓				
	33	✓	✓	✓	✓	✓				
	34	✓	✓	✓	✓	✓				
	35		✓	✓	✓	✓				
	36				✓	-				

Petitioner Micron Ex-1004, 0092

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	**Art Unit**
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010	03/14/2011	02/11/2012				
	37				✓	✓				
	38				✓	✓				
	39				✓	✓				
	40					✓				
	41					✓				

Petitioner Micron Ex-1004, 0093

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

SEARCHED			
Class	Subclass	Date	Examiner

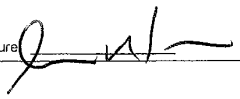
SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	6/25/2009	Eric Oberly
EAST 710/74 String Search	6/25/2009	Eric Oberly
IDS Search	6/25/2009	Eric Oberly
Google Scholar Search: Memory Card USB port	6/26/2009	Eric Oberly
Google Scholar Search: multiple interface protocol memory card	11/23/2009	Eric Oberly
Updated EAST Search	11/24/2009	Eric Oberly
EAST 710/74 String Search	9/15/2010	Eric Oberly
NPL Search: Google and ACM Digital Library	9/15/2010	Eric Oberly
EAST 710/72 string search	2/11/2012	EO
NPL Search: Google, ACM DL	2/11/2012	EO

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

Petitioner Micron Ex-1004, 0094

CERTIFICATE OF EFS FILING

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS on the below date:

Date: August 25, 2011 Name: Amir N. Penn (Reg. No. 40,767) Signature: 

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.:	2143
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH		
Attorney Docket No:	10519-226 (SDA-1240-US)		

Mail Stop RCE
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CONTINUED EXAMINATION (37 CFR § 1.114)

Sir:

Applicant(s) requests continued examination of the above-identified application under 37 CFR §1.114.

☒ Submission under 37 CFR 1.114 (*check at least one of the following*):

- ☐ Previously submitted:
  - ☐ Applicant(s) requests nonentry of any previously-filed unentered amendments.
  - ☐ Please enter and consider the Amendment After Final Under 37 CFR §1.116 previously filed on _____.
  - ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____.
  - ☐ Other: _____.
- ☒ Attached is/are:
  - ☐ An Information Disclosure Statement
  - ☒ An Amendment to the written description, claims, or drawings
  - ☐ New Arguments and/or New Evidence in support of Patentability
  - ☐ Other: _____

Petitioner Micron Ex-1004, 0095

☐ Request for suspension of action:

Applicant(s) hereby requests suspension of action on the above-identified application under 37 CFR §1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; requires Processing Fee under 37 CFR §1.17(i)).

☐ Small Entity Status:

- ☐ Applicant(s) hereby asserts entitlement to claim small entity status under 37 CFR §§ 1.9 and 1.27.
- ☐ A small entity statement or assertion of entitlement to claim small entity status was filed in prior application no. _____/_____ and such status is still proper and desired.
- ☐ Is no longer desired.

☒ Applicant(s) calculate the following fees to be due in connection with this Request:

- ☒ A request fee of $810.00 under 37 CFR §1.17(e).
- ☐ A suspension processing fee of $_____ under 37 CFR §1.17(i).
- ☐ An additional filing fee of $_____ under 37 CFR §1.16 (_____ additional independent claims and/or _____ additional total claims).
- ☒ An extension fee of $490.00 under 37 CFR §1.17(a) for a two-month extension of time.

☒ Fee payment to cover the above-enumerated fee(s):

- ☒ Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of $1,300.00.
- ☐ A payment by credit card in the amount of $_____ (Form PTO-2038 is attached).
- ☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE).

Respectfully submitted,

August 25, 2011
Date

Amir N. Penn (Reg. No. 40,767)

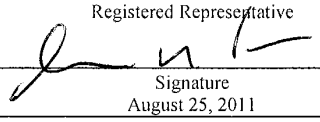
Petitioner Micron Ex-1004, 0096

I hereby certify that this correspondence is being electronically transmitted on the date noted below to:

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

August 25, 2011
Date of Deposit

Amir N. Penn (Reg. No. 40,767)
Name of applicant, assignee or
Registered Representative



Signature
August 25, 2011
Date of Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.: 2143
Appln. No.:	11/986,389	Examiner: Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit: 2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	
Attorney Docket No:	10519-226 (SDA-1240-US)	

RESPONSE TO FINAL OFFICE ACTION OF MARCH 28, 2011

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

In response to the Final Office Action mailed March 28, 2011, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks begin on page 7 of this paper.

Petitioner Micron Ex-1004, 0097

AMENDMENTS TO THE CLAIMS:

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

Listing of Claims

1. - 7. (Cancelled)

8. (Currently Amended) A portable handheld memory card comprising:

a Universal Serial Bus (USB) port comprising a first set of pins;

USB controller circuitry ~~in communication~~ electrically connected with the first set of pins of the USB port;

an input/output (I/O) port comprising a second set of pins;

I/O controller circuitry electrically connected with the second set of pins of the I/O port;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port,

wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port, and

wherein at least one of the ~~second set of pins is not included in the~~ first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry.

9. (Original) The portable handheld memory card of Claim 8 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

10. (Original) The portable handheld memory card of Claim 8 further comprising:

decompression circuitry configured to decompress compressed data stored in the memory.

Petitioner Micron Ex-1004, 0098

11. (Original) The portable handheld memory card of Claim 8 further comprising:

a power management unit in communication with the USB controller circuitry.

12. (Original) The portable handheld memory card of Claim 8 further comprising:

a host interface module in communication with the I/O port.

13. (Original) The portable handheld memory card of Claim 8 further comprising:

circuitry configured to control read and write operations to the memory.

14. (Original) The portable handheld memory card of Claim 8, wherein the I/O port comprises a Secure Digital port.

15. (Original) The portable handheld memory card of Claim 8, wherein the memory comprises Flash memory.

16. - 21. (Cancelled)

22. (Currently Amended) A method comprising:

with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry ~~in communication~~ electrically connected with the first set of pins of the USB port; an input/output (I/O) port comprising a second set of pins; I/O controller circuitry electrically connected with the second set of pins of the I/O port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the ~~second set of pins is not included in the~~ first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry:

reading compressed data from the memory

decompressing the compressed data to decompressed data;

Petitioner Micron Ex-1004, 0099

transmitting the decompressed data on the I/O port;

converting the compressed data to first converted data for transmission on the USB port; and

transmitting the first converted data on the USB port.

23. (Original) The method of Claim 22 further comprising:

reading encrypted data from the memory;

decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

24. (Original) The method of Claim 22 further comprising:

converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

25. (Original) The method of Claim 22 further comprising:

converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

26. (Original) The method of Claim 22 further comprising: controlling reading and writing to the memory.

27. (Original) The method of Claim 22, wherein the I/O port comprises a Secure Digital port.

28. (Original) The method of Claim 22, wherein the memory comprises Flash memory.

29. (Currently Amended) A method comprising:

with a portable handheld card comprising a Universal Serial Bus (USB) port comprising

Petitioner Micron Ex-1004, 0100

a first set of pins; USB controller circuitry ~~in communication~~ electrically connected with the first set of pins of the USB port; an input/output (I/O) port comprising a second set of pins; I/O controller circuitry electrically connected with the second set of pins of the I/O port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the ~~second set of pins is not included in the~~ first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry:

reading data from the memory;

determining whether the data is to be transmitted via the USB port or I/O port; and

transmitting the data to the host device via the determined port.

30. (Previously Presented) The method of Claim 29, wherein the data is encrypted data, and wherein the method further comprises:

decrypting the encrypted data to decrypted data.

31. (Previously Presented) The method of Claim 35 further comprising:

converting the compressed data to first converted data for transmission.

32. (Previously Presented) The method of Claim 35 further comprising:

converting the decompressed data to second converted data for transmission.

33. (Original) The method of Claim 29, wherein the I/O port comprises a Secure Digital port.

34. (Original) The method of Claim 29, wherein the memory comprises Flash memory.

35. (Previously Presented) The method of Claim 29, wherein the data is compressed

Petitioner Micron Ex-1004, 0101

data, and wherein the method further comprises:

decompressing the compressed data to decompressed data.

36. (Cancelled)

37. (Previously Presented) The portable handheld memory card of Claim 8, wherein at least two pins of the USB port are parallel to at least two pins of the I/O port.

38. (Previously Presented) The portable handheld memory card of Claim 8, wherein layout for the USB port is different from layout of the I/O port.

39. (Currently Amended) The portable handheld memory card of Claim 38, wherein the I/O port is configured for mating with an external port~~; and~~

~~wherein the USB port is configured such that when the I/O port mates with the external port, the USB port is not electrically connected to the external port~~.

40. (New) The portable handheld memory card of Claim 8, wherein all of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry.

41. (New) The portable handheld memory card of Claim 8, wherein the USB port comprises multiple data lines;

wherein the first set of pins comprise multiple data pins connected to the multiple data lines; and

wherein all of the multiple data pins are not electrically connected to the I/O controller circuitry.

Petitioner Micron Ex-1004, 0102

REMARKS

I. Office Action Summary

Claims 8-15 and 22-35, and 37-41 are pending. Claims 8, 22 and 29 are independent claims.

II. Interview Summary

Applicants thank the Examiner for the courtesy of an interview. The comments below are in furtherance of the interview.

III. Rejections under 35 U.S.C. § 112

Claim 36 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Not to be interpreted as acquiescing to the rejection, Applicants cancel claim 36.

IV. Rejections under 35 U.S.C. §§ 102, 103

Claims 8, 11-13, 15, 29, 34 and 36-39 were rejected under 35 U.S.C. § 102(b) as being anticipated by Kim et al. (U.S. Patent No. 7,376,773). Claims 14 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim. Claims 9 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Holtzman et al. (U.S. Publication No. 2006/0177064). Claims 10, 22, 25-28, 31, 32, and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Peterson et al. (U.S. Patent No. 7,433,994). Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Kim in view of Peterson, and further in view of Holtzman. Claim 24 was rejected under 35 U.S.C. § 103(a) as being obvious over Kim in view of Peterson, and further in view of Liu et al. (U.S. Publication No. 2003/0212848).

Claim 8:

Claim 8 recites in part:

> a Universal Serial Bus (USB) port comprising a first set of pins;
>
> USB controller circuitry electrically connected with the first set of pins of the USB port;
>
> an input/output (I/O) port comprising a second set of pins;

Petitioner Micron Ex-1004, 0103

I/O controller circuitry electrically connected with the second set of pins of the I/O port;

a memory in communication with the USB port and the I/O port; and

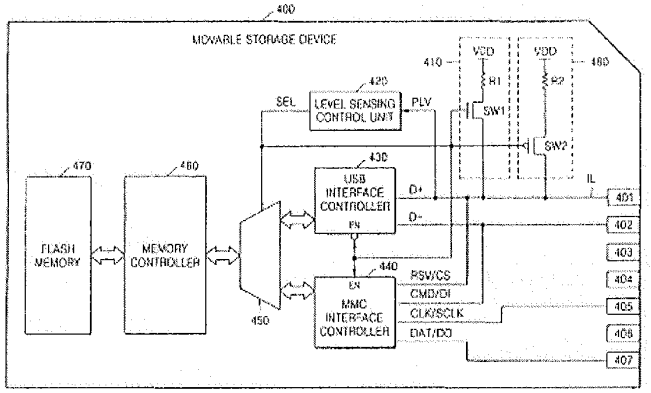
a housing storing the memory and exposing the USB port and the I/O port,

wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port, and

wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry.

The Office Action rejects claim 8 as anticipated by Kim. Figure 8 of Kim is reproduced below:

FIG. 8



As shown, Kim includes a USB interface controller that is connected to pins 401 and 402 and a MMC interface controller that is connected to pins 401, 402, 405, and 407. Of note, each of the pins that are input to the USB interface controller are input to the MMC controller. In other words, pins 401 and 402 are input to both the USB interface controller and the MMC interface controller.

In contrast, claim 8 recites "wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry." An example of this is disclosed in Figure 1 of the present application (reproduced below):

Petitioner Micron Ex-1004, 0104

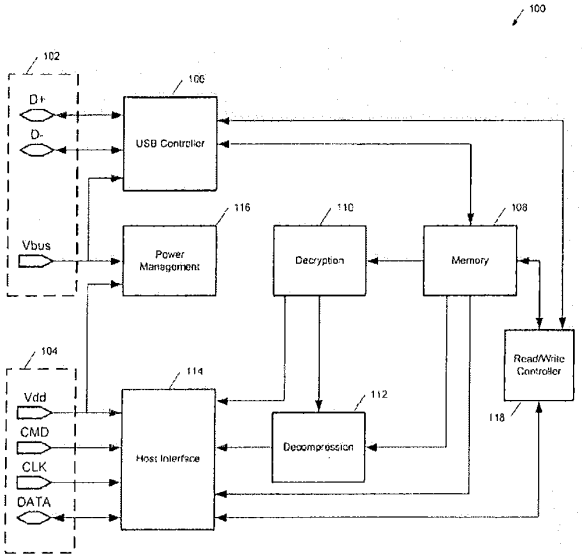


Figure 1

As shown in Figure 1, the data line inputs (D+ and D-) to the USB controller are not input to the Host Interface 114. This may allow the pin layout for the USB port to be different from the pin layout for the SD port. In other words, the card as claimed may choose a pinout for the USB port that does not need to be forced into a particular layout (which may not be compatible with USB standards) in order to conform with the pinout of the second port. Thus, for at least the reasons cited, claim 8 is patentable over the cited art. Further, claims 9-15 and 37-41 are patentable at least by virtue of their dependence on allowable claim 8.

Claim 22:

Claim 22 recites in part:

> with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry electrically connected with the first set of pins of the USB port; an input/output (I/O) port comprising a second set of pins; I/O controller circuitry electrically connected with the second set of pins of the I/O port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of

Petitioner Micron Ex-1004, 0105

whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry.

As discussed above, Kim fails to teach or suggest these limitations. Thus, for at least the reasons cited, claim 22 is patentable over the cited art. Further, claims 23-28 are patentable at least by virtue of their dependence on allowable claim 22.

Claim 29:

Claim 29 recites in part:

with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry electrically connected with the first set of pins of the USB port; an input/output (I/O) port comprising a second set of pins; I/O controller circuitry electrically connected with the second set of pins of the I/O port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the first set of pins electrically connected with the USB controller circuitry is not electrically connected to the I/O controller circuitry.

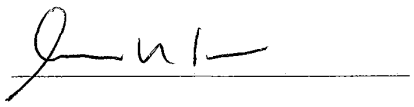
As discussed above, Kim fails to teach or suggest these limitations. Thus, for at least the reasons cited, claim 29 is patentable over the cited art. Further, claims 30-35 are patentable at least by virtue of their dependence on allowable claim 29.

Petitioner Micron Ex-1004, 0106

SUMMARY

Applicant respectfully requests the Examiner to grant allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



Attorney for Applicant

BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0107

Electronic Patent Application Fee Transmittal

Application Number:	11986389
Filing Date:	20-Nov-2007
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Filer:	Amir N. Penn/Consuelo Henry
Attorney Docket Number:	10519-226

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

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:				
Extension - 2 months with $0 paid	1252	1	490	490

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	1801	1	810	810
		Total in USD ($)		**1300**

Electronic Acknowledgement Receipt	
EFS ID:	10811953
Application Number:	11986389
International Application Number:	
Confirmation Number:	2143
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Customer Number:	67813
Filer:	Amir N. Penn/Maggie Pieczonka
Filer Authorized By:	Amir N. Penn
Attorney Docket Number:	10519-226
Receipt Date:	25-AUG-2011
Filing Date:	20-NOV-2007
Time Stamp:	14:01:27
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1300
RAM confirmation Number	260
Deposit Account	231925
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees) Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees) Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		10519-226Response-Extension-RCE-082511.pdf	729341 1286257236a16bc704d6793cc5b3120d762fd27e	yes	16

Multipart Description/PDF files in .zip description

Document Description	Start	End
Miscellaneous Incoming Letter	1	1
Extension of Time	2	3
Request for Continued Examination (RCE)	4	5
Amendment Submitted/Entered with Filing of CPA/RCE	6	6
Claims	7	11
Applicant Arguments/Remarks Made in an Amendment	12	16

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	31909 5bd74c91ea0b3772e1ace5c94fd24d96e1236194	no	2

Warnings:

Information:

Total Files Size (in bytes):	761250

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.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: August 25, 2011 Name: Amir N. Penn (Reg. No. 40,767 Signature:

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.:	2143
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH		
Attorney Docket No:	10519-226 (SDA-1240-US)		

TRANSMITTAL

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Transmittal (1 pg); Response to Final Office Action mailed March 28, 2011 (11 pgs); Petition and Fee for Extension of Time (2 pgs); Request for Continued Examination (RCE) (2 pgs).

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☒ An extension fee in an amount of $490.00 for a two-month extension of time under 37 CFR § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 CFR § 1.17(t).

☐ An additional filing fee has been calculated as shown below:

						Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra		Rate	Add'l Fee	OR	Rate	Add'l Fee
Total	27	Minus	35	0		x $26=			x $52=	$
Indep.	3	Minus	3	0		x 110=			x $220=	
First Presentation of Multiple Dep. Claim						+$195=			+ $390=	
						Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $1,300.00 for two-month extension of time and Request for Continued Examination (RCE).

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

August 25, 2011
Date

Amir N. Penn (Reg. No. 40,767)

Petitioner Micron Ex-1004, 0113

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: August 25, 2011 Name: Amir N. Penn (Reg. No.: 40,767) Signature:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.: 2143
Appln. No.:	11/986,389	Examiner: Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit: 2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	
Attorney Docket No:	10519-226 (SDA-1240-US)	

PETITION AND FEE FOR EXTENSION OF TIME (37 CFR § 1.136(a))

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a petition for an extension of the time to respond to Office Action dated March 28, 2011 for a period of 2 months.

Applicant is: ☐ small entity (per 37 CFR 1.27) ☒ other than small entity

	Extension Months	Other Than Small Entity	Small Entity
☐	One Month	$130.00	$65.00
☒	Two Months	$490.00	$245.00
☐	Three Months	$1,110.00	$555.00
☐	Four Months	$1,730.00	$865.00
☐	Five Months	$2,350.00	$1,175.00

Payment Method:

☐ Payment by credit card in the amount of $_____ to cover the fees listed above. Form PTO-2038 is enclosed for this purpose.

☒ The Commissioner is hereby authorized to charge $490.00 to cover the fees listed above to Deposit Account No. 23-1925.

☒ The Commissioner is hereby authorized to charge any deficiencies in fees or credit overpayment to Deposit Account No. 23-1925.

Respectfully submitted,

Dated: August 25, 2011

Amir N. Penn (Reg. No.: 40,767)
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
PO BOX 10395
CHICAGO, IL 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0115

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/986,389	11/20/2007	

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			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 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			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	08/25/2011	(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 ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 27	Minus	** 34	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***5	= 0	X $ =		OR	X $220=	0
	☐ 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	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	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 number found in the appropriate box in column 1.

Legal Instrument Examiner:
/MYRTLE LEIGH/

This collection of information is required by 37 CFR 1.16. 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 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.**

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

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 04/08/2011

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
04/08/2011	PAPER

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.

Petitioner Micron Ex-1004, 0117

Interview Summary	**Application No.** 11/986,389	**Applicant(s)** KANG, MYEONG JOON
	Examiner ERIC T. OBERLY	**Art Unit** 2184

All participants (applicant, applicant's representative, PTO personnel):

(1) *ERIC T. OBERLY*.	(3)_____.
(2) *Amir N. Penn (Applicant's Representative)*.	(4)_____.

Date of Interview: *29 March 2011*.

Type: a)☒ Telephonic b)☐ Video Conference
c)☐ Personal [copy given to: 1)☐ applicant 2)☐ applicant's representative]

Exhibit shown or demonstration conducted: d)☐ Yes e)☒ No.
If Yes, brief description: _____.

Claim(s) discussed: *39*.

Identification of prior art discussed: *N/A*.

Agreement with respect to the claims f)☐ was reached. g)☐ was not reached. h)☒ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: *The Examiner and the Applicant's Representative discussed the layout of the USB port pins, the interpretation of "electrically connected" from claim 39, and the lack of a connection of particular USB port pins when the memory card is inserted in a external port other than a USB external port. The Applicant's Representative indicated the intent to amend independent claims to include subject matter of the dependent claims, and the Examiner suggested the amendments revise "not electrically connected" with claim language to clearly indicate there is no physical connection between particular pins of the USB port and the external port* .

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

/E. T. O./ Examiner, Art Unit 2184	/Henry W.H. Tsai/ Supervisory Patent Examiner, Art Unit 2184	

Petitioner Micron Ex-1004, 0118

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

———

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
   (The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 03/28/2011

BRINKS HOFER GILSON & LIONE/SanDisk
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CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
03/28/2011	PAPER

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.

Petitioner Micron Ex-1004, 0120

Office Action Summary	Application No.	Applicant(s)
	11/986,389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T. OBERLY	2184

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 *23 February 2011*.

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

3)☐ 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

4)☒ Claim(s) *8-15 and 22-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *8-15 and 22-39* is/are rejected.

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

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

Application Papers

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

10)☐ The drawing(s) filed on _____ 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).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).

a)☐ All b)☐ Some * c)☐ None of:

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)	4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	6) ☐ Other: _____.

Petitioner Micron Ex-1004, 0121

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 36 is indefinite because the scope of the claim cannot be determined from imaginary lines drawn from vague reference points; claim language with respect to the pin configuration should be clear and concise to reflect the layout in accordance with the subject matter depicted by the drawings, specifically figure 2.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 11-13, 15, 29, 34 and 36-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim et al. (US Patent # 7376773), hereinafter referred to as Kim.

Referring to claim 8, Kim teaches a portable handheld memory card (Fig. 8) comprising: a Universal Serial Bus (USB) port comprising a first set of pins (USB

interface pins 401 and 401, fig. 8); USB controller circuitry (USB interface controller, fig. 8) in communication with the USB port (fig. 8); an input/output (I/O) port comprising a second set of pins (MMC interface pins 401, 402, 405, and 407, fig. 8); a memory (flash memory 470, fig. 8) in communication with the USB port and the I/O port (470 connect to both 430 and 440 through 460 and 450; fig. 8); and a housing (movable storage device housing 400, fig 8) storing the memory and exposing the USB port and the I/O port (NOTE: memory contained within and the ports are exposed as the pins), wherein the USB port and the I/O port are positioned on a same end (fig. 8, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction), and wherein at least one of the second set of pins is not included in the first set of pins (fig. 8, pins 405 and 407 are included in MMC pin set and not included in USB pin set).

As to claim 11, Kim teaches a power management unit (level sensing control unit 420, fig. 8) in communication with the USB controller circuitry (level sensing control unit SEL line manages which VDD, 410 or 480, pulls the D+ bus high, and which interface controller, USB or MMC, to enable).

As to claim 12, Kim teaches a host interface module (MMC interface controller 440 fig. 8) in communication with the I/O port.

As to claim 13, Kim teaches circuitry configured to control read and write operations to the memory (memory controller 460, fig. 8).

As to claim 15, Kim teaches the memory comprises Flash memory (flash memory 470, fig. 8).

Referring to claim 29, Kim discloses a method comprising: with a portable handheld memory card (Fig. 8) comprising: a Universal Serial Bus (USB) port comprising a first set of pins (USB interface pins 401 and 401, fig. 8); USB controller (USB interface controller, fig. 8) circuitry in communication with the USB port (fig. 8); an input/output (I/O) port comprising a second set of pins (MMC interface pins 401, 402, 405, and 407, fig. 8); a memory (flash memory 470, fig. 8) in communication with the USB port and the I/O port (470 connect to both 430 and 440 through 460 and 450; fig. 8); and a housing (movable storage device housing 400, fig 8) storing the memory and exposing the USB port and the I/O port (NOTE: memory contained within and the ports are exposed as the pins), wherein the USB port and the I/O port are positioned on a same end (fig. 8, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction) and wherein at least one of the second set of pins is not included in the first set of pins (fig. 8, pins 405 and 407 are included in MMC pin

set and not included in USB pin set): reading data from the memory (memory controller 460 controls read and write operations, fig. 8, col. 12, lines 45-60); determining whether the data is to be transmitted via the USB port or I/O port (NOTE: level sensing control unit, sense the connection to a host and determines which interface to enable; col. 11 line 50 to col. 12, line 45) and transmitting the data to the host device via the determined port (NOTE: data is transmitted through enabled interface onto corresponding port pins).

As to claim 34, Kim teaches the memory comprises Flash memory (flash memory 470, fig. 8).

As to claim 36, Kim teaches wherein a line drawn from the at least a part of a pin of the USB port to the at least a part of a pin of the I/O port is perpendicular to an insertion edge of the house (fig. 8, reference point: 400 points to top housing edge; a line drawn through pins 401-407 is perpendicular to bottom insertion edge of housing).

As to claim 37, Kim teaches at least to pins of the USB port are parallel to at least two pins of the I/O port (fig. 8, 401 and 402 parallel to 405 and 407).

As to claim 38, Kim teaches layout for the USB port is different from layout of the I/O port (fig. 8).

As to claim 39, Kim teaches the I/O port is for mating with an external port (storage device 400 is connect to an MMC host; col. 11, line 15); and wherein the USB port is configured such that when the I/O port mates with the external port, the USB port is not electrically connected to the external port (NOTE: when connected to MMC host, and MMC interface controller is enabled and the USB interface is not enabled, the memory controller exchanges data with the host through the selected interface controller, therefore the USB port is not electrically connected to the external port of the MMC host; col. 12, lines 30-65).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim.

As to claim 14, Kim discloses the portable memory card with two interfaces. Kim anticipates a plurality of combinations of Smart Card, MMC, CompactFlash, SD and MemoryStick protocols and specifically a USB and MMC protocol combination (col. 2, lines 15-67). However, Kim does not appear to explicitly disclose the USB and SD combination. However, SD cards were first made available in the year 2000, and one of ordinary skill in the art would recognize SD as standard based on the older MMC format. The SD card interface is compatible with the standard MMC card operations

and all SD memory and SDIO cards are required to support the older SPI/MMC mode which supports the slightly slower four-wire serial interface.

The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. It would have been obvious to one of ordinary skill in the art to update a legacy industry standard with an industry standard developed to advance the technology as well as provide backwards compatibility because the modification would provide performance advantages, such as speed, as well as the advantage of increased compatibility within the technologically advancing industry.

As to claim 33, the claim limitations are substantially identical to those of claim 14 and the rejections are applied accordingly.

Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Holtzman et al. (US PGPub # 2006/0177064), hereinafter referred to as Holtzman.

As to claim 9, Kim does not appear to explicitly disclose a decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Holtzman discloses a decryption circuitry (crypto-engine 40, Fig. 1A) in communication with the memory and configured to decrypt encrypted data stored in the memory (encrypted data in memory…the encrypted data is decrypted; [0020]).

Kim and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Holtzman before him or her, to modify the memory card of Kim to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Kim and Holtzman to obtain the invention as specified in the instant claim.

As to claim 30, Kim does not appear to explicitly disclose wherein the data is encrypted data, and wherein the method further comprises: decrypting the encrypted data to decrypted data.

However, Holtzman discloses wherein the data is encrypted data (encrypted data in memory, [0020]), and wherein the method further comprises: decrypting the encrypted data to decrypted data (the encrypted data is decrypted; [0020]).

Kim and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Holtzman before him or her, to modify the memory card of Kim to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Kim and Holtzman to obtain the invention as specified in the instant claim.

Claims 10, 22, 25-28, 31, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Petersen et al (US Patent # 7433994), hereinafter referred to as Petersen.

As to claim 10, Kim does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Petersen discloses decompression circuitry (co-processor 26, Fig. 3) configured to decompress compressed data stored in the memory (compressed cached data written to flash memory and read out as compressed; co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20).

Kim and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Petersen before him or her, to modify the memory card of Kim to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (Petersen: col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Kim and Petersen to obtain the invention as specified in the instant claim.

Referring to claim 22, Kim discloses a method comprising: with a portable handheld memory card (Fig. 8) comprising: a Universal Serial Bus (USB) port comprising a first set of pins (USB interface pins 401 and 401, fig. 8); USB controller (USB interface controller, fig. 8) circuitry in communication with the USB port (fig. 8); an input/output (I/O) port comprising a second set of pins (MMC interface pins 401, 402, 405, and 407, fig. 8); a memory (flash memory 470, fig. 8) in communication with the USB port and the I/O port (470 connect to both 430 and 440 through 460 and 450; fig. 8); and a housing (movable storage device housing 400, fig 8) storing the memory and exposing the USB port and the I/O port (NOTE: memory contained within and the ports are exposed as the pins), wherein the USB port and the I/O port are positioned on a same end (fig. 8, all pins for respective ports located on same end) to allow a same

card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction) and wherein at least one of the second set of pins is not included in the first set of pins (fig. 8, pins 405 and 407 are included in MMC pin set and not included in USB pin set): reading data from the memory (memory controller 460 controls read and write operations, fig. 8, col. 12, lines 45-60); transmitting the data on the I/O port (NOTE: level sensing control unit, sense the connection to a host and determines which interface to enable, and data is transmitted on the appropriate port; col. 11 line 50 to col. 12, line 45); converting the data to first converted data for transmission on the USB port; and transmitting the first converted data on the USB port (NOTE: though Kim does not explicitly describe converting data for USB transmission, conversion from a memory storage format to the USB packet transmission protocol is required for USB compliance).

While Kim discloses reading data from memory and transmitting the data on the I/O port and the USB Port, Kim does not appear to explicitly disclose reading compressed data from memory, decompressing the compressed data to decompressed data, and transmitting the decompressed data.

However, Petersen discloses reading compressed data from the memory (compressed cached data written to flash memory and read out at compressed; col. 3, lines 5-20); decompressing the compressed data to decompressed data (co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20); transmitting the decompressed data (Fig. 4, data is transferred

through host interface 14; col. 2, lines 38-45). Furthermore, Petersen discloses the conventional method of compression mechanism performed by the host system (col. 1, lines 50-57). Therefore, transmitting compressed data from the memory to the host port is an obvious variant to transmission of decompressed data, each technique having tradeoff advantages/disadvantages.

Kim and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Petersen before him or her, to modify the memory card of Kim to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (Petersen: col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Kim and Petersen to obtain the invention as specified in the instant claim.

As to claim 25, while the combination of Kim and Petersen discloses the transmitting decompressed data (Petersen: decompression of the data read from the flash memory array, col. 3, lines 5-20; Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45) on the I/O port (Kim: MMC interface port pins, fig. 8), the

combination does not appear to explicitly disclose converting the data to second converted data for transmission on the I/O port; and transmitting the second converted data on the I/O port.

Though Kim does not explicitly describe the MMC interface controller converting the data read from the memory to a second converted data for transmitting on the MMC port, the MMC interface controller is in communication with a MMC Host and conversion from a memory storage format to the MMC packet transmission protocol is required for MMC compliance. Therefore it is inherent that the MMC interface controller converts the data read from the memory to a second converted data for transmitting on the MMC port.

As to claim 26, Kim discloses controlling reading and writing to the memory (memory controller 460 controls read and write operations, fig. 8, col. 12, lines 45-60).

As to claim 27, Kim discloses the portable memory card with two interfaces. Kim anticipates a plurality of combinations of Smart Card, MMC, CompactFlash, SD and MemoryStick protocols and specifically a USB and MMC protocol combination (col. 2, lines 15-67). However, neither Kim nor the combination Kim in view of Petersen appears to explicitly disclose the USB and SD combination. However, SD cards were first made available in the year 2000, and one of ordinary skill in the art would recognize SD as standard based on the older MMC format. The SD card interface is compatible with the standard MMC card operations and all SD memory and SDIO cards are

required to support the older SPI/MMC mode which supports the slightly slower four-wire serial interface.

The claim would have been obvious because a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. It would have been obvious to one of ordinary skill in the art to update a legacy industry standard with an industry standard developed to advance the technology as well as provide backwards compatibility because the modification would provide performance advantages, such as speed, as well as the advantage of increased compatibility within the technologically advancing industry.

As to claim 28, Kim discloses the memory comprises Flash memory (Flash memory 470, Fig. 8).

As to claim 31, while the combination of Kim and Petersen discloses the transmitting compressed data (NOTE: Petersen discloses the conventional method of compression mechanism performed by the host system (col. 1, lines 50-57). Therefore, transmitting compressed data from the memory to the host port is an obvious variant to transmission of decompressed data, each technique having tradeoff advantages/disadvantages), the combination does not appear to explicitly disclose converting the data to first converted data for transmission.

Though Kim does not explicitly describe the USB interface controller converting the data read from the memory to a first converted data for transmitting on the USB port, the USB interface controller is in communication with a USB Host and conversion from a memory storage format to the USB packet transmission protocol is required for USB compliance. Therefore it is inherent that the USB interface controller converts the data read from the memory to a first converted data for transmitting on the USB port.

As to claim 32, while the combination of Kim and Petersen discloses the transmitting decompressed data (Petersen: decompression of the data read from the flash memory array, col. 3, lines 5-20; Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45), the combination does not appear to explicitly disclose converting the data to second converted data for transmission

Though Kim does not explicitly describe the MMC interface controller converting the data read from the memory to a second converted data for transmitting on the MMC port, the MMC interface controller is in communication with a MMC Host and conversion from a memory storage format to the MMC packet transmission protocol is required for MMC compliance. Therefore it is inherent that the MMC interface controller converts the data read from the memory to a second converted data for transmitting on the MMC port.

As to claim 35, Kim does not appear to explicitly disclose wherein the data is compressed data, and wherein the method further comprises: decompressing the compressed data to decompressed data.

However, Petersen discloses wherein the data is compressed data (compressed cached data written to flash memory; col. 3, lines 5-20), and wherein the method further comprises: decompressing the compressed data to decompressed data (co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20).

Kim and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim and Petersen before him or her, to modify the memory card of Kim to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (Petersen: col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Kim and Petersen to obtain the invention as specified in the instant claim.

Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view Peterson, as applied to claims 10, 22, 25-28, 31, 32 and 35 above, further in view of Holtzman.

As to claim 23, while the combination of Kim in view of Petersen discloses transmitting data on the I/O port, the combination does not appear to explicitly disclose reading encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port.

However, Holtzman discloses reading encrypted data from the memory (encrypted data in memory 20 is fetched; [0020]); decrypting the encrypted data to decrypted data (the encrypted data is decrypted; [0020]); and transmitting the decrypted data on the I/O port (decrypted data is then sent…to the host device; [0020]).

Kim in view Peterson and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim in view Peterson and Holtzman before him or her, to modify the memory card of Kim in view Peterson to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Kim in view Peterson and Holtzman to obtain the invention as specified in the instant claim.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view Peterson, as applied to claims 10, 22, 25-28, 31, 32 and 35 above, further in view of Liu et al. (US PGPub 2003/0212848), hereinafter referred to as Liu.

As to claim 24, Kim in view of Petersen does not appear to explicitly disclose converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

However, Liu discloses converting a first voltage of the USB port to a second voltage of the portable handheld memory card (a power source transfer and protection circuit (18) to convert the voltage at…the USB interface currently used to the internal voltage of the CF card; [0023]).

Kim in view of Petersen and Liu are analogous art because they are from the same field of endeavor, multi-interface memory cards.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Kim in view of Petersen and Liu before him or her, to modify the memory card of Kim in view of Petersen to include the voltage transformation and protection circuit of Liu because the circuit would allow the USB voltage to be converted for use by the internal components of the memory card while also providing isolation and protection to the memory card components.

The suggestion/motivation for doing so would have been allow the USB voltage to be converted for use by the internal components of the memory card while also providing isolation and protection to the memory card components (Liu, [0023])

Therefore, it would have been obvious to combine Kim in view of Petersen and Liu to obtain the invention as specified in the instant claim.

Response to Arguments

Applicant's arguments with respect to claims 8-15, 22-39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. OBERLY whose telephone number is (571)272-6991. The examiner can normally be reached on Monday - Friday 7:30 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. 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.

/E. T. O./

/Henry W.H. Tsai/

Supervisory Patent Examiner, Art Unit 2184

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010	03/14/2011					
	1	✓	-	-	-					
	2	✓	-	-	-					
	3	✓	-	-	-					
	4	✓	-	-	-					
	5	✓	-	-	-					
	6	✓	-	-	-					
	7	✓	-	-	-					
	8	✓	✓	✓	✓					
	9	✓	✓	✓	✓					
	10	✓	✓	✓	✓					
	11	✓	✓	✓	✓					
	12	✓	✓	✓	✓					
	13	✓	✓	✓	✓					
	14	✓	✓	✓	✓					
	15	✓	✓	✓	✓					
	16	✓	-	-	-					
	17	✓	-	-	-					
	18	✓	-	-	-					
	19	✓	-	-	-					
	20	✓	-	-	-					
	21	✓	-	-	-					
	22	✓	✓	✓	✓					
	23	✓	✓	✓	✓					
	24	✓	✓	✓	✓					
	25	✓	✓	✓	✓					
	26	✓	✓	✓	✓					
	27	✓	✓	✓	✓					
	28	✓	✓	✓	✓					
	29	✓	✓	✓	✓					
	30	✓	✓	✓	✓					
	31	✓	✓	✓	✓					
	32	✓	✓	✓	✓					
	33	✓	✓	✓	✓					
	34	✓	✓	✓	✓					
	35		✓	✓	✓					
	36				✓					

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Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	**Art Unit**
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010	03/14/2011					
	37				✓					
	38				✓					
	39				✓					

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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	6/25/2009	Eric Oberly
EAST 710/74 String Search	6/25/2009	Eric Oberly
IDS Search	6/25/2009	Eric Oberly
Google Scholar Search: Memory Card USB port	6/26/2009	Eric Oberly
Google Scholar Search: multiple interface protocol memory card	11/23/2009	Eric Oberly
Updated EAST Search	11/24/2009	Eric Oberly
EAST 710/74 String Search	9/15/2010	Eric Oberly
NPL Search: Google and ACM Digital Library	9/15/2010	Eric Oberly

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

Petitioner Micron Ex-1004, 0143

I hereby certify that this correspondence is being electronically transmitted on the date noted below to:

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450
February 23, 2011
Date of Deposit

Amir N. Penn (Reg. No. 40,767)
Name of applicant, assignee or
Registered Representative

Signature
February 23, 2011
Date of Signature

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.: 2143
Appln. No.:	11/986,389	Examiner: Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit: 2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	
Attorney Docket No:	10519-226 (SDA-1240-US)	

RESPONSE TO OFFICE ACTION OF SEPTEMBER 24, 2010

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

In response to the Office Action mailed September 24, 2010, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims that begins on page 2 of this paper.

Remarks begin on page 7 of this paper.

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AMENDMENTS TO THE CLAIMS:

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

Listing of Claims

1. - 7. (Cancelled)

8. (Currently Amended) A portable handheld memory card comprising:

a Universal Serial Bus (USB) port comprising a first set of pins;

USB controller circuitry in communication with the USB port;

an input/output (I/O) port comprising a second set of pins;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port,

wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port, and

wherein at least one of the second set of pins is not included in the first set of pins.

9. (Original) The portable handheld memory card of Claim 8 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

10. (Original) The portable handheld memory card of Claim 8 further comprising:

decompression circuitry configured to decompress compressed data stored in the memory.

11. (Original) The portable handheld memory card of Claim 8 further comprising:

a power management unit in communication with the USB controller circuitry.

12. (Original) The portable handheld memory card of Claim 8 further comprising:

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a host interface module in communication with the I/O port.

13. (Original) The portable handheld memory card of Claim 8 further comprising:

circuitry configured to control read and write operations to the memory.

14. (Original) The portable handheld memory card of Claim 8, wherein the I/O port comprises a Secure Digital port.

15. (Original) The portable handheld memory card of Claim 8, wherein the memory comprises Flash memory.

16. - 21. (Cancelled)

22. (Currently Amended) A method comprising:

with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry in communication with the USB port; an input/output (I/O) port comprising a second set of pins; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the second set of pins is not included in the first set of pins:

reading compressed data from the memory

decompressing the compressed data to decompressed data;

transmitting the decompressed data on the I/O port;

converting the compressed data to first converted data for transmission on [[a]] the USB port; and

transmitting the first converted data on the USB port.

23. (Original) The method of Claim 22 further comprising:

reading encrypted data from the memory;

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decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

24. (Original) The method of Claim 22 further comprising:

converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

25. (Original) The method of Claim 22 further comprising:

converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

26. (Original) The method of Claim 22 further comprising: controlling reading and writing to the memory.

27. (Original) The method of Claim 22, wherein the I/O port comprises a Secure Digital port.

28. (Original) The method of Claim 22, wherein the memory comprises Flash memory.

29. (Currently Amended) A method comprising:

with a portable handheld memory card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry in communication with the USB port; an input/output (I/O) port comprising a second set of pins; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the second set of pins is not included in the first set of pins:

reading data from the memory;

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determining whether the data is to be transmitted via the USB port or I/O port; and

transmitting the data to the host device via the determined port.

30. (Previously Presented) The method of Claim 29, wherein the data is encrypted data, and wherein the method further comprises:

decrypting the encrypted data to decrypted data.

31. (Previously Presented) The method of Claim 35 further comprising:

converting the compressed data to first converted data for transmission.

32. (Previously Presented) The method of Claim 35 further comprising:

converting the decompressed data to second converted data for transmission.

33. (Original) The method of Claim 29, wherein the I/O port comprises a Secure Digital port.

34. (Original) The method of Claim 29, wherein the memory comprises Flash memory.

35. (Previously Presented) The method of Claim 29, wherein the data is compressed data, and wherein the method further comprises:

decompressing the compressed data to decompressed data.

36. (New) The portable handheld memory card of Claim 8, wherein a line drawn from the at least a part of a pin of the USB port to the at least a part of a pin of the I/O port is perpendicular to an insertion edge of the housing.

37. (New) The portable handheld memory card of Claim 8, wherein at least two pins of the USB port are parallel to at least two pins of the I/O port.

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38. (New) The portable handheld memory card of Claim 8, wherein layout for the USB port is different from layout of the I/O port.

39. (New) The portable handheld memory card of Claim 38, wherein the I/O port is configured for mating with an external port; and

wherein the USB port is configured such that when the I/O port mates with the external port, the USB port is not electrically connected to the external port.

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REMARKS

I. Office Action Summary

Claims 8-15 and 22-39 are pending. Claims 8, 22 and 29 are independent claims.

II. Claim objections

Claims 22-28 were objected to for the following informality: claim 22, line 11, after "on" delete "a". Applicants amend claim 22 to overcome the objection.

III. Rejections under 35 U.S.C. §§ 102, 103

Claims 8, 11-15, 29, 33, and 34 were rejected under 35 U.S.C. § 102(b) as being anticipated by Son et al. (U.S. Patent No. 7,287,703). Claims 9 and 30 were rejected under 35 U.S.C. § 103(a) as being obvious over Son in view of Holtzman et al. (U.S. Publication No. 2006/0177064). Claims 10, 22, 25-28, 31, 32, and 35 were rejected under 35 U.S.C. § 103(a) as being obvious over Son in view of Petersen et al. (U.S. Patent No. 7,433,994). Claim 23 was rejected under 35 U.S.C. § 103(a) as being obvious over Son in view of Petersen, and further in view of Holtzman. Claim 24 was rejected under 35 U.S.C. § 103(a) as being obvious over Son in view of Petersen, and further in view of Liu et al. (U.S. Publication No. 2003/0212848).

Claim 8:

Claim 8 recites in part:

> a Universal Serial Bus (USB) port comprising a first set of pins;
>
> an input/output (I/O) port comprising a second set of pins;
>
> wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port, and
>
> wherein at least one of the second set of pins is not included in the first set of pins.

Figure 2 of the present application discloses one example of the pin layouts (reproduced below):

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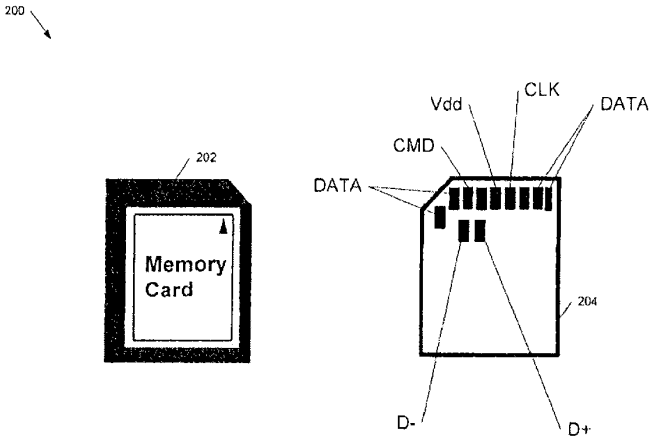


Figure 2

As discussed in the present application, the memory card 200 may include pins for the Secure Digital standard. "The memory card 200 may also include additional pins as specified by the USB standard. For example, the USB port shown in FIG. 2 includes serial data pins D+ and D-." Paragraph [0022]; see also paragraph [0025] ("The mating SD port 404 may be electrically connected to the SD port 104 of the memory card 100. In this case, the USB port 102 of the memory card 100 is not electrically connected.").

In contrast to this, Son teaches a memory card in which pins for a first standard are a subset of the pins for a second standard.

FIG. 1

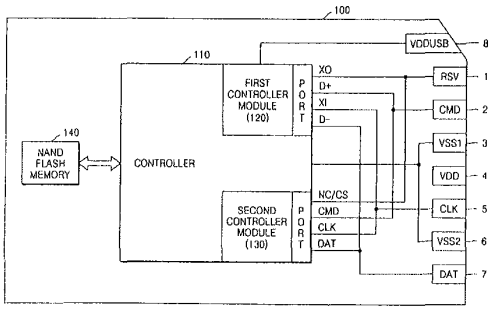


FIG. 2

Pin #	MMC Mode			SPI Mode			USB Mode		
	Name	Type	Description	Name	Type	Description	Name	Type	Description
1	RSV	NC	Reserved	CS	I	Chip select	XO	O	Clock Output
2	CMD	IO	Command/ Response	DI	I	Data In	D+	IO	USB D+ Data
3	VSS1	S	Ground	VSS	S	Ground	VSS1	S	Ground
4	VDD	S	Power	VDD	S	Power	RSV	NC	Reserved
5	CLK	I	Clock	SCLK	I	Clock	XI	I	Clock Input
6	VSS2	S	Ground	VSS2	S	Ground	VSS2	S	Ground
7	DAT	IO	Data	DO	O	Data Out	D-	IO	USB D- Data
8	-	-	-	-	-	-	VDDu	S	USB Power

For example, as shown in Figure 2 of Son, all of the pins for MMC Mode and SPI Mode (pins 1-7) are used in the USB Mode. In this way, Son requires that the layouts of the pins for the various modes must conform to one another. In contrast, claim 8 allows for greater flexibility in

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the layouts of the I/O port and the USB port in that the pins for the I/O port need not be included as a pin for the USB port. For example, the layout of the I/O port can be different from the layout of the USB port. See claim 38. In this way, the I/O port can mate with an external port without any electrical connection to the USB port. See claim 39. Thus, for at least the reasons cited, claim 8 is patentable over the cited art. Further, claims 9-15 and 36-39 are patentable at least by virtue of their dependence on allowable claim 8.

Claim 22:

Claim 22 recites in part:

> with a portable handheld card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry in communication with the USB port; an input/output (I/O) port comprising a second set of pins; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the second set of pins is not included in the first set of pins

As discussed above, Son fails to teach or suggest these limitations. Thus, for at least the reasons cited, claim 22 is patentable over the cited art. Further, claims 23-28 are patentable at least by virtue of their dependence on allowable claim 22.

Claim 29:

Claim 29 recites in part:

> with a portable handheld memory card comprising a Universal Serial Bus (USB) port comprising a first set of pins; USB controller circuitry in communication with the USB port; an input/output (I/O) port comprising a second set of pins; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port and wherein at least one of the second set of pins is not included in the first set of pins

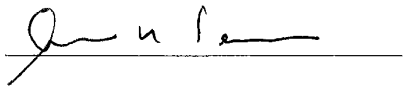
As discussed above, Son fails to teach or suggest these limitations. Thus, for at least the reasons cited, claim 29 is patentable over the cited art. Further, claims 30-35 are patentable at least by virtue of their dependence on allowable claim 29.

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SUMMARY

Applicant respectfully requests the Examiner to grant allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



Attorney for Applicant

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P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0153

Electronic Patent Application Fee Transmittal

Application Number:	11986389
Filing Date:	20-Nov-2007
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Filer:	Amir N. Penn/Consuelo Henry
Attorney Docket Number:	10519-226

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

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:				
Extension - 2 months with $0 paid	1252	1	490	490

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
		Total in USD ($)		**490**

Electronic Acknowledgement Receipt	
EFS ID:	9515857
Application Number:	11986389
International Application Number:	
Confirmation Number:	2143
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Customer Number:	67813
Filer:	Amir N. Penn/Consuelo Henry
Filer Authorized By:	Amir N. Penn
Attorney Docket Number:	10519-226
Receipt Date:	23-FEB-2011
Filing Date:	20-NOV-2007
Time Stamp:	16:32:45
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$490
RAM confirmation Number	4498
Deposit Account	231925
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees) Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees) Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		10519-226Response-Extension022311.pdf	464113 5b0b35c28acf451d2ab7820301f8bbef1634a86b	yes	13

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Miscellaneous Incoming Letter	1	1
	Extension of Time	2	3
	Amendment/Req. Reconsideration-After Non-Final Reject	4	4
	Claims	5	9
	Applicant Arguments/Remarks Made in an Amendment	10	13

Warnings:					
Information:					
2	Fee Worksheet (PTO-875)	fee-info.pdf	30310 5206be4d115fa2b0e2f623152f846eb3117860bd	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	494423		

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.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: February 23, 2011 Name: Amir N. Penn (Reg. No. 40,767 Signature:

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.:	2143
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH		
Attorney Docket No:	10519-226 (SDA-1240-US)		

TRANSMITTAL

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Transmittal (1 pg); Response to Office Action mailed September 24, 2010 (10 pgs); Petition and Fee for Extension of Time (2 pgs).

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☒ An extension fee in an amount of $490.00 for a two-month extension of time under 37 CFR § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 CFR § 1.17(t).

☐ An additional filing fee has been calculated as shown below:

					Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra	Rate	Add'l Fee	OR	Rate	Add'l Fee
Total	26	Minus	35	0	x $26=			x $52=	$
Indep.	3	Minus	3	0	x 110=			x $220=	
First Presentation of Multiple Dep. Claim					+$195=			+ $390=	
					Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $490.00 for two-month extension of time.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

February 23, 2011
Date

Amir N. Penn (Reg. No. 40,767)

Doc. No. 825892

Petitioner Micron Ex-1004, 0159

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: February 23, 2011 Name: Amir N. Penn (Reg. No.: 40,767) Signature:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.:	2143
Appln. No.:	11/986,389	Examiner:	Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit:	2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH		
Attorney Docket No:	10519-226 (SDA-1240-US)		

PETITION AND FEE FOR EXTENSION OF TIME (37 CFR § 1.136(a))

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a petition for an extension of the time to respond to Office Action dated September 24, 2010 for a period of 2 months.

Applicant is: ☐ small entity (per 37 CFR 1.27) ☒ other than small entity

	Extension Months	Other Than Small Entity	Small Entity
☐	One Month	$130.00	$65.00
☒	Two Months	$490.00	$245.00
☐	Three Months	$1,110.00	$555.00
☐	Four Months	$1,730.00	$865.00
☐	Five Months	$2,350.00	$1,175.00

Payment Method:

☐ Payment by credit card in the amount of $_____ to cover the fees listed above. Form PTO-2038 is enclosed for this purpose.

☒ The Commissioner is hereby authorized to charge $490.00 to cover the fees listed above to Deposit Account No. 23-1925.

☒ The Commissioner is hereby authorized to charge any deficiencies in fees or credit overpayment to Deposit Account No. 23-1925.

Respectfully submitted,

Dated: February 23, 2011

Amir N. Penn (Reg. No.: 40,767)
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
PO BOX 10395
CHICAGO, IL 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0161

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/986,389	11/20/2007	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 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			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	02/23/2011	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 26	Minus	** 34	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***5	= 0	X $ =		OR	X $220=	0
	☐ 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	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
	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 number found in the appropriate box in column 1.

Legal Instrument Examiner:
/Trina Steptoe/

This collection of information is required by 37 CFR 1.16. 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 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.**

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

UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 09/24/2010

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	

ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
09/24/2010	PAPER

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.

Petitioner Micron Ex-1004, 0163

Office Action Summary	Application No.	Applicant(s)	
	11/986,389	KANG, MYEONG JOON	
	Examiner	Art Unit	
	ERIC T. OBERLY	2184	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 *03 May 2010*.

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

3)☐ 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

4)☒ Claim(s) *8-15,22-25,27-29 and 31-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-15,22-25,27-29 and 31-35* is/are rejected.

7)☒ Claim(s) *22-28* is/are objected to.

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

Application Papers

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

10)☐ The drawing(s) filed on _____ 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).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).

a)☐ All b)☐ Some * c)☐ None of:

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) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Petitioner Micron Ex-1004, 0164

DETAILED ACTION
Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/3/2010 has been entered.

Claim Objections

Claims 22-28 are objected to because of the following informalities:

Claim 22 line 11 after “on” delete “a”.

Claims 23-28 objected to due to dependence on claim 22.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 11-15, 29, 33 and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Son et al. (US Patent # 7287703), hereinafter referred to as Son.

Referring to claim 8, Son teaches a portable handheld memory card (Fig. 1) comprising: a Universal Serial Bus (USB) port (PORT connected to first controller module (120) for connecting to USB Host; fig. 1, col. 4, lines 37-48); USB controller (first controller module 120, Fig. 1) circuitry in communication with the USB port (PORT connected to first controller module (120) for connecting to USB Host; fig. 1, col. 4, lines 37-48); an input/output (I/O) port (PORT connected to Second Controller module (130), Fig. 1); a memory (NAND flash memory 140, Fig. 1) in communication with the USB port and the I/O port (memory 140 in communication with first and second controller modules and respective ports via controller 110); and a housing (Multi-Media Card (MMC)/Secure Digital (SD) form-factor 100, Fig. 1) storing the memory and exposing the USB port and the I/O port (NOTE: the ports are exposed as the pins 1-8, fig. 1), wherein the USB port and the I/O port are positioned on a same end (fig. 1, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction).

As to claim 11, Son teaches a power management unit (VDDUSB, pin 8, Fig. 1) in communication with the USB controller circuitry (The first controller module 120 operates in response to a supply voltage (such as a USB voltage) applied to the USB power pin 8; col. 4, lines 49-51).

As to claim 12, Son teaches a host interface module (second controller module (130); fig. 1) in communication with the I/O port (PORT connect to 130, fig. 1; second controller module for controlling communication with a host, col. 4, lines 38-48).

As to claim 13, Son teaches circuitry configured to control read and write operations to the memory (NOTE: the NAND flash memory is used in the read/write memory card, col. 1 lines 22-23, controlling the read/write operations is an inherent feature of controller 110).

As to claim 14, Son teaches the I/O port comprises a Secure Digital port (NOTE: Son anticipates the second controller module 130 and respective port as an MMC interface controller or SD interface controller; col. 4, lines 38-48).

As to claim 15, Son teaches the memory comprises Flash memory (NAND Flash memory 140, Fig. 1).

Referring to claim 29, Son discloses a method comprising: with a portable handheld memory card (Fig. 1) comprising: a Universal Serial Bus (USB) port (PORT connected to first controller module (120) for connecting to USB Host; fig. 1, col. 4, lines 37-48); USB controller (first controller module 120, Fig. 1) circuitry in communication with the USB port (PORT connected to first controller module (120) for connecting to USB Host; fig. 1, col. 4, lines 37-48); an input/output (I/O) port (PORT connected to

Second Controller module (130), Fig. 1); a memory (NAND flash memory 140, Fig. 1) in communication with the USB port and the I/O port (memory 140 in communication with first and second controller modules and respective ports via controller 110); and a housing (Multi-Media Card (MMC)/Secure Digital (SD) form-factor 100, Fig. 1) storing the memory and exposing the USB port and the I/O port (NOTE: the ports are exposed as the pins 1-8, fig. 1), wherein the USB port and the I/O port are positioned on a same end (fig. 1, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction): reading data from the memory (NOTE: the NAND flash memory is used in the read/write memory card, col. 1 lines 22-23, controlling the read/write operations is an inherent feature of controller 110); determining (responsive to voltage applied) whether the data is to be transmitted via the USB port or I/O port (interface the MMC/SD form-factor compliant memory card to a USB host device according to a USB interface protocol responsive to a USB voltage applied to the USB power contact…configured to interface the MMC/SD form-factor compliant memory card to an MMC/SD host device according to an MMC/SD interface protocol responsive to an MMC/SD voltage applied to the MMC/SD power contact; col. 2, lines 15-30); and transmitting the data to the host device via the determined port (NOTE: the NAND flash memory is used in the read/write memory card, col. 1 lines 22-23, transmitting data with respect to the read/write operations is an inherent feature of controller 110).

As to claim 33, Son discloses the I/O port comprises a Secure Digital port (NOTE: Son anticipates the second controller module 130 and respective port as an MMC interface controller or SD interface controller; col. 4, lines 38-48).

As to claim 34, Son discloses the memory comprises Flash memory (NAND Flash memory 140, Fig. 1).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 9 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Son in view of Holtzman et al. (US PGPub # 2006/0177064), hereinafter referred to as Holtzman.

As to claim 9, Son does not appear to explicitly disclose a decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Holtzman discloses a decryption circuitry (crypto-engine 40, Fig. 1A) in communication with the memory and configured to decrypt encrypted data stored in the memory (encrypted data in memory…the encrypted data is decrypted; [0020]).

Son and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son and Holtzman before him or her, to modify the memory card of Son to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Son and Holtzman to obtain the invention as specified in the instant claim.

As to claim 30, Son does not appear to explicitly disclose wherein the data is encrypted data, and wherein the method further comprises: decrypting the encrypted data to decrypted data.

However, Holtzman discloses wherein the data is encrypted data (encrypted data in memory, [0020]), and wherein the method further comprises: decrypting the encrypted data to decrypted data (the encrypted data is decrypted; [0020]).

Son and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son and Holtzman before him or her, to modify the memory card of Son to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Son and Holtzman to obtain the invention as specified in the instant claim.

Claims 10, 22, 25-28, 31, 32 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Son in view of Petersen et al (US Patent # 7433994), hereinafter referred to as Petersen.

As to claim 10, Son does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Petersen discloses decompression circuitry (co-processor 26, Fig. 3) configured to decompress compressed data stored in the memory (compressed cached data written to flash memory and read out as compressed; co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20).

Son and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son and Petersen before him or her, to modify the memory card of Son to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Son and Petersen to obtain the invention as specified in the instant claim.

Referring to claim 22, Son discloses a method comprising: with a portable handheld memory card (Fig. 1) comprising: a Universal Serial Bus (USB) port (PORT connected to first controller module (120) for connecting to USB Host; fig. 1, col. 4, lines 37-48); USB controller (first controller module 120, Fig. 1) circuitry in communication with the USB port (PORT connected to first controller module (120) for connecting to USB Host; fig. 1, col. 4, lines 37-48); an input/output (I/O) port (PORT connected to Second Controller module (130), Fig. 1); a memory (NAND flash memory 140, Fig. 1) in communication with the USB port and the I/O port (memory 140 in communication with first and second controller modules and respective ports via controller 110); and a housing (Multi-Media Card (MMC)/Secure Digital (SD) form-factor 100, Fig. 1) storing the memory and exposing the USB port and the I/O port (NOTE: the ports are exposed as the pins 1-8, fig. 1), wherein the USB port and the I/O port are positioned on a same end (fig. 1, all pins for respective ports located on same end) to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (NOTE: the pins are on the same end, therefore the housing allows same card-insertion direction).

While Son discloses transmitting the data on the I/O port and the USB Port (NOTE: the NAND flash memory is used in the read/write memory card, col. 1 lines 22-23, using the selected port to transmit data with respect to the read/write operations is an inherent feature of the controller), Son does not appear to explicitly disclose reading compressed data from the memory; decompressing the compressed data to decompressed data; transmitting the decompressed data; converting the compressed data to first converted data for transmission on a the USB port; and transmitting the first converted data on the USB port.

However, Petersen discloses reading compressed data from the memory (compressed cached data written to flash memory and read out at compressed; col. 3, lines 5-20); decompressing the compressed data to decompressed data (co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20); transmitting the decompressed data (Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45);

With regards to the limitations: converting the compressed data to first converted data for transmission on the USB port; and transmitting the first converted data on the USB port. Though Son does not specifically state the first controller module converting the data read from the memory to a first converted data for transmitting on the USB port, as the first controller module is in communication with a USB Host, it would be required to convert the data read from the flash memory to a format for USB transmission. Therefore it is inherent that the first controller module converts the data read from the memory to a first converted data for transmitting on the USB port.

Furthermore, Petersen discloses the conventional method of compression mechanism preformed by the host system (col. 1, lines 50-57). Therefore, transmitting compressed data from the memory to the host on the USB port is an obvious variant to transmission of decompressed data.

Son and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son and Petersen before him or her, to modify the memory card of Son to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Son and Petersen to obtain the invention as specified in the instant claim.

As to claim 25, while the combination of Son and Petersen discloses the transmitting decompressed data (Petersen: decompression of the data read from the flash memory array, col. 3, lines 5-20; Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45) on the I/O port (Son: PORT connected to Second Controller module (130), Fig. 1), the combination does not appear to explicitly disclose converting

the data to second converted data for transmission on the I/O port; and transmitting the second converted data on the I/O port.

Though Son does not specifically state the second controller module converting the data read from the memory to a second converted data for transmitting on the MMC/SD port, as the second controller module is in communication with a MMC/SD Host device, it would be required to convert the data read from the flash memory to a format for MMC/SD transmission. Therefore it is inherent that the second controller module converts the data read from the memory to a second converted data for transmitting on the MMC/SD port.

As to claim 26, Son discloses controlling reading and writing to the memory (NOTE: the NAND flash memory is used in the read/write memory card, col. 1 lines 22-23, controlling the read/write operations is an inherent feature of controller 110).

As to claim 27, Son discloses the I/O port comprises a Secure Digital port (NOTE: Son anticipates the second controller module 130 and respective port as an MMC interface controller or SD interface controller; col. 4, lines 38-48).

As to claim 28, Son discloses the memory comprises Flash memory (NAND Flash memory 140, Fig. 1).

As to claim 31, while the combination of Son in view of Petersen discloses the transmission of compressed data (Petersen: conventional method of compression/decompression mechanism preformed by the host system; col. 1, lines 50-57), the combination does not appear to explicitly disclose converting the compressed data to first converted data for transmission.

Though Son does not specifically state the first controller module converting the data read from the memory to a first converted data for transmitting on the USB port, as the first controller module is in communication with a USB Host, it would be required to convert the data read from the flash memory to a format for USB transmission. Therefore it is inherent that the first controller module converts the data read from the memory to a first converted data for transmitting on the USB port.

As to claim 32, while the combination of Son in view of Petersen discloses the transmission of decompressed data (Petersen: decompression of the data read from the flash memory array, col. 3, lines 5-20; Fig. 4, data is transferred through host interface 14; col. 2, lines 38-45), the combination does not appear to explicitly disclose converting the decompressed data to second converted data for transmission.

Though Son does not specifically state the second controller module converting the data read from the memory to a second converted data for transmitting on the MMC/SD port, as the second controller module is in communication with a MMC/SD Host device, it would be required to convert the data read from the flash memory to a format for MMC/SD transmission. Therefore it is inherent that the second controller

module converts the data read from the memory to a second converted data for transmitting on the MMC/SD port.

As to claim 35, Son does not appear to explicitly disclose wherein the data is compressed data, and wherein the method further comprises: decompressing the compressed data to decompressed data.

However, Petersen discloses wherein the data is compressed data (compressed cached data written to flash memory; col. 3, lines 5-20), and wherein the method further comprises: decompressing the compressed data to decompressed data (co-processor...to perform...decompression of the data read from the flash memory array; col. 3, lines 5-20).

Son and Petersen are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son and Petersen before him or her, to modify the memory card of Son to include the compression/decompression circuitry of Petersen because compression/decompression capability would reduce the burden/requirements of a host system to provide the compression/decompression.

The suggestion/motivation for doing so would have been to eliminate the requirement of a compression algorithm provided on the host system to which the memory device is connected (col. 2, line 63 to col. 3, line 5)

Therefore, it would have been obvious to combine Son and Petersen to obtain the invention as specified in the instant claim.

Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Son in view Peterson, as applied to claims 10, 22, 25-28, 31, 32 and 35 above, further in view of Holtzman.

As to claim 23, while the combination of Son in view of Petersen discloses transmitting data on the I/O port, the combination does not appear to explicitly disclose reading encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port.

However, Holtzman discloses reading encrypted data from the memory (encrypted data in memory 20 is fetched; [0020]); decrypting the encrypted data to decrypted data (the encrypted data is decrypted; [0020]); and transmitting the decrypted data on the I/O port (decrypted data is then sent…to the host device; [0020]).

Son in view Peterson and Holtzman are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son in view Peterson and Holtzman before him or her, to modify the memory card of Son in view Peterson to include the encrypt/decrypt circuitry of Holtzman because circuitry would maximize the security of the memory card

The suggestion/motivation for doing so would have been to maximize the security of the memory card (Holtzman, [0004])

Therefore, it would have been obvious to combine Son in view Peterson and Holtzman to obtain the invention as specified in the instant claim.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Son in view Peterson, as applied to claims 10, 22, 25-28, 31, 32 and 35 above, further in view of Liu et al. (US PGPub 2003/0212848), hereinafter referred to as Liu.

As to claim 24, Son in view of Petersen does not appear to explicitly disclose converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

However, Liu discloses converting a first voltage of the USB port to a second voltage of the portable handheld memory card (a power source transfer and protection circuit (18) to convert the voltage at…the USB interface currently used to the internal voltage of the CF card; [0023]).

Son in view of Petersen and Liu are analogous art because they are from the same field of endeavor, multi-interface memory cards.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Son in view of Petersen and Liu before him or her, to modify the memory card of Son in view of Petersen to include the voltage transformation and protection circuit of Liu because the circuit would allow the USB voltage to be converted for use by the internal components of the memory card while also providing isolation and protection to the memory card components.

The suggestion/motivation for doing so would have been allow the USB voltage to be converted for use by the internal components of the memory card while also providing isolation and protection to the memory card components (Liu, [0023])

Therefore, it would have been obvious to combine Son in view of Petersen and Liu to obtain the invention as specified in the instant claim.

Response to Arguments

Applicant's arguments with respect to claims 8-15, 22-25, 27-29, and 31-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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

US Patent # 7376773 of Kim et al. is pertinent to Multi-standard protocol storage devices.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. OBERLY whose telephone number is (571)272-6991. The examiner can normally be reached on Monday - Friday 7:30 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. 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.

/E. T. O./

/Henry W.H. Tsai/

Supervisory Patent Examiner, Art Unit 2184

Notice of References Cited	Application/Control No. 11/986,389	Applicant(s)/Patent Under Reexamination KANG, MYEONG JOON	
	Examiner ERIC T. OBERLY	Art Unit 2184	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2003/0212848 A1	11-2003	Liu et al.	710/305
*	B	US-2006/0177064 A1	08-2006	Holtzman et al.	380/277
*	C	US-7,287,703 B2	10-2007	Son et al.	235/482
*	D	US-7,376,773 B2	05-2008	Kim et al.	710/74
*	E	US-7,433,994 B2	10-2008	Petersen et al.	711/103
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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.

Petitioner Micron Ex-1004, 0182

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009	09/15/2010						
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	3	✓	-	-						
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	5	✓	-	-						
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	35		✓	✓						

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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	6/25/2009	Eric Oberly
EAST 710/74 String Search	6/25/2009	Eric Oberly
IDS Search	6/25/2009	Eric Oberly
Google Scholar Search: Memory Card USB port	6/26/2009	Eric Oberly
Google Scholar Search: multiple interface protocol memory card	11/23/2009	Eric Oberly
Updated EAST Search	11/24/2009	Eric Oberly
EAST 710/74 String Search	9/15/2010	Eric Oberly
NPL Search: Google and ACM Digital Library	9/15/2010	Eric Oberly

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	101	(memory near card) (multiple near (port or interface))(detector) (determine)(USB)	US-PGPUB; USPAT	AND	ON	2010/09/15 12:29
L3	900	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2010/09/15 12:31
L4	15	(("7287703") or ("20040177215") or ("20050114587") or ("20050251609") or ("20080270663") or ("7171502") or ("7039759") or ("6233640") or ("20070223705") or ("7184274") or ("7708195") or ("7184274") or ("5623637") or ("20060177064") or ("7376773") or ("20030515848")).PN. or (11/771752).APP.	US-PGPUB; USPAT	OR	OFF	2010/09/15 12:41
L5	13	("20030046472" | "20040070952" | "6168077" | "6439464" | "6557754" | "6663007" | "6796501" | "6851014" | "6857038" | "7171502" | "7191270").PN. OR ("7376773").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2010/09/15 12:45
L6	27	(710/74.ccls.)(USB)(SD) (Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2010/09/15 12:47
L7	11	(US-20050063540-$ or US-20080071940-$ or US-20040177215-$ or US-20040255054-$ or US-20070223705-$ or US-20060177064-$ or US-20040070952-$).did. or (US-7287703-$ or US-7433994-$ or US-7708195-$ or US-7376773-$).did.	US-PGPUB; USPAT	OR	ON	2010/09/15 12:51

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S1	2	kang-myeong.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:50
S2	1	11/986389.app.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:51
S4	7	kang-myeong-joon.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:52
S5	745	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/06/25 17:42
S7	20	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/06/25 17:43
S8	13	("20020147882" | "6216230" | "6654841" | "6763399" | "6772233" | "7011247" | "7039759" | "7039780").PN. OR ("7296098").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 18:32
S10	19	("6808424" | "6813164" | "6890188" | "6908038" | "6944028").PN. OR ("7104809").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:34
S12	34	("20030095386" | "20030100203" | "20040033727" | "20040087194" | "20050230483" | "20050230484" | "20060084287" | "20060208066" | "20060273154" | "20060278723" | "20070145135" | "5818030" | "6116927" | "6375479" | "6381143" | "6385677" | "6427837" | "6439900" | "6561421" | "6567273" | "6676419" | "6676420" | "6763410" | "6792487" | "6824066" | "6854984" | "6883718" | "6890188" | "6908038" | "6993618" | "7004794" | "7009847" | "7025275").PN. OR ("7344072").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:37
S15	2	10/826796.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 21:04

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S18	27	("4380699" | "4581716" | "4649418" | "5184209" | "5244840" | "5272374" | "5299046" | "5450366" | "5455785" | "5736782" | "5861662" | "5877547" | "6262915").PN. OR ("6501163").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 10:37
S22	10	("5036429" | "5091856" | "5180906").PN. OR ("5396617").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:10
S24	19	("5613092" | "5651116" | "5819050" | "5835864" | "5867795" | "5875415" | "5938750" | "5954808" | "6014748" | "6032135"). PN. OR ("6192436"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:21
S28	2	("6067199" | "6654851"). PN. OR ("7433994"). URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:52
S31	1	10/425899.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 14:03
S33	14	(US-20050216624-$ or US-20020049887-$ or US-20060084287-$ or US-20020186842-$ or US-20040083378-$).did. or (US-7162549-$ or US-7296098-$ or US-7011247-$ or US-6216230-$ or US-7104809-$ or US-7344072-$ or US-7491076-$ or US-6669487-$ or US-7433994-$).did.	US-PGPUB; USPAT	OR	ON	2009/06/26 14:48
S34	15	(("7104809") or ("7344072") or ("20060084287") or ("6748485") or ("6501163") or ("6669487") or ("6820148") or ("5396617") or ("6192436") or ("5996033") or ("7090124") or ("7433994") or ("20040083378") or ("20020186842") or ("20050063540")).PN.	US-PGPUB; USPAT	OR	OFF	2009/06/27 16:04

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S35	1	"20040182938".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:41
S36	1	"7237049".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:49
S38	1	"20050086408".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:51
S39	1	"20080071940".pn.	US-PGPUB; USPAT	OR	ON	2009/11/23 17:12
S40	2	(("7062585") or ("7152801")).PN.	US-PGPUB; USPAT	OR	OFF	2009/11/23 17:24
S41	82	("20010009505" | "20030100203" | "20030212848" | "20030233507" | "20040033726" | "20040033727" | "20040039854" | "20040089717" | "20050037647" | "4555619" | "5155663" | "5457601" | "5486687" | "5752857" | "5815426" | "5887145" | "5969333" | "5984708" | "6040622" | "6069795" | "6097605" | "6121681" | "6137710" | "6151652" | "6181564" | "6243686" | "6256692" | "6266724" | "6279114" | "6295206" | "6325291" | "6330151" | "6341728" | "6353870" | "6381143" | "6385677" | "6422469" | "6435409" | "6438638" | "6439464" | "6483038" | "6518927" | "6524137" | "6561421" | "6567273" | "6580615" | "6590615" | "6612498" | "6617673" | "6623304" | "6632097" | "6646885" | "6669487" | "6676420" | "6733340" | "6738259" | "6763410" | "6820148" | "6890188" | "6901457" | "6908038" | "D444473" | "D445111" | "D446525").PN. OR ("7152801").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/23 17:41
S42	785	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/11/24 12:33

Petitioner Micron Ex-1004, 0188

S43	21	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:33
S44	26925	(memory near card)(multiple)(port)(interface)(determine)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:34
S45	19438	(memory near card)(multiple)(port)(interface)(determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:35
S46	800	(memory near card)(multiple near (port or interface))(determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:35
S47	85	(memory near card)(multiple near (port or interface))(detector)(determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:36

EAST Search History (Interference)

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9/15/2010 12:53:08 PM
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Petitioner Micron Ex-1004, 0189

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Kang		
Appln. No.:	11/986,389	Examiner:	Oberly
Filed:	November 20, 2007	Art Unit:	2184
For:	Portable Handheld Memory Card and Methods for Use Therewith	Conf. No.:	2143
Attorney Docket No.:	10519-226 (SDA-1240-US)		

Mail Stop RCE
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

REQUEST FOR CONTINUED EXAMINATION (37 CFR § 1.114)

Sir:

Applicant(s) requests continued examination of the above-identified application under 37 CFR §1.114.

☒ Submission under 37 CFR 1.114 (*check at least one of the following*):

- ☐ Previously submitted:
  - ☐ Applicant(s) requests nonentry of any previously-filed unentered amendments.
  - ☐ Please enter and consider the Amendment After Final Under 37 CFR §1.116 previously filed on _____.
  - ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____.
  - ☐ Other: _____.
- ☒ Attached is/are:
  - ☐ An Information Disclosure Statement
  - ☒ An Amendment to the written description, claims, or drawings
  - ☐ New Arguments and/or New Evidence in support of Patentability
  - ☐ Other: _____

Petitioner Micron Ex-1004, 0190

☐ Request for suspension of action:

Applicant(s) hereby requests suspension of action on the above-identified application under 37 CFR §1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; requires Processing Fee under 37 CFR §1.17(i)).

☐ Small Entity Status:

- ☐ Applicant(s) hereby asserts entitlement to claim small entity status under 37 CFR §§ 1.9 and 1.27.
- ☐ A small entity statement or assertion of entitlement to claim small entity status was filed in prior application no. _____/_____ and such status is still proper and desired.
- ☐ Is no longer desired.

☒ Applicant(s) calculate the following fees to be due in connection with this Request:

- ☒ A request fee of $810.00 under 37 CFR §1.17(e).
- ☐ A suspension processing fee of $_____ under 37 CFR §1.17(i).
- ☐ An additional filing fee of $_____ under 37 CFR §1.16 (_____ additional independent claims and/or _____ additional total claims).
- ☒ An extension fee of $490.00 under 37 CFR §1.17(a) for a two-month extension of time.

☒ Fee payment to cover the above-enumerated fee(s):

- ☒ Please charge Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE) in the amount of $1,300.00.
- ☐ A payment by credit card in the amount of $_____ (Form PTO-2038 is attached).
- ☒ The Commissioner is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925 (BRINKS HOFER GILSON & LIONE).

Respectfully submitted,

May 3, 2010
Date

Joseph F. Hetz (Reg. No. 41,070)

Petitioner Micron Ex-1004, 0191

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Myeong Joon Kang	Conf. No.: 2143
Appln. No.:	11/986,389	Examiner: Oberly, Eric T.
Filed:	November 20, 2007	Group Art Unit: 2184
For:	PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	
Attorney Docket No:	10519-226 (SDA-1240-US)	

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313

Dear Sir:

Please enter the following amendment and remarks in response to the Office Action mailed December 1, 2009.

Petitioner Micron Ex-1004, 0192

AMENDMENTS TO THE CLAIMS:

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

Listing of Claims

1. - 7. (Cancelled)

8. (Currently Amended) A portable handheld memory card comprising:

a Universal Serial Bus (USB) port;

USB controller circuitry in communication with the USB port;

an input/output (I/O) port;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.

9. (Original) The portable handheld memory card of Claim 8 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

10. (Original) The portable handheld memory card of Claim 8 further comprising:

decompression circuitry configured to decompress compressed data stored in the memory.

11. (Original) The portable handheld memory card of Claim 8 further comprising:

a power management unit in communication with the USB controller circuitry.

12. (Original) The portable handheld memory card of Claim 8 further comprising: a host interface module in communication with the I/O port.

13. (Original) The portable handheld memory card of Claim 8 further comprising:

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circuitry configured to control read and write operations to the memory.

14. (Original) The portable handheld memory card of Claim 8, wherein the I/O port comprises a Secure Digital port.

15. (Original) The portable handheld memory card of Claim 8, wherein the memory comprises Flash memory.

16. - 21. (Cancelled)

22. (Currently Amended) A method comprising:

with a portable handheld card comprising a Universal Serial Bus (USB) port; USB controller circuitry in communication with the USB port; an input/output (I/O) port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port:

reading compressed data from the memory;

decompressing the compressed data to decompressed data;

transmitting the decompressed data on the I/O port;

converting the compressed data to first converted data for transmission on a the USB port; and

transmitting the first converted data on the USB port.

23. (Original) The method of Claim 22 further comprising:

reading encrypted data from the memory;

decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

24. (Original) The method of Claim 22 further comprising:

converting a first voltage of the USB port to a second voltage of the portable handheld

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memory card.

25. (Original) The method of Claim 22 further comprising:

converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

26. (Original) The method of Claim 22 further comprising: controlling reading and writing to the memory.

27. (Original) The method of Claim 22, wherein the I/O port comprises a Secure Digital port.

28. (Original) The method of Claim 22, wherein the memory comprises Flash memory.

29. (Currently Amended) A method comprising:

with a portable handheld memory card comprising a Universal Serial Bus (USB) port; USB controller circuitry in communication with the USB port; an input/output (I/O) port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port:

reading data from the memory;

determining whether the data is to be transmitted via the USB port or I/O port; and

transmitting the data to the host device via the determined port.

30. (Currently Amended) The method of Claim 29, wherein the data is encrypted data, and wherein the method further comprises:

decrypting the encrypted data to decrypted data.

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31. (Previously Presented) The method of Claim 35 further comprising:

converting the compressed data to first converted data for transmission.

32. (Previously Presented) The method of Claim 35 further comprising:

converting the decompressed data to second converted data for transmission.

33. (Original) The method of Claim 29, wherein the I/O port comprises a Secure Digital port.

34. (Original) The method of Claim 29, wherein the memory comprises Flash memory.

35. (Previously Presented) The method of Claim 29, wherein the data is compressed data, and wherein the method further comprises:

decompressing the compressed data to decompressed data.

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REMARKS

I. Office Action Summary

Claims 8-15, 22-25, 27-29, and 31-35 are pending. Claims 8, 22 and 29 are independent claims.

II. Rejections under 35 U.S.C. §§ 102, 103

In the final Office Action mailed December 1, 2009, claims 8 and 11-15 were rejected under 35 U.S.C. § 102(b) as being anticipated by Miller et al. (U.S. Publication No. 2006/0084287). Claims 9, 10 and 22-28 were rejected under 35 U.S.C. § 103(a) as being obvious over Miller in view of Hsiung et al. (U.S. Publication No. 2005/0063540). Claims 29, 33 and 34 were rejected under 35 U.S.C. § 103(a) as being obvious over Miller in view of Kim et al. (U.S. Publication No. 2008/0071940). Claims 30-32 and 35 were rejected under 35 U.S.C. § 103(a) as being obvious over Miller in view of Kim and in view of Hsiung.

Claim 8

Claim 8 recites a portable handheld memory card that includes:

> a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.

In rejecting claim 8, the Office Action interprets the Miller reference as teaching a USB port and an I/O port that are positioned to allow a same card-insertion direction, citing Figure 1b of Miller (reproduced below):

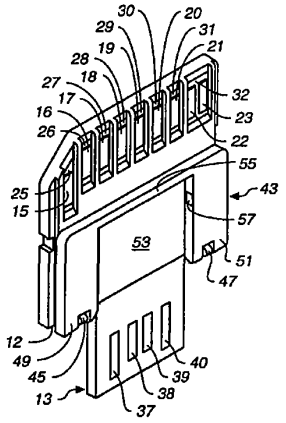


FIG._1B

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The Office Action acknowledges that the ports in Miller are on opposite ends of the housing. However, the Office Action reasons that since the ports on both ends are both male plugs, Miller still teaches a USB port and an I/O port positioned to allow a same card-insertion direction. And, the Office Action further states the following:

> The Applicant is advised in making amendments, that should the claim language clearly depict a memory card in which the ports are located on the same end of the housing, the Applicant should also give consideration to the functional difference between the Applicant's invention and prior art. Without clearly claiming how the positioning of the ports renders the Applicant's invention as functionally different from the prior art, one of ordinary skill in the art may argue functional equivalence in which the port location is merely an obvious matter of design choice.

In response, Applicant clarifies claim 8 to recite that "the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port." Emphasis added. An example of this is depicted in Figure 2 of the present application (reproduced below):

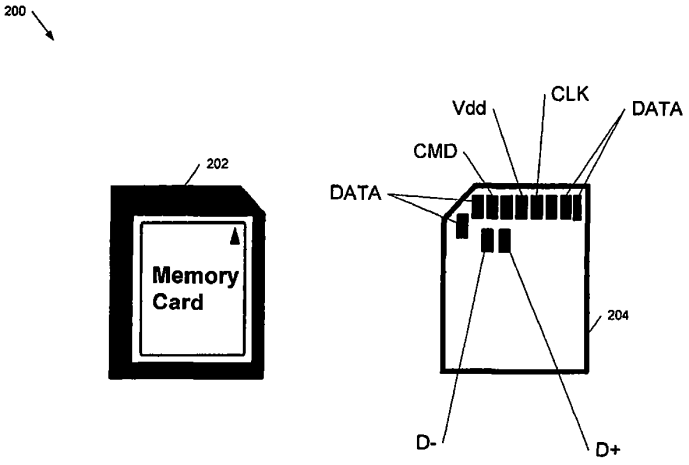


Figure 2

The placement of both USB port and an I/O port at the same end of the housing is not merely a design choice, as posited in the Office Action. The placement of the electrical contacts for both the USB port and the I/O port on the same end complicates the configuration of the housing. This is clearly shown both in the cited art and in the present application. For example, Figure 1b of Miller illustrates that attempting to move electrical contacts 37-40 to the opposite side would be difficult since there is scant area in which to move the electrical contacts 37-40 to be proximate to electrical contacts 15-23. And, apart from area constraints, the electrical contacts

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37-40 would need to be moved and arranged according to the USB specification, further complicating the moving of electrical contacts 37-40. As shown in Figure 2 of the present application (reproduced above), this placement of the electrical contacts for both the USB port and the I/O port are proximate to one another, which is not taught or even suggested in the cited art.

And, the placement of the electrical contacts on the same end enables the functional advantage of "allow[ing] a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port," as recited in claim 8. In this way, the user is not required to flip the memory card around when inserting the memory card in a USB port versus an I/O port. For at least the reasons cited, claim 8 is patentable over the cited art, as are its dependent claims.

Claim 22

Claim 22 recites a method with a portable handheld card that includes:

> a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.

As discussed above, the cited art fails to teach or even suggest the USB port and the I/O port are positioned on a same end as claimed. For at least the reasons cited, claim 22 is patentable over the cited art, as are its dependent claims.

Claim 29

Claim 29 recites a method with a portable handheld card that includes:

> a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned on a same end to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.

As discussed above, the cited art fails to teach or even suggest the USB port and the I/O port are positioned on a same end as claimed. For at least the reasons cited, claim 29 is patentable over the cited art, as are its dependent claims.

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SUMMARY

Applicant respectfully requests the Examiner to grant allowance of this application. The Examiner is invited to contact the undersigned attorneys for the Applicant via telephone if such communication would expedite this application.

Dated: May 3, 2010

Respectfully submitted,

Joseph F. Hetz
Reg. No. 41,070
Attorney for Applicants

BRINKS HOFER
GILSON & LIONE
P.O. Box 10395
Chicago, Illinois 60610
(312) 321-4719

Petitioner Micron Ex-1004, 0200

Electronic Patent Application Fee Transmittal

Application Number:	11986389
Filing Date:	20-Nov-2007
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Filer:	Joseph F. Hetz/Debra Augustine
Attorney Docket Number:	10519-226

Filed as Large Entity

Utility under 35 USC 111(a) Filing Fees

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:				
Extension - 2 months with $0 paid	1252	1	490	490

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for continued examination	1801	1	810	810
		Total in USD ($)		**1300**

Electronic Acknowledgement Receipt	
EFS ID:	7540591
Application Number:	11986389
International Application Number:	
Confirmation Number:	2143
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Customer Number:	67813
Filer:	Joseph F. Hetz/Edward Popoca
Filer Authorized By:	Joseph F. Hetz
Attorney Docket Number:	10519-226
Receipt Date:	03-MAY-2010
Filing Date:	20-NOV-2007
Time Stamp:	18:16:16
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	$1300
RAM confirmation Number	11159
Deposit Account	231925
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees) Charge any Additional Fees required under 37 C.F.R. Section 1.17 (Patent application and reexamination processing fees)	

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees) Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees) Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		11986389RCEAmendment.pdf	421096 4f5fc086c835f89149e7454965fcb6fb088dde35	yes	14

Multipart Description/PDF files in .zip description

Document Description	Start	End
Miscellaneous Incoming Letter	1	1
Extension of Time	2	3
Request for Continued Examination (RCE)	4	5
Amendment Submitted/Entered with Filing of CPA/RCE	6	6
Claims	7	10
Applicant Arguments/Remarks Made in an Amendment	11	14

Warnings:

Information:

2	Fee Worksheet (PTO-875)	fee-info.pdf	31983 2d7bf1bb61b570af92dc252f56a3ef98b365b3d3	no	2

Warnings:

Information:

Total Files Size (in bytes):	453079

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.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date:

Date: May 3, 2010 Name: Joseph F. Hetz, Reg. No. 41,070 Signature: _____

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Kang		
Appln. No.:	11/986,389	Examiner:	Oberly
Filed:	November 20, 2007	Art Unit:	2184
For:	Portable Handheld Memory Card and Methods for Use Therewith	Conf. No.:	2143

Attorney Docket No.: 10519-226 (SDA-1240-US)

TRANSMITTAL

Mail Stop RCE
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Petition and Fee for Extension of Time (2 pages); Request for Continued Examination (2 pages); Amendment (9 pages).

Fee calculation:

☐ No additional fee is required.

☐ Small Entity.

☒ An extension fee in an amount of $490.00 for a two-month extension of time under 37 CFR § 1.136(a).

☒ A petition or processing fee in an amount of $810.00 for a Request for Continued Examination under 37 CFR § 1.17(e).

☐ An additional filing fee has been calculated as shown below:

						Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra		Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus				x $26=			x $52=	
Indep.		Minus				x 110=			x $220=	
First Presentation of Multiple Dep. Claim						+$195=			+ $390=	
						Total	$		Total	$

Fee payment:

☒ Please charge Deposit Account No. 23-1925 in the amount of $1,300.00.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

May 3, 2010
Date

Joseph F. Hetz (Reg. No. 41,070)

Petitioner Micron Ex-1004, 0206

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of: Kang			
Appln. No.:	11/986,389	Examiner:	Oberly
Filed:	November 20, 2007	Art Unit:	2184
For:	Portable Handheld Memory Card and Methods for Use Therewith	Conf. No.:	2143
Attorney Docket No.: 10519-226 (SDA-1240-US)			

PETITION AND FEE FOR EXTENSION OF TIME (37 CFR § 1.136(a))

Mail Stop RCE
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This is a petition for an extension of the time to respond to the Office Action mailed December 1, 2009 for a period of two months.

Applicant is: ☐ small entity (per 37 CFR 1.27) ☒ other than small entity

	Extension Months	Other Than Small Entity	Small Entity
☐	One Month	$130.00	$65.00
☒	Two Months	$490.00	$245.00
☐	Three Months	$1,110.00	$555.00
☐	Four Months	$1,730.00	$865.00
☐	Five Months	$2,350.00	$1,175.00

Payment Method:

☐ Check in the amount of $_____ is enclosed to cover the fees listed above.

☐ Payment by credit card in the amount of $_____ to cover the fees listed above. Form PTO-2038 is enclosed for this purpose.

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

☒ The Commissioner is hereby authorized to charge $490.00 to cover the fees listed above to Deposit Account No. 23-1925.

☒ The Commissioner is hereby authorized to charge any deficiencies in fees or credit overpayment to Deposit Account No. 23-1925.

Respectfully submitted,

Dated: May 3, 2010

Joseph F. Hetz, Reg. No. 41,070
Attorney for Applicant(s)

BRINKS HOFER GILSON & LIONE
PO BOX 10395
CHICAGO, IL 60610
(312) 321-4200

Petitioner Micron Ex-1004, 0208

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/986,389	11/20/2007	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 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			TOTAL	

APPLICATION AS AMENDED – PART II

		(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
AMENDMENT	05/03/2010	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 22	Minus	** 34	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***5	= 0	X $ =		OR	X $220=	0
	☐ 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	0

		(Column 1)		(Column 2)	(Column 3)					
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	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 number found in the appropriate box in column 1.

Legal Instrument Examiner:
/VENESSA JONES/

This collection of information is required by 37 CFR 1.16. 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 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.**

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

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/986,389	11/20/2007	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 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			TOTAL	

APPLICATION AS AMENDED – PART II

		(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
	05/03/2010	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	Total (37 CFR 1.16(i))	* 22	Minus	** 34	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***5	= 0	X $ =		OR	X $220=	0
	☐ 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	0

		(Column 1)		(Column 2)	(Column 3)					
		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
AMENDMENT	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 number found in the appropriate box in column 1.

Legal Instrument Examiner:
/VENESSA JONES/

This collection of information is required by 37 CFR 1.16. 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 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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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 12/01/2009

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
12/01/2009	PAPER

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.

Petitioner Micron Ex-1004, 0211

Office Action Summary	Application No.	Applicant(s)	
	11/986,389	KANG, MYEONG JOON	
	Examiner	Art Unit	
	ERIC T. OBERLY	2184	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 *28 September 2009*.

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

3)☐ 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

4)☒ Claim(s) *8-15 and 22-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-15 and 22-35* is/are rejected.

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

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

Application Papers

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

10)☒ The drawing(s) filed on *20 November 2007* 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).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).

a)☐ All b)☐ Some * c)☐ None of:

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) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Petitioner Micron Ex-1004, 0212

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. (PGPub # 2006/0084287), hereinafter referred to as Miller.

Referring to claim 8, Miller teaches portable handheld memory card (fig. 1b) comprising: a Universal Serial Bus (USB) port (Fig. 1b, item 13); USB controller circuitry in communication with the USB port ([0044]; lines 3-6); an input/output (I/O) port (Fig. 1b, SD port); a memory in communication with the USB port and the I/O port (internal memory; [0020], lines 9-12; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (Fig. 1b).

As to claim 11, Miller teaches a power management unit in communication with the USB controller circuitry.

Note: Miller anticipates compatibility with the USB specification, and thereby the memory card inherently has a power management unit for distribution of the 5 Volts drawn from a standard USB connection.

As to claim 12, Miller teaches a host interface module in communication with the I/O port ([0044]; lines 3-6).

As to claim 13, Miller teaches circuitry configured to control read and write operations to the memory ([0044], lines 1-4).

As to claim 14, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 15, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

Claim Rejections - 35 USC § 103

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

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9, 10, and 22-28 are rejected under 35 USC 103(a) as being obvious over Miller in view of Hsiung et al. (PGPub # 2005/0063540), hereinafter referred to as Hsiung.

In regards to claims 9 and 10, as discussed above, Miller teaches all the limitations of claim 8.

As to claim 9, Miller does not appear to explicitly disclose decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Hsiung discloses decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decryption processor of Hsiung so that the host receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 10, Miller does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Hsiung discloses decompression circuitry configured to decompress compressed data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decompression processor of Hsiung so that the receiver of the memory card is not required to understand the compression encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data compression has become a standard process in data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim

Referring to claim 22, Miller discloses a method comprising: with a portable handheld memory card (fig. 1b) comprising: a Universal Serial Bus (USB) port (Fig. 1b,

item 13); USB controller circuitry in communication with the USB port ([0044]; lines 3-6); an input/output (I/O) port (Fig. 1b, SD port); a memory in communication with the USB port and the I/O port (internal memory; [0020], lines 9-12; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (Fig. 1b); reading data from the memory (internal memory; [0020], lines 9-12); transmitting the data on the I/O port (Fig. 1b, SD port); converting the data to first converted data for transmission on the USB port ([0044], lines 4-6); and transmitting the first converted data on the USB port ([0044]).

Miller does not appear to explicitly disclose the data is compressed; decompressing the compressed data to decompressed data; transmitting the decompressed data.

However, Hsiung discloses the data is compressed; decompressing the compressed data to decompressed data; transmitting the decompressed data ([0002], lines 1-7).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decompression processor of Hsiung so that the

receiver of the memory card is not required to understand the compression encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data compression has become a standard process in data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 23, Miller does not appear to explicitly disclose reading encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port.

However, Hsiung discloses encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port. ([0002], lines 1-7).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decryption processor of Hsiung so that the host

receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 24, Miller teaches converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

Note: The Voltage Supply pin (Vdd) of a standard USB connection requires a 4.75V~5.25V supply, while the Voltage Supply pin (Vdd) of a Standard SD card operating in SD Mode requires a 2.7V~3.6V supply; therefore it is inherent that in converting between USB and SD signals, the voltage level must also be converted.

As to claim 25, Miller teaches converting the decompressed data to second converted data for transmission on the I/O port; and transmitting the second converted data on the I/O port ([0044], lines 1-12).

As to claim 26, Miller teaches controlling reading and writing to the memory ([0044], lines 1-4).

As to claim 27, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 28, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

Claim 29, 33, and 34 are rejected under 35 USC 103(a) as being obvious over Miller in view of Kim et al. (PGPub # 2008/0071940), hereinafter referred to as Kim.

Referring to claim 29, Miller discloses a method comprising: with a portable handheld memory card (fig. 1b) comprising: a Universal Serial Bus (USB) port (Fig. 1b, item 13); USB controller circuitry in communication with the USB port ([0044]; lines 3-6); an input/output (I/O) port (Fig. 1b, SD port); a memory in communication with the USB port and the I/O port (internal memory; [0020], lines 9-12); and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (Fig. 1b); reading data from the memory (internal memory; [0020], lines 9-12).

Miller does not appear to explicitly disclose determining whether the data is to be transmitted via the USB port or I/O port; and transmitting the data to the host device via the determined port.

However, Kim discloses determining whether the data is to be transmitted (host interface detector, to identify a protocol of the host; [0020]) via the USB port (if using the USB protocol, IC card can use contact pads C4 and C8; Fig. 2, [0040]) or I/O port (if using the MMC protocol, IC cards can use contact pads C4, C6 and C8; Fig. 1; [0040]); and transmitting the data to the host device via the determined port (control the interface unit to enable one of the plurality of interface protocols to be used to communicate with the host; [0020]).

Miller and Kim are analogous art because they are from the same field of endeavor, memory card interfaces.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Kim before him or her, to modify the memory card of Miller to include the host interface detector of Kim because the detector would allow the memory card to select the communication protocol based on the host capabilities.

The suggestion/motivation for doing so would be to enable communication with various hosts by enabling one of a plurality of interface protocols (see Kim, [0020]), in order to overcome protocol communication limitations (see Kim [0005])

Therefore, it would have been obvious to combine Miller and Kim to obtain the invention as specified in the instant claim.

As to claim 33, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 34, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

Claims 30-32 and 35 are rejected under 35 USC 103(a) as being obvious over Miller in view of Kim as applied to claims 29, 33, and 34 above in view of Hsiung.

As to claim 30, Miller in view of Kim does not appear to explicitly disclose wherein the data is encrypted data, and wherein the method further compromises: decrypting the encrypted data to decrypted data.

However, Hsiung discloses wherein the data is encrypted data (memory stores a digital representation of video and sound in compressed, encrypted form; [0002]), and wherein the method further compromises: decrypting the encrypted data to decrypted data (reads the digital representation, decompresses and decrypts it [0002]).

Miller in view of Kim and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller in view of Kim and Hsiung before him or her, to modify the memory card of Miller in view of Kim to include the decryption processor of

Hsiung so that the host receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller in view of Kim and Hsiung to obtain the invention as specified in the instant claim.

As to claim 31, Miller in view of Kim discloses converting the data to first converted data for transmission (see Miller; [0044], lines 1-12)

Miller in view of Kim does not appear to explicitly disclose compressed data.

However, Hsiung discloses compressed data (memory stores a digital representation of video and sound in compressed, encrypted form; [0002])

Motivation to combine is maintained as in claim 30.

As to claim 32, Miller in view of Kim discloses converting the data to second converted data for transmission ([0044], lines 1-12).

Miller in view of Kim does not appear to explicitly disclose decompressed data.

However, Hsiung discloses decompressed data (reads the digital representation, decompresses and decrypts it [0002]).

Motivation to combine is maintained as in claim 30.

As to claim 35, Miller in view of Kim does not appear explicitly disclose wherein the data is compressed data and wherein the method further comprises: decompressing the compressed data to decompressed data.

However, Hsiung discloses wherein the data is compressed data (memory stores a digital representation of video and sound in compressed, encrypted form; [0002]) and wherein the method further comprises: decompressing the compressed data to decompressed data (reads the digital representation, decompresses and decrypts it [0002]).

Motivation to combine is maintained as in claim 30.

Response to Arguments

Applicant's arguments filed 9/28/2009 have been fully considered but they are not persuasive.

In the Applicant's Remarks section 35 USC 102(b) Rejections, with respect to claim 8 the Applicant submits:

> "Independent Claim 8 recites a portable handheld memory card having a Universal Serial Bus (USB) port and an input/output (I/O) port positioned to allow a *same card-insertion direction* irrespective of whether a host device comprises a mating USB port or a mating I/O port. In the Office Action, it was asserted that Figure Ib in Miller et al. shows a USB port and an I/O port positioned to allow a same card-insertion direction. Applicants respectfully disagree, as Miller et al. shows a USB port and an I/O port

> positioned for *opposite* card-insertion directions -not a *same card-insertion direction,* as recited in independent Claim 8…
>
> Miller et al. discloses that *"these positions are shown to be one hundred eight degrees apart"* (paragraph [0038], emphasis added). In other words, the main body 11 and extension 13 (i.e., the SD electrical contacts 15-23 and USB electrical contacts 37-40) are positioned for *opposite* card-insertion directions - not a *same card-insertion direction,* as recited in independent Claim 8. Accordingly, Applicants respectfully submit that the rejections of independent Claim 8 and its dependent claims should be withdrawn.
>
> "

The Examiner respectfully disagrees, while the ports of Miller may be shown on opposite ends of the housing, the ports are both male (plug) mating ends as apposed to female (receptacle) mating end. As they are both male ends, they are both inserted ***into*** the host port, and therefore have the same card-insertion direction.

The Applicant's claim language is vague and unclear, and does not clearly support the Applicant's argument against the prior art in regards to the ports being located on opposite ends. The Applicant is advised in making amendments, that should the claim language clearly depict a memory card in which the ports are located on the same end of the housing, the Applicant should also give consideration to the functional difference between the Applicant's invention and prior art. Without clearly claiming how the positioning of the ports renders the Applicant's invention as functionally different from the prior art, one of ordinary skill in the art may argue functional equivalence in which the port location is merely an obvious matter of design choice.

The above discussion applies to amended independent claims 22 and 29 as well as all dependent claims; furthermore the amendments to independent claim 29 necessitated the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. OBERLY whose telephone number is (571)272-6991. The examiner can normally be reached on Monday - Friday 7:30 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. 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.

/E. T. O./
Examiner, Art Unit 2184

/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184

Notice of References Cited	Application/Control No. 11/986,389	Applicant(s)/Patent Under Reexamination KANG, MYEONG JOON	
	Examiner ERIC T. OBERLY	Art Unit 2184	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2005/0063540 A1	03-2005	Hsiung, Ping Kang	380/217
*	B	US-2006/0084287 A1	04-2006	Miller et al.	439/064
*	C	US-2008/0071940 A1	03-2008	Kim et al.	710/019
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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.

Petitioner Micron Ex-1004, 0228

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009	11/24/2009							
	1	✓	-							
	2	✓	-							
	3	✓	-							
	4	✓	-							
	5	✓	-							
	6	✓	-							
	7	✓	-							
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	34	✓	✓							
	35		✓							

Petitioner Micron Ex-1004, 0229

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	6/25/2009	Eric Oberly
EAST 710/74 String Search	6/25/2009	Eric Oberly
IDS Search	6/25/2009	Eric Oberly
Google Scholar Search: Memory Card USB port	6/26/2009	Eric Oberly
Google Scholar Search: multiple interface protocol memory card	11/23/2009	Eric Oberly
Updated EAST Search	11/24/2009	Eric Oberly

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

Petitioner Micron Ex-1004, 0230

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	785	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/11/24 12:33
L2	21	(710/74.ccls.)(USB)(SD) (Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:33
L3	26925	(memory near card) (multiple)(port)(interface) (determine)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:34
L4	19438	(memory near card) (multiple)(port)(interface) (determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:35
L5	800	(memory near card) (multiple near (port or interface))(determine) (USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:35
L7	85	(memory near card) (multiple near (port or interface))(detector) (determine)(USB)	US-PGPUB; USPAT	AND	ON	2009/11/24 12:36
S1	2	kang-myeong.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:50
S2	1	11/986389.app.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:51
S4	7	kang-myeong-joon.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:52
S5	745	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/06/25 17:42
S7	20	(710/74.ccls.)(USB)(SD) (Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/06/25 17:43
S8	13	("20020147882" | "6216230" | "6654841" | "6763399" | "6772233" | "7011247" | "7039759" | "7039780").PN. OR ("7296098").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 18:32
S10	19	("6808424" | "6813164" | "6890188" | "6908038" | "6944028").PN. OR ("7104809").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:34

Petitioner Micron Ex-1004, 0231

S12	34	("20030095386" | "20030100203" | "20040033727" | "20040087194" | "20050230483" | "20050230484" | "20060084287" | "20060208066" | "20060273154" | "20060278723" | "20070145135" | "5818030" | "6116927" | "6375479" | "6381143" | "6385677" | "6427837" | "6439900" | "6561421" | "6567273" | "6676419" | "6676420" | "6763410" | "6792487" | "6824066" | "6854984" | "6883718" | "6890188" | "6908038" | "6993618" | "7004794" | "7009847" | "7025275").PN. OR ("7344072").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:37
S15	2	10/826796.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 21:04
S18	27	("4380699" | "4581716" | "4649418" | "5184209" | "5244840" | "5272374" | "5299046" | "5450366" | "5455785" | "5736782" | "5861662" | "5877547" | "6262915").PN. OR ("6501163").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 10:37
S22	10	("5036429" | "5091856" | "5180906").PN. OR ("5396617").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:10
S24	19	("5613092" | "5651116" | "5819050" | "5835864" | "5867795" | "5875415" | "5938750" | "5954808" | "6014748" | "6032135").PN. OR ("6192436").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:21
S28	2	("6067199" | "6654851").PN. OR ("7433994").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:52
S31	1	10/425899.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 14:03

Petitioner Micron Ex-1004, 0232

S33	14	(US-20050216624-$ or US-20020049887-$ or US-20060084287-$ or US-20020186842-$ or US-20040083378-$).did. or (US-7162549-$ or US-7296098-$ or US-7011247-$ or US-6216230-$ or US-7104809-$ or US-7344072-$ or US-7491076-$ or US-6669487-$ or US-7433994-$).did.	US-PGPUB; USPAT	OR	ON	2009/06/26 14:48
S34	15	(("7104809") or ("7344072") or ("20060084287") or ("6748485") or ("6501163") or ("6669487") or ("6820148") or ("5396617") or ("6192436") or ("5996033") or ("7090124") or ("7433994") or ("20040083378") or ("20020186842") or ("20050063540")).PN.	US-PGPUB; USPAT	OR	OFF	2009/06/27 16:04
S35	1	"20040182938".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:41
S36	1	"7237049".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:49
S38	1	"20050086408".pn.	US-PGPUB; USPAT	OR	ON	2009/06/27 16:51
S39	1	"20080071940".pn.	US-PGPUB; USPAT	OR	ON	2009/11/23 17:12
S40	2	(("7062585") or ("7152801")).PN.	US-PGPUB; USPAT	OR	OFF	2009/11/23 17:24
S41	82	("20010009505" | "20030100203" | "20030212848" | "20030233507" | "20040033726" | "20040033727" | "20040039854" | "20040089717" | "20050037647" | "4555619" | "5155663" | "5457601" | "5486687" | "5752857" | "5815426" | "5887145" | "5969333" | "5984708" | "6040622" |	US-PGPUB; USPAT; USOCR	OR	ON	2009/11/23 17:41

Petitioner Micron Ex-1004, 0233

		"6069795" | "6097605" | "6121681" | "6137710" | "6151652" | "6181564" | "6243686" | "6256692" | "6266724" | "6279114" | "6295206" | "6325291" | "6330151" | "6341728" | "6353870" | "6381143" | "6385677" | "6422469" | "6435409" | "6438638" | "6439464" | "6483038" | "6518927" | "6524137" | "6561421" | "6567273" | "6580615" | "6590615" | "6612498" | "6617673" | "6623304" | "6632097" | "6646885" | "6669487" | "6676420" | "6733340" | "6738259" | "6763410" | "6820148" | "6890188" | "6901457" | "6908038" | "D444473" | "D445111" | "D446525").PN. OR ("7152801").URPN.				

11/24/2009 12:37:10 PM
C:\Documents and Settings\eoberly\My Documents\EAST\Workspaces\11986389.wsp

Petitioner Micron Ex-1004, 0234

Our Case No. 10519-226
(SDA-1240-US)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:			
	Kang		
		Examiner:	Oberly
Serial No.:	11/986,389		
		Group Art Unit:	2184
Filed:	November 20, 2007		
For:	Portable Handheld Memory Card and Methods for Use Therewith		

AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Please enter the following amendment and remarks in response to the Office Action mailed July 1, 2009.

Petitioner Micron Ex-1004, 0235

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

Claims 1–7 (Cancelled)

8. (Original) A portable handheld memory card comprising:

a Universal Serial Bus (USB) port;

USB controller circuitry in communication with the USB port;

an input/output (I/O) port;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.

9. (Original) The portable handheld memory card of Claim 8 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

10. (Original) The portable handheld memory card of Claim 8 further comprising:

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decompression circuitry configured to decompress compressed data stored in the memory.

11. (Original) The portable handheld memory card of Claim 8 further comprising:

a power management unit in communication with the USB controller circuitry.

12. (Original) The portable handheld memory card of Claim 8 further comprising:

a host interface module in communication with the I/O port.

13. (Original) The portable handheld memory card of Claim 8 further comprising:

circuitry configured to control read and write operations to the memory.

14. (Original) The portable handheld memory card of Claim 8, wherein the I/O port comprises a Secure Digital port.

15. (Original) The portable handheld memory card of Claim 8, wherein the memory comprises Flash memory.

Claims 16-21 (Cancelled)

22. (Currently Amended) A method comprising:

with a portable handheld memory card comprising a Universal Serial Bus (USB) port; USB controller circuitry in communication with the USB port; an input/output (I/O) port; a memory in communication with the USB port and the I/O port; and a housing storing the

Petitioner Micron Ex-1004, 0237

memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port:

reading compressed data from the ~~a~~ memory ~~of the portable handheld memory card~~;

decompressing the compressed data to decompressed data;

transmitting the decompressed data on ~~an input/output (I/O)~~ the I/O port ~~of the portable handheld memory card~~;

converting the compressed data to first converted data for transmission on ~~a Universal Serial Bus (USB)~~ the USB port ~~of the portable handheld memory card~~; and

transmitting the first converted data on the USB port.

23. (Original) The method of Claim 22 further comprising:

reading encrypted data from the memory;

decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

24. (Original) The method of Claim 22 further comprising:

converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

25. (Original) The method of Claim 22 further comprising:

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converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

26. (Original) The method of Claim 22 further comprising:

controlling reading and writing to the memory.

27. (Original) The method of Claim 22, wherein the I/O port comprises a Secure Digital port.

28. (Original) The method of Claim 22, wherein the memory comprises Flash memory.

29. (Currently Amended) A method comprising:

with a portable handheld memory card comprising a Universal Serial Bus (USB) port; USB controller circuitry in communication with the USB port; an input/output (I/O) port; a memory in communication with the USB port and the I/O port; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port:

reading data from the memory;

determining whether the data is to be transmitted via the USB port or I/O port; and

transmitting the data to the host device via the determined port.

~~reading compressed data from a memory of the portable handheld memory card;~~

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~~decompressing the compressed data to decompressed data; and~~

~~transmitting the decompressed data on an input/output (I/O) port of the portable handheld memory card~~.

30. (Currently Amended) The method of Claim 29, wherein the data is encrypted data, and wherein the method further ~~comprising~~ comprises:

~~reading encrypted data from the memory;~~

decrypting the encrypted data to decrypted data~~; and~~

~~transmitting the decrypted data on the I/O port~~.

31. (Currently Amended) The method of Claim ~~29~~ 35 further comprising:

converting the compressed data to first converted data for transmission ~~on a Universal Serial Bus (USB) port of the portable handheld memory card; and~~

~~transmitting the first converted data on the USB port~~.

32. (Currently Amended) The method of Claim ~~29~~ 35 further comprising:

converting the decompressed data to second converted data for transmission ~~on the I/O port; and~~

~~transmitting the second converted data on the I/O port~~.

33. (Original) The method of Claim 29, wherein the I/O port comprises a Secure Digital port.

34. (Original) The method of Claim 29, wherein the memory comprises Flash memory.

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35. (New) The method of Claim 29, wherein the data is compressed data, and wherein the method further comprises:

decompressing the compressed data to decompressed data.

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REMARKS

I. 35 U.S.C. § 102(b) Rejections

Independent Claim 8 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2006/0084287 to Miller et al. Independent Claim 29 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Publication No. 2005/0063540 to Hsiung et al. Applicants respectfully request reconsideration and withdrawal of these rejections in light of the claim amendments presented above and in view of the following remarks.

Independent Claim 8 recites a portable handheld memory card having a Universal Serial Bus (USB) port and an input/output (I/O) port positioned to allow a ***same card-insertion direction*** irrespective of whether a host device comprises a mating USB port or a mating I/O port. In the Office Action, it was asserted that Figure 1b in Miller et al. shows a USB port and an I/O port positioned to allow a same card-insertion direction. Applicants respectfully disagree, as Miller et al. shows a USB port and an I/O port positioned for ***opposite*** card-insertion directions – not a ***same card-insertion direction***, as recited in independent Claim 8.

In Miller et al., the memory card includes a main body portion 11 and an extension 13. As shown in Figure 1b, the main body portion 11 includes electrical contacts 15-23 arranged according to the SD specification (paragraph [0037]). The SD electrical contacts 15-23 are arranged along one end of the main body portion 11 (paragraph [0036]). At the opposite end of the memory card, the extension 13 includes electrical contacts 37-40 arranged according to the USB specification (paragraph [0037]). Figure 1b shows two insertion positions for the memory card 11. The first position is when the main body 11 (i.e., the SD electrical contacts 15-23) is inserted into a matting receptacle, and the second position is when the extension (i.e., USB electrical contacts 37-40) is inserted into a matting receptacle (paragraph [0038]). Miller et al.

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discloses that "***[t]hese positions are shown to be one hundred eighty degrees apart***" (paragraph [0038], emphasis added). In other words, the main body 11 and extension 13 (i.e., the SD electrical contacts 15-23 and USB electrical contacts 37-40) are positioned for ***opposite*** card-insertion directions – not a ***same card-insertion direction***, as recited in independent Claim 8. Accordingly, Applicants respectfully submit that the rejections of independent Claim 8 and its dependent claims should be withdrawn.

With respect to independent Claim 29, in this Amendment, Applicants have amended independent Claim 29 to recite the "same card-insertion direction" feature discussed above in conjunction with independent Claim 1. For at least the reasons stated above with respect to independent Claim 1, Applicants respectfully submit that the rejections of independent Claim 29 and its dependent claims should be withdrawn.

II. 35 U.S.C. § 103(a) Rejections

Independent Claims 1, 16, and 22 were rejected under 35 U.S.C. 103(a) as being obvious over Miller et al. in view of Hsiung et al. To expedite the prosecution of this application, Applicants have cancelled independent Claims 1 and 16 and their dependent claims without prejudice. Also, in this Amendment, Applicants have amended independent Claim 22 to recite the "same card-insertion direction" feature discussed above in conjunction with independent Claim 1. For at least the reasons stated above with respect to independent Claim 1, Applicants respectfully submit that the rejections of independent Claim 22 and its dependent claims should be withdrawn.

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III. Conclusion

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. Reconsideration is respectfully requested. It should be noted that while the above remarks have focused only on certain elements of the independent claims, other elements of the independent claims (and the dependent claims) provide additional grounds of patentability. Applicants reserve the right to present arguments concerning these additional grounds at a later time, if necessary.

If there are any questions concerning this Amendment, the Examiner is invited to contact the undersigned attorney at (312) 321-4719.

Dated: September 28, 2009

Respectfully submitted,

Joseph F. Hetz
Reg. No. 41,070
Attorney for Applicants

BRINKS HOFER
GILSON & LIONE
P.O. Box 10395
Chicago, Illinois 60610
(312) 321-4719

Petitioner Micron Ex-1004, 0244

Electronic Acknowledgement Receipt

EFS ID:	6157065
Application Number:	11986389
International Application Number:	
Confirmation Number:	2143
Title of Invention:	Portable handheld memory card and methods for use therewith
First Named Inventor/Applicant Name:	Myeong Joon Kang
Customer Number:	67813
Filer:	Joseph F. Hetz/Jesus Rodriguez
Filer Authorized By:	Joseph F. Hetz
Attorney Docket Number:	10519-226
Receipt Date:	28-SEP-2009
Filing Date:	20-NOV-2007
Time Stamp:	15:46:15
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		11986389Amendment.pdf	312946 2def86e2decf79fb255fe71b969396cb913a9e94	yes	11

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Miscellaneous Incoming Letter	1	1
	Amendment/Req. Reconsideration-After Non-Final Reject	2	2
	Claims	3	8
	Applicant Arguments/Remarks Made in an Amendment	9	11
Warnings:			
Information:			
	Total Files Size (in bytes):	312946	

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.

CERTIFICATE OF EFS FILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being electronically transmitted to the United States Patent and Trademark Office, Commissioner for Patents, via the EFS pursuant to 37 CFR §1.8 on the below date.

Date: September 28, 2009 Name: Joseph F. Hetz, Reg. No. 41,070 Signature: _____

BRINKS HOFER GILSON &LIONE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Appln. of:	Kang		
Appln. No.:	11/986,389	Examiner:	Oberly
Filed:	November 20, 2007	Art Unit:	2184
For:	Portable Handheld Memory Card and Methods for Use Therewith	Conf. No.:	2143

Attorney Docket No.: 10519-226 (SDA-1240-US)

TRANSMITTAL

Mail Stop Amendment
Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Attached is/are:

☒ Amendment (10 pages).

Fee calculation:

☒ No additional fee is required.

☐ Small Entity.

☐ An extension fee in an amount of $_____ for a ____- month extension of time under 37 CFR § 1.136(a).

☐ A petition or processing fee in an amount of $_____ under 37 CFR § 1.17(___) .

☐ An additional filing fee has been calculated as shown below:

						Small Entity			Not a Small Entity	
	Claims Remaining After Amendment		Highest No. Previously Paid For	Present Extra		Rate	Add'l Fee	OR	Rate	Add'l Fee
Total		Minus				x $26=			x $52=	
Indep.		Minus				x 110=			x $220=	
First Presentation of Multiple Dep. Claim						+$195=			+ $390=	
						Total	$		Total	$

Fee payment:

☐ Please charge Deposit Account No. 23-1925 in the amount of $_____ for _____.

☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).

☒ The Director is hereby authorized to charge payment of any additional filing fees required under 37 CFR § 1.16 and any patent application processing fees under 37 CFR § 1.17 associated with this paper (including any extension fee required to ensure that this paper is timely filed), or to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

September 28, 2009
Date

Joseph F. Hetz (Reg. No. 41,070)

PTO/SB/06 (07-06)
Approved for use through 1/31/2007. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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.

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	☐ To be Mailed
11/986,389	11/20/2007	

APPLICATION AS FILED – PART I

	(Column 1)	(Column 2)	SMALL ENTITY ☐		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE ($)	FEE ($)		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =		OR	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =			X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 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			TOTAL	

APPLICATION AS AMENDED – PART II

		(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
AMENDMENT	09/28/2009	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 22	Minus	** 34	= 0	X $ =		OR	X $52=	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***5	= 0	X $ =		OR	X $220=	0
	☐ 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	0

		(Column 1)		(Column 2)	(Column 3)					
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
	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 number found in the appropriate box in column 1.

Legal Instrument Examiner:
/TONYA MCBRIDE/

This collection of information is required by 37 CFR 1.16. 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 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.**

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

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/986,389	11/20/2007	Myeong Joon Kang	10519-226	2143

67813 7590 07/01/2009

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

EXAMINER	
OBERLY, ERIC T	
ART UNIT	PAPER NUMBER
2184	

MAIL DATE	DELIVERY MODE
07/01/2009	PAPER

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.

Petitioner Micron Ex-1004, 0249

Office Action Summary	Application No.	Applicant(s)	
	11/986,389	KANG, MYEONG JOON	
	Examiner	Art Unit	
	ERIC T. OBERLY	2184	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 *20 November 2007*.

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

3)☐ 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

4)☒ Claim(s) *1-34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-34* is/are rejected.

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

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

Application Papers

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

10)☒ The drawing(s) filed on *20 November 2007* 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).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

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).

a)☐ All b)☐ Some * c)☐ None of:

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) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *11/20/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Petitioner Micron Ex-1004, 0250

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. PGPub # 2006/0084287.

Referring to claim 8, Miller teaches portable handheld memory card (fig. 1b) comprising: a Universal Serial Bus (USB) port (Fig. 1b, item 13); USB controller circuitry in communication with the USB port ([0044]; lines 3-6); an input/output (I/O) port (Fig. 1b, SD port); a memory in communication with the USB port and the I/O port (internal memory; [0020], lines 9-12; and a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port (Fig. 1b).

As to claim 11, Miller teaches a power management unit in communication with the USB controller circuitry.

Note: Miller anticipates compatibility with the USB specification, and thereby the memory card inherently has a power management unit for distribution of the 5 Volts drawn from a standard USB connection.

As to claim 12, Miller teaches a host interface module in communication with the I/O port ([0044]; lines 3-6).

As to claim 13, Miller teaches circuitry configured to control read and write operations to the memory ([0044], lines 1-4).

As to claim 14, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 15, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

Claims 29, 30, 33, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsiung et al. PGPub # 2005/0063540.

Referring to claim 29, Hsiung teaches a method comprising: with a portable handheld memory card (Digital memory cartridge; Fig. 6, item 20'): reading compressed data from a memory of the portable handheld memory card; decompressing the compressed data to decompressed data; and transmitting the decompressed data ([0002], lines 1-7) on an input/output (I/O) port of the portable handheld memory card (form factor of the DMC; [0037], lines 1-2).

As to claim 30, Hsiung teaches reading encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port ([0002], lines 1-7).

As to claim 33, Hsiung teaches the I/O port comprises a Secure Digital port ([0037], lines 3-6).

As to claim 34, Hsiung teaches the memory comprises Flash memory ([0032], lines 1-2).

Claim Rejections - 35 USC § 103

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

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 9-10, 16-28, 31-32 are rejected under 35 USC 103(a) as being obvious over Miller et al. PGPub # 2006/0084287 in view of Hsiung et al. PGPub # 2005/0063540.

Referring to claim 1, Miller discloses a portable handheld memory card (fig. 1b) comprising: a Universal Serial Bus (USB) port (Fig. 1b, item 13); USB controller circuitry in communication with the USB port ([0044]; lines 3-6); an input/output (I/O) port (Fig. 1b, SD port); a memory in communication with the USB port and the I/O port (internal

memory; [0020], lines 9-12); and decompression circuitry configured to decompress compressed data stored in the memory.

Miller does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Hsiung discloses decompression circuitry configured to decompress compressed data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decompression processor of Hsiung so that the receiver of the memory card is not required to understand the compression encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data compression has become a standard process in data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 2, Miller does not appear to explicitly disclose decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Hsiung discloses decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decryption processor of Hsiung so that the host receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 3, Miller teaches a power management unit in communication with the USB controller circuitry.

Note: Miller anticipates compatibility with the USB specification, and thereby the memory card inherently has a power management unit for distribution of the 5 Volts drawn from a standard USB connection.

As to claim 4, Miller teaches a host interface module in communication with the I/O port ([0044]; lines 3-6).

As to claim 5, Miller teaches circuitry configured to control read and write operations to the memory ([0044], lines 1-4).

As to claim 6, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 7, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

In regards to claims 9 and 10, as discussed above, Miller teaches all the limitations of claim 8.

As to claim 9, Miller does not appear to explicitly disclose decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Hsiung discloses decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decryption processor of Hsiung so that the host receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 10, Miller does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Hsiung discloses decompression circuitry configured to decompress compressed data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decompression processor of Hsiung so that the receiver of the memory card is not required to understand the compression encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data compression has become a standard process in data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim

Referring to claim 16, Miller teaches a portable handheld memory card (fig. 1b) comprising: an input/output (I/O) port (Fig. 1b, SD port); a memory in communication with the I/O port (internal memory; [0020], lines 9-12); circuitry configured to control

read and write operations to the memory ([0044], lines 1-4); and decompression circuitry configured to decompress compressed data stored in the memory.

Miller does not appear to explicitly disclose decompression circuitry configured to decompress compressed data stored in the memory.

However, Hsiung discloses decompression circuitry configured to decompress compressed data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decompression processor of Hsiung so that the receiver of the memory card is not required to understand the compression encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data compression has become a standard process in data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 17, Miller does not appear to explicitly disclose decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

However, Hsiung discloses decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory ([0037], lines 10-12).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decryption processor of Hsiung so that the host receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 18, Miller teaches a Universal Serial Bus (USB) port (Fig. 1b, item 13); and USB controller circuitry in communication with the USB port ([0044]; lines 3-6).

As to claim 19, Miller teaches a host interface module in communication with the I/O port ([0044]; lines 3-6).

As to claim 20, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 21, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

Referring to claim 22, Miller teaches a method comprising: with a portable handheld memory card (fig. 1b): reading compressed data from a memory of the portable handheld memory card (internal memory; [0020], lines 9-12); decompressing the compressed data to decompressed data; transmitting the decompressed data on an input/output (I/O) port of the portable handheld memory card (Fig. 1b, SD port); converting the compressed data to first converted data for transmission on a Universal Serial Bus (USB) port of the portable handheld memory card; and transmitting the first converted data on the USB port ([0044], lines 4-6).

Miller does not appear to explicitly disclose the data is compressed; decompressing the compressed data to decompressed data; transmitting the decompressed data.

However, Hsiung discloses the data is compressed; decompressing the compressed data to decompressed data; transmitting the decompressed data ([0002], lines 1-7).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decompression processor of Hsiung so that the receiver of the memory card is not required to understand the compression encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data compression has become a standard process in data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 23, Miller does not appear to explicitly disclose reading encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port.

However, Hsiung discloses encrypted data from the memory; decrypting the encrypted data to decrypted data; and transmitting the decrypted data on the I/O port. ([0002], lines 1-7).

Miller and Hsiung are analogous art because they are from the same field of endeavor, memory card storage.

At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Miller and Hsiung before him or her, to modify the memory card of Miller to include the decryption processor of Hsiung so that the host receiver of the memory card is not required to understand the encryption encoding scheme.

Miller suggests that the standards that are implemented are preferably those that will allow the system to be used directly with a wide variety of host devices ([0020], lines 12-14), and as data encryption has become a standard process in Secure data storage one of ordinary skill would be motivate incorporate such circuitry as disclosed by Hsiung in order to further the memory cards security and compatibility with host devices.

Therefore, it would have been obvious to combine Miller and Hsiung to obtain the invention as specified in the instant claim.

As to claim 24, Miller teaches converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

Note: The Voltage Supply pin (Vdd) of a standard USB connection requires a 4.75V~5.25V supply, while the Voltage Supply pin (Vdd) of a Standard SD card operating in SD Mode requires a 2.7V~3.6V supply; therefore it is inherent that in converting between USB and SD signals, the voltage level must also be converted.

As to claim 25, Miller teaches converting the decompressed data to second converted data for transmission on the I/O port; and transmitting the second converted data on the I/O port ([0044], lines 1-12).

As to claim 26, Miller teaches controlling reading and writing to the memory ([0044], lines 1-4).

As to claim 27, Miller teaches the I/O port comprises a Secure Digital port ([0037], lines 8-11).

As to claim 28, Miller teaches the memory comprises Flash memory ([0044], lines 1-2).

As to claim 31, Miller teaches converting the compressed data to first converted data for transmission on a Universal Serial Bus (USB) port of the portable handheld

memory card; and transmitting the first converted data on the USB port ([0044], lines 1-12).

As to claim 32, Miller teaches converting the decompressed data to second converted data for transmission on the I/O port; and transmitting the second converted data on the I/O port ([0044], lines 1-12).

Conclusion

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

US Patent Application Publication # 2004/0083378 of LeRose et al. is pertinent in the field of encryption/decryption and compression/decompression involving a memory device.

US Patent Application Publication # 2002/0186842 of Sabet-Sharghi et al. is pertinent in the field of encryption/decryption within memory cards.

US Patent # 7491076 of Gu et al. is pertinent in the field of SD cards adapted to USB interface.

US Patent # 7433994 of Petersen et al is pertinent in the field of compression/decompression within a memory device.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC T. OBERLY whose telephone number is (571)272-6991. The examiner can normally be reached on Monday - Friday 7:30 - 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Henry Tsai can be reached on (571) 272-4176. 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.

/E. T. O./
Examiner, Art Unit 2184

/Henry W.H. Tsai/
Supervisory Patent Examiner, Art Unit 2184

Notice of References Cited	Application/Control No. 11/986,389	Applicant(s)/Patent Under Reexamination KANG, MYEONG JOON	
	Examiner ERIC T. OBERLY	Art Unit 2184	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0186842 A1	12-2002	Sabet-Sharghi et al.	380/200
*	B	US-2004/0083378 A1	04-2004	LeRose, Jeffrey W.	713/193
*	C	US-2005/0063540 A1	03-2005	Hsiung, Ping Kang	380/217
*	D	US-2006/0084287 A1	04-2006	Miller et al.	439/064
*	E	US-7,433,994 B2	10-2008	Petersen et al.	711/103
*	F	US-7,491,076 B2	02-2009	Gu et al.	439/217
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	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.

Petitioner Micron Ex-1004, 0267

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

SEARCHED			
Class	Subclass	Date	Examiner

SEARCH NOTES		
Search Notes	Date	Examiner
Inventor Search	6/25/2009	Eric Oberly
EAST 710/74 String Search	6/25/2009	Eric Oberly
IDS Search	6/25/2009	Eric Oberly
Google Scholar Search: Memory Card USB port	6/26/2009	Eric Oberly

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	11986389	KANG, MYEONG JOON
	Examiner	Art Unit
	ERIC T OBERLY	2184

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

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

CLAIM		DATE								
Final	Original	06/27/2009								
	1	✓								
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	33	✓								
	34	✓								

Petitioner Micron Ex-1004, 0269

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	15	(("7104809") or ("7344072") or ("20060084287") or ("6748485") or ("6501163") or ("6669487") or ("6820148") or ("5396617") or ("6192436") or ("5996033") or ("7090124") or ("7433994") or ("20040083378") or ("20020186842") or ("20050063540")).PN.	US-PGPUB; USPAT	OR	OFF	2009/06/27 16:04
S1	2	kang-myeong.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:50
S2	1	11/986389.app.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:51
S4	7	kang-myeong-joon.in.	US-PGPUB; USPAT	OR	ON	2009/06/25 16:52
S5	745	710/74.ccls.	US-PGPUB; USPAT	OR	ON	2009/06/25 17:42
S7	20	(710/74.ccls.)(USB)(SD)(Flash)(Drive)	US-PGPUB; USPAT	AND	ON	2009/06/25 17:43
S8	13	("20020147882" | "6216230" | "6654841" | "6763399" | "6772233" | "7011247" | "7039759" | "7039780").PN. OR ("7296098").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 18:32
S10	19	("6808424" | "6813164" | "6890188" | "6908038" | "6944028").PN. OR ("7104809").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:34

Petitioner Micron Ex-1004, 0270

S12	34	("20030095386" | "20030100203" | "20040033727" | "20040087194" | "20050230483" | "20050230484" | "20060084287" | "20060208066" | "20060273154" | "20060278723" | "20070145135" | "5818030" | "6116927" | "6375479" | "6381143" | "6385677" | "6427837" | "6439900" | "6561421" | "6567273" | "6676419" | "6676420" | "6763410" | "6792487" | "6824066" | "6854984" | "6883718" | "6890188" | "6908038" | "6993618" | "7004794" | "7009847" | "7025275").PN. OR ("7344072").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 20:37
S15	2	10/826796.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/25 21:04
S18	27	("4380699" | "4581716" | "4649418" | "5184209" | "5244840" | "5272374" | "5299046" | "5450366" | "5455785" | "5736782" | "5861662" | "5877547" | "6262915").PN. OR ("6501163").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 10:37
S22	10	("5036429" | "5091856" | "5180906").PN. OR ("5396617").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:10
S24	19	("5613092" | "5651116" | "5819050" | "5835864" | "5867795" | "5875415" | "5938750" | "5954808" | "6014748" | "6032135").PN. OR ("6192436").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:21
S28	2	("6067199" | "6654851").PN. OR ("7433994").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 12:52

Petitioner Micron Ex-1004, 0271

S31	1	10/425899.app.	US-PGPUB; USPAT; USOCR	OR	ON	2009/06/26 14:03
S33	14	(US-20050216624-$ or US-20020049887-$ or US-20060084287-$ or US-20020186842-$ or US-20040083378-$).did. or (US-7162549-$ or US-7296098-$ or US-7011247-$ or US-6216230-$ or US-7104809-$ or US-7344072-$ or US-7491076-$ or US-6669487-$ or US-7433994-$).did.	US-PGPUB; USPAT	OR	ON	2009/06/26 14:48

6/27/2009 4:12:34 PM
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Petitioner Micron Ex-1004, 0272

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BIB DATA SHEET

CONFIRMATION NO. 2143

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
11/986,389	11/20/2007 RULE	710	2184	10519-226

APPLICANTS
Myeong Joon Kang, San Ramon, CA;

**** CONTINUING DATA ***************************

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ****
12/14/2007

Foreign Priority claimed ☐ Yes ☑ No 35 USC 119(a-d) conditions met ☐ Yes ☑ No Verified and Acknowledged /ERIC T OBERLY/ Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
		CA	6	34	5

ADDRESS

BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610
UNITED STATES

TITLE

Portable handheld memory card and methods for use therewith

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2150	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

Petitioner Micron Ex-1004, 0273

FORM PTO-1449	SERIAL NO. 11/986389 ~~To Be Determined~~	CASE NO. 10519-226
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	FILING DATE Herewith	GROUP ART UNIT ~~To Be Determined~~ 2184
(use several sheets if necessary)	APPLICANT(S): Myeong Joon Kang	

REFERENCE DESIGNATION U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	NAME	CLASS/ SUBCLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO

EXAMINER INITIAL		OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.
/E.O./	A1	SanDisk Ultra II SD Plus Cards, http://www.sandisk.com/Products/Catalog(1096)-SanDisk_Ultra_II_SD_Plus_Cards.aspx, 1 page, printed November 12, 2007.
/E.O./	A2	New Rolling Stones Album, A Bigger Bang, Will Be Sold on New GRUVI Music Cards From Sandisk, http://www.sandisk.com/Corporate/PressRoom/PressReleases/PressRelease.aspx?ID=1751, 2 pages, September 25, 2005.
/E.O./	A3	SanDisk Receives CES Innovation Design Award For Its gruvi Rolling Stones Music Card, http://www.sandisk.com/Corporate/PressRoom/PressReleases/PressRelease.aspx?ID=3287, 2 pages, January 31, 2006.
/E.O./	A4	SanDisk Sansa Express MP3 Players, http://www.sandisk.com/Products/Catalog(1226)-SanDisk_Sansa_Express_MP3_Players.aspx, 2 pages, printed November 12, 2007.
/E.O./	A5	SanDisk Cruzer Micro USB Flash Drive, http://www.sandisk.com/Products/Catalog(1168)-SanDisk_Cruzer_Micro_USB_Flash_Drive.aspx, 2 pages, printed November 12, 2007.

EXAMINER /Eric Oberly/	DATE CONSIDERED 06/27/2009

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PLUS Search Results for S/N 11986389, Searched Mon Jun 22 08:59:58 EDT 2009

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
11/986,389	11/20/2007	Myeong Joon Kang	10519-226

CONFIRMATION NO. 2143

67813
BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

PUBLICATION NOTICE

OC000000036093449

Title: Portable handheld memory card and methods for use therewith

Publication No.US-2009-0132739-A1
Publication Date:05/21/2009

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 Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, 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 http://pair.uspto.gov/. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

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

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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
11/986,389	11/20/2007	2182	2150	10519-226	34	5

CONFIRMATION NO. 2143

67813
BRINKS HOFER GILSON & LIONE/SanDisk
P.O. BOX 10395
CHICAGO, IL 60610

FILING RECEIPT

OC000000027298349

Date Mailed: 12/17/2007

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 write to the Office of Initial Patent Examination's Filing Receipt Corrections. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Applicant(s)

Myeong Joon Kang, San Ramon, CA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 12/14/2007

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 11/986,389**

Projected Publication Date: 05/21/2009

Non-Publication Request: No

Early Publication Request: No

Petitioner Micron Ex-1004, 0277

Title

Portable handheld memory card and methods for use therewith

Preliminary Class

710

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.

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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 (1-866-999-4158).

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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U.S. PTO
11/986389
11/20/2007

BRINKS HOFER GILSON &LIONE

In re Application of: Myeong Joon Kang

For: PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

Attorney Docket No: 10519-226

Express Mail mailing label number: EM 091193144 US

Date of Deposit: November 20, 2007

14230 U.S. PTO 112007

UTILITY PATENT APPLICATION TRANSMITTAL

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

1. TRANSMITTED HEREWITH: A new application under 37 CFR §1.53(b), including the following elements and other papers:

- ☐ Application Data Sheet (see 37 CFR §1.76)
- ☒ Title page
- ☒ Specification, including claims and Abstract (16 pages)
- ☒ Drawings (6 sheets/Figs. 1-6)
- ☐ Appendices:
- ☒ Declaration (2 pages; ☒ Executed ☐ Unexecuted)
- ☐ Combined Declaration and Power of Attorney (_____ pages; ☐ Executed ☐ Unexecuted)
- ☒ Assignment Recordation Cover Sheet, with fee and attached assignment
- ☒ Information Disclosure Statement, including Form PTO-1449 (2 sheets), and any required copies
- ☐ Power of Attorney (pages; ☐ by inventor ☐ by Assignee identified in Assignment)
- ☐ Nonpublication Request under 35 USC §122(b)(2)(B)(i)
- ☒ Other: Suggested Requirement for Restriction (2 pages)
- ☒ Return Postcard

2. SMALL ENTITY STATUS: ☐ Applicant is small entity (per 37 CFR §1.27).

3. FEE CALCULATION:

Claims as Filed	Col. 1	Col. 2		Small Entity			Not a Small Entity	
For	No. Filed	No. Extra		Rate	Fee	or	Rate	Fee
Basic Fee					$ 155	or		$ 310
Total Claims	34-20	14		x$25=	$	or	14 x$50=	$700
Independent Claims	5-3	2		x$105=	$	or	2 x$210=	$420
Multiple Dependent Claims Present				+$185=	$	or	+$370=	$
Utility Application Size Fee (for each additional 50 sheets that exceeds 100 sheets, including specification and drawings)				x$130=	$	or	X$260=	$
Search Fee				+$255=	$	or	+$510=	$510
Examination Fee				+$105=	$	or	+$210=	$210
*If the difference in col. 1 is less than zero, enter "0" in col. 2.				Total	$	or	Total	$2,150

4. FEE PAYMENT:

- ☒ Checks in the amount of $2,150 to cover the filing fees and $40 for assignment recordation are enclosed.
- ☐ Payment by credit card in the amount of $_____ (Form PTO-2038 is attached).
- ☐ Please charge Deposit Account No. 23-1925 in the amount of $_____.
- ☒ The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account No. 23-1925 (a copy of this Transmittal is enclosed for this purpose.):
  - ☒ Any additional filing fees required under 37 CFR §1.16.
  - ☒ Any patent application processing fees under 37 CFR §1.17.

5. CORRESPONDENCE ADDRESS: Please recognize the correspondence address for this application as the address associated with the following Customer Number:

Customer No.: 67813 - SanDisk/BHGL

6. PLEASE DIRECT all telephonic communications to: Joseph F. Hetz (tel: (312) 321-4200).

Respectfully submitted,

November 20, 2007
Date

Joseph F. Hetz (Reg. No. 41,070)

Express Mail Mailing Label No.: EM091193144US
Date of Deposit: November 20, 2007

Our Case No. 10519-226

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Myeong Joon Kang	)	
Serial No. Unassigned	)	Examiner: Unknown
Filing Date: Herewith	)	Group Art Unit No. Unassigned
For PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	)	

SUGGESTED REQUIREMENT FOR RESTRICTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir or Madam:

Applicant notes that the new patent application identified above and filed herewith contains groups of claims that are more efficiently examined in separate applications and, accordingly, provides this suggested requirement for restriction. Applicant suggests restricting Group I (claims 1-21) from Group II (claims 22-34). Group I is directed toward products and Group II is directed toward methods. Restricting the claims accordingly would permit the Examiner to focus his/her resources on a single group to provide a more thorough examination of the claims therein.

Applicant elects to proceed with Group I (claims 1-21), without traverse, if the Examiner accepts this suggestion.

If for any reason the Examiner believes that an interview would be helpful to resolve any issues concerning this suggested requirement for restriction, the Examiner is respectfully requested to contact the undersigned attorneys.

Respectfully submitted,



Joseph F. Hetz
Registration No. 41,070
Attorney for Applicant

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(312) 321-4200

Petitioner Micron Ex-1004, 0282

Attorney Docket No. 10519-226

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
APPLICATION FOR UNITED STATES LETTERS PATENT

INVENTOR: Myeong Joon Kang

TITLE: Portable Handheld Memory Card and Methods for Use Therewith

ATTORNEY: Joseph F. Hetz
BRINKS HOFER GILSON & LIONE
P.O. BOX 10395
CHICAGO, ILLINOIS 60610
(312) 321-4200

PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH

TECHNICAL FIELD

[0001] The invention relates to memory devices, and particularly, to portable handheld memory cards configured to transfer data over various interfaces.

BACKGROUND

[0002] Memory devices may be used to expand the memory capacity of electronic devices. Such electronic devices may include audio players, video players, digital cameras, video cameras, personal digital assistants, cellular phones, and other devices. A memory device, such as a memory card, may interface with the electronic device using a standardized format, such as Secure Digital, CompactFlash, Memory Stick, or other formats. The memory device may also include other types of interfaces, such as a Universal Serial Bus port, which may be used to connect the memory device to a computer to transfer data, for example. The memory device may include Flash memory, magnetic disks, or other types of non-volatile media to store data. The data may include audio, video, or other types of data, and the data may be uncompressed or compressed. The data may also be encrypted and protected with digital rights management (DRM), which may allow content providers to control the use and transfer of the data. DRM technologies include proprietary encryption techniques, subscription models, Microsoft PlaysForSure, Windows Media DRM, Janus DRM, and other DRM technologies.

[0003] Existing memory cards have drawbacks that may reduce their usefulness. Encrypted data protected with DRM that is stored on existing memory cards may require authentication such that the data can only be used with a specific electronic device. For example, a song protected with DRM may be transferred with a specific audio player to a Secure Digital (SD) memory card. The DRM may restrict playback of the song such that the song can only be listened to when the SD memory card is connected to that specific audio player. Also, accessing or transferring data between existing memory cards and computers may require the use of a card reader connected to a computer via a USB connection. The card reader may translate the data transfer protocol of the memory card interface to the data transfer protocol of the USB connection. Using such a card reader may be inconvenient and costly. Furthermore, accessing compressed data stored on existing memory cards may require that the connected electronic

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device include decompression capability. For example, playing back a song compressed in the MP3 format that is stored on an existing memory card may require an audio player with MP3 decompression circuitry. Such a player may be expensive and complex.

SUMMARY

[0004] The present invention is defined by the following claims, and nothing in this section should be taken as a limitation on those claims.

[0005] By way of introduction, the embodiments described below provide a portable handheld memory card with a Universal Serial Bus (USB) port, USB controller circuitry, an input/output (I/O) port, a memory, and decompression circuitry configured to decompress compressed data stored in the memory. In one embodiment, the memory card includes a housing storing the memory and exposing the USB port and the I/O port. The USB port and I/O port may be positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port. In another embodiment, the memory card includes decryption circuitry to decrypt encrypted data stored in the memory, a power management unit, a host interface module, and circuitry configured to control read and write operations to the memory. The I/O port may comprise a Secure Digital port, and the memory may comprise Flash memory.

[0006] Each of the embodiments described herein can be used alone or in combination with one another. The embodiments will now be described with reference to the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] Figure 1 is a block diagram of an embodiment of a memory card.

[0008] Figure 2 is a schematic of an exemplary pinout of an embodiment of a memory card.

[0009] Figure 3 is a block diagram of the memory card of Figure 1 interfaced with a card reader and a computer, via a Universal Serial Bus port.

[0010] Figure 4 is a block diagram of the memory card of Figure 1 interfaced with an audio player via a Secure Digital port.

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[0011] Figure 5 is a block diagram of the memory card of Figure 1 interfaced with an electronic device via a Universal Serial Bus port.

[0012] Figure 6 is a flowchart illustrating a method of an embodiment of the memory card.

DETAILED DESCRIPTION

[0013] The disclosure can be better understood with reference to the following drawings and description. The components in the figures are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the invention. Moreover, in the figures, like referenced numerals designate corresponding parts or elements throughout the different views.

[0014] By way of overview, the embodiments described herein are related to portable handheld memory cards with a Universal Serial Bus (USB) port, USB controller circuitry, an input/output (I/O) port, a memory, and decompression circuitry configured to decompress compressed data stored in the memory. The memory card may include a housing storing the memory and exposing the USB port and the I/O port. The USB port and I/O port may be positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port. The memory card may include decryption circuitry to decrypt encrypted data stored in the memory, a power management unit, a host interface module, and circuitry configured to control read and write operations to the memory. The I/O port may comprise a Secure Digital port, and the memory may comprise Flash memory.

[0015] Figure 1 is a block diagram of an embodiment of a memory card 100. The memory card 100 may include a USB port 102, a Secure Digital (SD) port 104, a USB controller circuit 106, a memory 108, a decryption circuit 110, a decompression circuit 112, a host interface circuit 114, a power management unit 116, and a read/write controller 118. More or fewer components may be included in the memory card 100. The memory card 100 may store and provide data that may be encrypted, unencrypted, compressed, and/or uncompressed. For example, the memory card 100 may store encrypted content protected with digital rights management (DRM). Examples of encrypted content include data protected using proprietary encryption techniques, subscription models, Microsoft PlaysForSure, Windows Media DRM, Janus DRM, and other protection techniques. The memory card 100 may communicate via the USB port 102 or the Secure Digital port 104 to transfer data between the memory card 100 and

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external devices. The encrypted content may be transferred between the memory card 100 and a computer directly via the USB port 102. In addition, the encrypted content may be played back from the memory card 100 independent of the device it is connected to, such that authorization for use of the encrypted content takes place in the memory card 100. The memory card 100 may also decompress compressed data with the decompression circuit 112 so that a connected device does not need to include potentially costly and complex decompression circuitry. Examples of compressed data include MP3 audio data, and other types of lossy and lossless compressed data.

[0016] The memory 108 in the memory card 100 may include Flash memory, magnetic disks, or other suitable types of non-volatile memory. The memory 108 may store and provide encrypted, unencrypted, compressed, uncompressed, and other types of data. Data flow to and from the memory 108 may be managed by the read/write controller 118. The read/write controller 118 may be in communication with the USB controller 106 and the host interface 114 to control and coordinate read and write operations between the USB port 102 and Secure Digital port 104, respectively, and the memory 108. The read/write controller 118 may also perform error correction, wear leveling, address decoding, and other memory-related functions.

[0017] Data may be transferred between the memory 108 and an external device directly via the USB port 102. The USB port 102 may include serial data lines D+ and D- and a bus voltage Vbus, as shown in Figure 1. The USB port 102 may be implemented with a standard USB connector, such as A-type, B-type, mini USB, and micro USB, and may include a USB connector such as on a Secure Digital Plus memory card. The USB port 102 may also be implemented using additional pins included on an existing memory card. The memory card housing may be configured such that the card may be inserted in the same direction irrespective of whether a host device includes a mating USB port or a mating Secure Digital port, as described below.

[0018] In the memory card 100, the data lines D+ and D- may be in communication with the USB controller 106, such that data transferred via the USB port 102 is translated to and from the USB protocol. Other components, such as a buffer, logic, or other circuitry may process the data between the USB port 102 and the memory 108. The USB controller 106 may allow the memory card 100 to be connected to a host USB device (not shown) such that data may be transferred via the USB port 102 and data lines D+ and D- using the USB protocol. A host USB device may include a computer, for example. The transferred data may be encrypted,

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unencrypted, compressed, and/or uncompressed data. If the data is encrypted, the data may be transferred such that use of the data is not restricted to any particular electronic device. In addition, the bus voltage Vbus may be in communication with the power management unit 116. The bus voltage Vbus may be approximately 5V, as specified in the USB standard, and may be converted by the power management unit 116 to a suitable voltage for use by components of the memory card 100.

[0019] The memory card 100 may also communicate with external devices using an input/output (I/O) port, such as the SD port 104. For example, the SD port 104 may transfer a pulse code modulated (PCM) signal containing music to an external audio player. The SD port 104 may include a voltage Vdd, a command line CMD, a clock line CLK, and a data bus DATA, all of which may be in communication with the host interface circuit 114. The host interface circuit 114 may translate data to and from the SD protocol to be transferred via the SD port 104, in particular, via the command line CMD, the clock line CLK, and the data bus DATA. The memory card 100 may operate in one of the transfer modes supported by the SD protocol: serial peripheral interface (SPI), one-bit SD mode, or four-bit SD mode. The voltage Vdd may be used by the host interface circuit 114 to translate the data to and from the SD protocol over the SD port 104. The voltage Vdd may also be in communication with the power management unit 116.

[0020] Data in the memory 108 that is accessed and transmitted over the SD port 104 may be encrypted, unencrypted, compressed, and/or uncompressed. If the data is uncompressed and unencrypted, the data may be read directly from the memory 108 to the host interface circuit 114 for output on the SD port 104. If the data is uncompressed and encrypted, the data may be read from the memory 108 to the decryption circuit 110. The decryption circuit 110 may then decrypt the data and transfer the data to the host interface circuit 114 for output on the SD port 104. If the data is compressed and unencrypted, the data may be read from the memory 108 to the decompression circuit 112. The decompression circuit 112 may decompress the data to a pulse code modulated (PCM) signal, which may then be transferred to the host interface circuit 114 to be transmitted over the SD port 104. Finally, if the data is compressed and encrypted, the data may be read from the memory 108 to the decryption circuit 110. The decryption circuit 110 may decrypt the data, and then transfer the decrypted compressed data to the decompression circuit 112. The decompression circuit 112 may decompress the decrypted compressed data to a

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PCM signal, and transfer the PCM signal to the host interface circuit 114 to be transmitted over the SD port 104.

[0021] Figure 2 is a schematic of an exemplary pinout of an embodiment of a memory card 200. The memory card 200 may have a physical form factor and housing that complies with the Secure Digital standard, as shown in Figure 2 with a view of the front 202 and the rear 204 of the memory card 200. The memory card 200 may include any memory capacity and may store music or any other type of data. The rear 204 of the memory card 200 may include pins as specified by the Secure Digital standard. For example, the SD port shown in Figure 2 is for the four-bit SD transfer mode, including pins for the voltage Vdd, the command line CMD, the clock line CLK, and the data bus DATA. The SD port of the memory card 200 may be assigned different functions if a different SD transfer mode is used, such as serial peripheral interface (SPI) or one-bit SD mode. The memory card 200 is configured such that it may be inserted in a certain direction and orientation so that the SD port interfaces with a mating SD port of a host device. In particular, the housing of the memory card 200 exposes the SD port. When the memory card 200 is inserted into a host device, the mating SD port of the host device is electrically connected to the SD port of the memory card 200.

[0022] The memory card 200 may also include additional pins as specified by the USB standard. For example, the USB port shown in Figure 2 includes serial data pins D+ and D-. As described above, the memory card 200 is configured to be inserted in a certain direction and orientation so that the SD port interfaces with a mating SD port of a host device. When the memory card 200 is inserted in this fashion, the USB port may also interface with a mating USB port of the host device. In particular, the housing of the memory card 200 exposes the USB port. When the memory card 200 is inserted into a host device, the mating USB port of the host device is electrically connected to the USB port of the memory card 200. Therefore, when the memory card 200 is inserted into a host device, the SD port and/or the USB port of the memory card 200 may be electrically connected to a mating SD port and/or a mating USB port of the host device, respectively. The host device may include a mating SD port, a mating USB port, and/or other types of mating ports.

[0023] Figure 3 is a block diagram of the memory card 100 of Figure 1 interfaced with a card reader 302 and a computer 304, via a Universal Serial Bus port 102. In Figure 3, data may be transferred between the computer 304 and the memory card 100 using the USB protocol, and

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using the card reader 302 as a host device. A memory card 100 may be inserted in a certain direction and orientation into the card reader 302 such that the SD port 104 would interface with a mating SD port. However, in Figure 3, the card reader 302 does not include a mating SD port. Instead, the USB port 102 of the memory card 100 may connect to a mating USB port 308 of the card reader 302. The USB port 102 may include the USB pins D+, D-, and Vbus. The computer 304 may include a USB host interface 306 to translate data to and from the USB protocol. The computer 304 may be connected to the card reader 302 via a standard USB connector, such as A-type, B-type, mini USB, and micro USB.

[0024] The memory card 100 may be connected to the card reader 302 and transfer data over the USB port 102 using the USB protocol, instead of using the SD port 104. When the memory card 100 is inserted into the card reader 302, there may be no electrical connection to the SD port 104 of the memory card 100 and only an electrical connection to the USB port 102 of the memory card 100 via the mating USB port 308 of the card reader 302. Because the memory card 100 may include the USB controller 106, the card reader 302 does not need to translate data to and from the USB protocol. Instead, the USB controller 106 on the memory card 100 translates data to and from the USB protocol. Data may be transferred between the USB port 102 of the memory card 100 and the USB host interface 306 of the computer 304, via the mating USB port 308 of the card reader 302.

[0025] Figure 4 is a block diagram of the memory card 100 of Figure 1 interfaced with an audio player 402 via a Secure Digital port 104. In Figure 4, data may be transferred between the audio player 402 and the memory card 100 using the SD protocol, using the pins CMD, CLK, DATA, and Vdd. The memory card 100 may be inserted in a certain direction and orientation into the audio player 402 such that the SD port 104 interfaces with a mating SD port 404 of the audio player 402. The mating SD port 404 may be electrically connected to the SD port 104 of the memory card 100. In this case, the USB port 102 of the memory card 100 is not electrically connected.

[0026] As described above, the data transferred between the audio player 402 and the memory card 100 may include signals generated by the decryption circuit 110 and the decompression circuit 112. For example, a PCM signal may be generated by the decryption circuit 110 and/or the decompression circuit 112, and be output on the SD port 104. The mating SD port 404 of the audio player 402 may receive the PCM signal from the memory card 100.

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The digital PCM signal may be converted to an analog signal for audio playback using a digital-to-analog converter or other suitable circuitry. The audio player 402 may also include other components such as a display for showing a title, artist, album, or other information. However, the audio player 402 does not need to include decompression or decryption circuitry because the memory card 100 may already include the decryption circuit 110 and the decompression circuit 112.

[0027] Figure 5 is a block diagram of the memory card 100 of Figure 1 interfaced with an electronic device 502 via a Universal Serial Bus port 102. In Figure 5, data may be transferred between the electronic device 502 and the memory card 100 using the USB protocol. The electronic device 502 may include a mating USB port 504 which may be directly connected to the USB port 102 via a standard USB connector, such as A-type, B-type, mini USB, and micro USB. The memory card 100 may include a Secure Digital Plus card, a USB flash drive, or other suitable memory device that can connect to the electronic device 502 via the USB port 102. The USB port 102, including USB pins D+, D-, and Vbus, may be exposed by the housing of the memory card 100. The memory card 100 may be configured to be inserted in a certain direction and orientation so that the SD port 104 would interface with a mating SD port. However, in Figure 5, the electronic device 502 does not include a mating SD port. Instead, the USB port 102 of the memory card 100 may connect to a mating USB port 504 of the electronic device 502. Data may be transferred between the USB port 102 of the memory card 100 and the mating USB port 504 of the electronic device 502.

[0028] Figure 6 is a flowchart illustrating a method 600 of an embodiment of the memory card 100. In Figure 6, encrypted data may be provided in Act 602. The encrypted data may be stored in the memory 108, such as a flash memory, magnetic disks, or other suitable non-volatile storage medium. In Act 604, it is determined whether the encrypted data is being transferred via the USB port or is being played back. If the encrypted data is being transferred via the USB port, the method 600 continues to Act 606. In Act 606, the encrypted data may be converted to a USB-compliant signal using, for example, the USB controller circuit 106. In Act 608, the USB-compliant signal may be transmitted on the USB port 102. The USB port 102 may include D+, D-, and Vbus pins, and the transmission may be at any data rate supported by the USB standard, including low speed (1.5 Mbit/s), full speed (12 Mbit/s), and hi-speed (480 Mbit/s). Once the encrypted data is transmitted, the method 600 is complete.

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[0029] If it is determined that the encrypted data is being played back in Act 604, the method 600 continues to Act 610. In Act 610, the method 600 checks if the encrypted data contains content based on a subscription model. Subscription content may include data that is usable only when a subscriber pays a monthly fee, for example, and expires if the subscription is not maintained. If the encrypted data includes subscription content, the method 600 continues to Act 612 to compare the current date and time to the expiration date and time of the encrypted data. The current date and time may be obtained from an external device connected to the memory card 100. The expiration date and time of the encrypted data may be stored in the memory 108 on the memory card 100, and may be updated when the encrypted data is initially stored on the memory card 100 and/or when the subscription for the encrypted data is extended. The subscription content may be expired, for example, if the current date and time is later than the expiration date and time. If the content is expired in Act 614, then the method 600 is complete. If the subscription content is not expired, for example, when the current date and time is not later than the expiration date and time, then the method 600 continues to Act 616. The method 600 also continues to Act 616 from Act 610 if the encrypted data does not include subscription content.

[0030] In Act 616, the encrypted data may be decrypted to decrypted data by suitable circuitry, such as the decryption circuit 110 described above. The encrypted data may be protected with digital rights management, including data protected using proprietary encryption techniques, subscription models, Microsoft PlaysForSure, Windows Media DRM, Janus DRM, and other protection techniques. In Act 618, the method 600 determines whether the decrypted data is compressed. If the decrypted data is not compressed, the method 600 may continue to Act 620, where pulse code modulated (PCM) data may be transmitted on an I/O port, such as the Secure Digital port 104. The PCM data may be generated by the host interface circuit 114 from the decrypted data. On the other hand, if the decrypted data is compressed, then the method 600 continues to Act 622 to decompress the decrypted data with the decompression circuit 112. The data may be compressed using the MP3 audio format, or with other forms of lossy and lossless compression. The decompression in Act 622 may generate PCM data, which may be transmitted on the I/O port in Act 620, such as on the Secure Digital port 104. Once the PCM data is transmitted, the method 600 is complete.

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[0031] All of the discussion above, regardless of the particular implementation being described, is exemplary in nature, rather than limiting. Although specific components of the portable handheld memory card are described, methods, systems, and articles of manufacture consistent with the portable handheld memory card may include additional or different components. For example, components of the portable handheld memory card may be implemented by one or more of: control logic, hardware, a microprocessor, microcontroller, application specific integrated circuit (ASIC), discrete logic, or a combination of circuits and/or logic. Further, although selected aspects, features, or components of the implementations are depicted as hardware or software, all or part of the systems and methods consistent with the portable handheld memory card may be stored on, distributed across, or read from machine-readable media, for example, secondary storage devices such as hard disks, floppy disks, and CD-ROMs; a signal received from a network; or other forms of ROM or RAM either currently known or later developed. Any act or combination of acts may be stored as instructions in computer readable storage medium. Memories may be DRAM, SRAM, Flash or any other type of memory. Programs may be parts of a single program, separate programs, or distributed across several memories and processors.

[0032] The processing capability of the portable handheld memory card may be distributed among multiple system components, such as among multiple processors and memories, optionally including multiple distributed processing systems. Parameters, databases, and other data structures may be separately stored and managed, may be incorporated into a single memory or database, may be logically and physically organized in many different ways, and may implemented in many ways, including data structures such as linked lists, hash tables, or implicit storage mechanisms. Programs and rule sets may be parts of a single program or rule set, separate programs or rule sets, or distributed across several memories and processors.

[0033] It is intended that the foregoing detailed description be understood as an illustration of selected forms that the invention can take and not as a definition of the invention. It is only the following claims, including all equivalents, that are intended to define the scope of this invention.

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What is claimed is:

1. A portable handheld memory card comprising:
a Universal Serial Bus (USB) port;
USB controller circuitry in communication with the USB port;
an input/output (I/O) port;
a memory in communication with the USB port and the I/O port; and
decompression circuitry configured to decompress compressed data stored in the memory.

2. The portable handheld memory card of Claim 1 further comprising:
decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

3. The portable handheld memory card of Claim 1 further comprising:
a power management unit in communication with the USB controller circuitry.

4. The portable handheld memory card of Claim 1 further comprising:
a host interface module in communication with the I/O port.

5. The portable handheld memory card of Claim 1 further comprising:
circuitry configured to control read and write operations to the memory.

6. The portable handheld memory card of Claim 1, wherein the I/O port comprises a Secure Digital port.

7. The portable handheld memory card of Claim 1, wherein the memory comprises Flash memory.

8. A portable handheld memory card comprising:
a Universal Serial Bus (USB) port;
USB controller circuitry in communication with the USB port;

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an input/output (I/O) port;

a memory in communication with the USB port and the I/O port; and

a housing storing the memory and exposing the USB port and the I/O port, wherein the USB port and the I/O port are positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port.

9. The portable handheld memory card of Claim 8 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

10. The portable handheld memory card of Claim 8 further comprising:

decompression circuitry configured to decompress compressed data stored in the memory.

11. The portable handheld memory card of Claim 8 further comprising:

a power management unit in communication with the USB controller circuitry.

12. The portable handheld memory card of Claim 8 further comprising:

a host interface module in communication with the I/O port.

13. The portable handheld memory card of Claim 8 further comprising:

circuitry configured to control read and write operations to the memory.

14. The portable handheld memory card of Claim 8, wherein the I/O port comprises a Secure Digital port.

15. The portable handheld memory card of Claim 8, wherein the memory comprises Flash memory.

16. A portable handheld memory card comprising:

an input/output (I/O) port;

a memory in communication with the I/O port;

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circuitry configured to control read and write operations to the memory; and

decompression circuitry configured to decompress compressed data stored in the memory.

17. The portable handheld memory card of Claim 16 further comprising:

decryption circuitry in communication with the memory and configured to decrypt encrypted data stored in the memory.

18. The portable handheld memory card of Claim 16 further comprising:

a Universal Serial Bus (USB) port; and

USB controller circuitry in communication with the USB port.

19. The portable handheld memory card of Claim 16 further comprising:

a host interface module in communication with the I/O port.

20. The portable handheld memory card of Claim 16, wherein the I/O port comprises a Secure Digital port.

21. The portable handheld memory card of Claim 16, wherein the memory comprises Flash memory.

22. A method comprising:

with a portable handheld memory card:

reading compressed data from a memory of the portable handheld memory card;

decompressing the compressed data to decompressed data;

transmitting the decompressed data on an input/output (I/O) port of the portable handheld memory card;

converting the compressed data to first converted data for transmission on a Universal Serial Bus (USB) port of the portable handheld memory card; and

transmitting the first converted data on the USB port.

23. The method of Claim 22 further comprising:

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reading encrypted data from the memory;

decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

24. The method of Claim 22 further comprising:

converting a first voltage of the USB port to a second voltage of the portable handheld memory card.

25. The method of Claim 22 further comprising:

converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

26. The method of Claim 22 further comprising:

controlling reading and writing to the memory.

27. The method of Claim 22, wherein the I/O port comprises a Secure Digital port.

28. The method of Claim 22, wherein the memory comprises Flash memory.

29. A method comprising:

with a portable handheld memory card:

reading compressed data from a memory of the portable handheld memory card;

decompressing the compressed data to decompressed data; and

transmitting the decompressed data on an input/output (I/O) port of the portable handheld memory card.

30. The method of Claim 29 further comprising:

reading encrypted data from the memory;

decrypting the encrypted data to decrypted data; and

transmitting the decrypted data on the I/O port.

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31. The method of Claim 29 further comprising:

converting the compressed data to first converted data for transmission on a Universal Serial Bus (USB) port of the portable handheld memory card; and

transmitting the first converted data on the USB port.

32. The method of Claim 29 further comprising:

converting the decompressed data to second converted data for transmission on the I/O port; and

transmitting the second converted data on the I/O port.

33. The method of Claim 29, wherein the I/O port comprises a Secure Digital port.

34. The method of Claim 29, wherein the memory comprises Flash memory.

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ABSTRACT

In one embodiment, a portable handheld memory card may include a Universal Serial Bus (USB) port, USB controller circuitry, an input/output (I/O) port, a memory, and decompression circuitry configured to decompress compressed data stored in the memory. The memory card includes a housing storing the memory and exposing the USB port and the I/O port. The USB port and I/O port may be positioned to allow a same card-insertion direction irrespective of whether a host device comprises a mating USB port or a mating I/O port. In another embodiment, the memory card includes decryption circuitry to decrypt encrypted data stored in the memory, a power management unit, a host interface module, and circuitry configured to control read and write operations to the memory. The I/O port may include a Secure Digital port, and the memory may include Flash memory. Other embodiments are provided, and each of the embodiments described herein can be used alone or in combination with one another.

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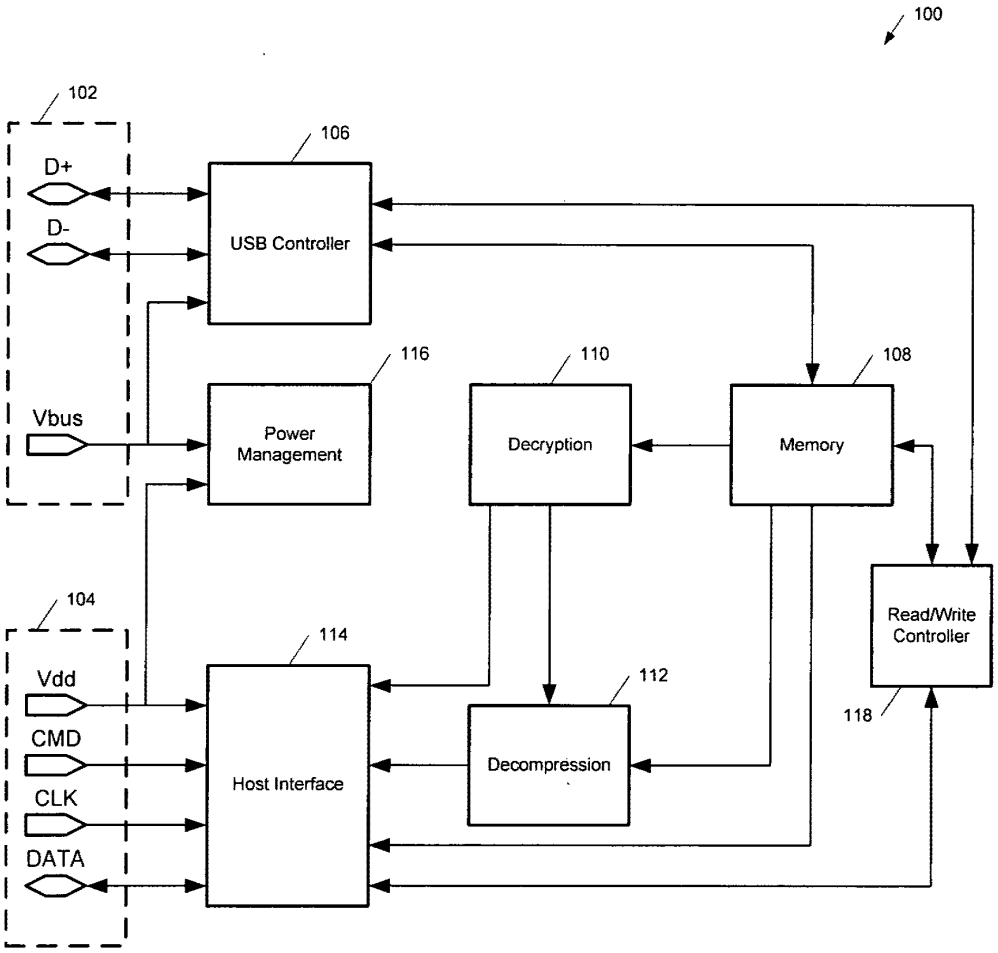

100
102
D+
D-
Vbus
106
USB Controller
116
Power Management
110
Decryption
108
Memory
Read/Write Controller
118
104
Vdd
CMD
CLK
DATA
114
Host Interface
112
Decompression

Figure 1

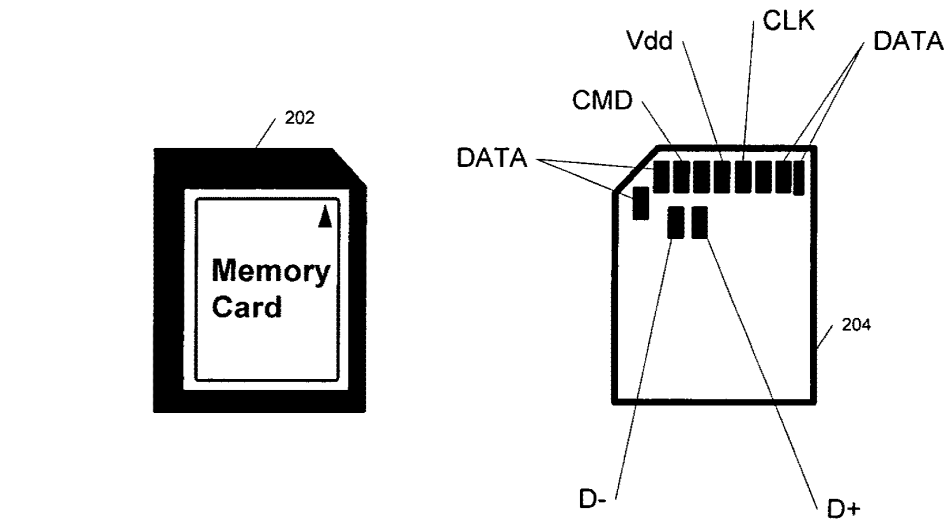


Figure 2

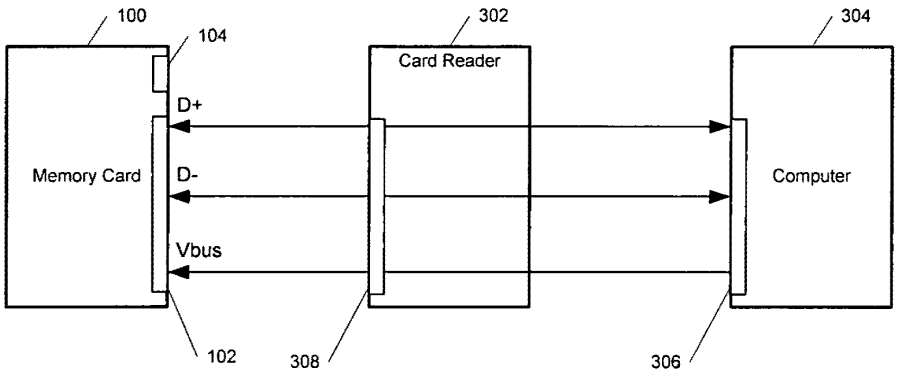

100
104
302
Card Reader
304
D+
Memory Card
D-
Computer
Vbus
102
308
306

Figure 3

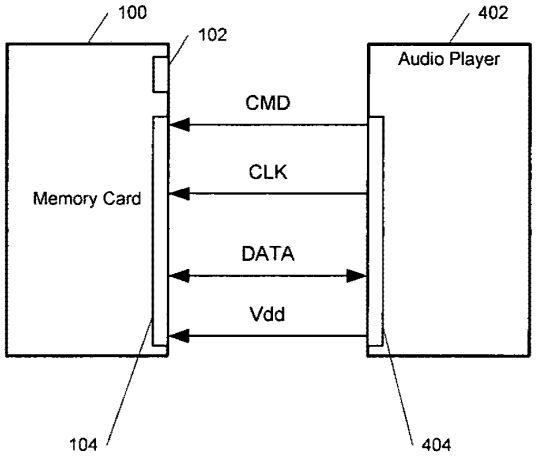


Figure 4

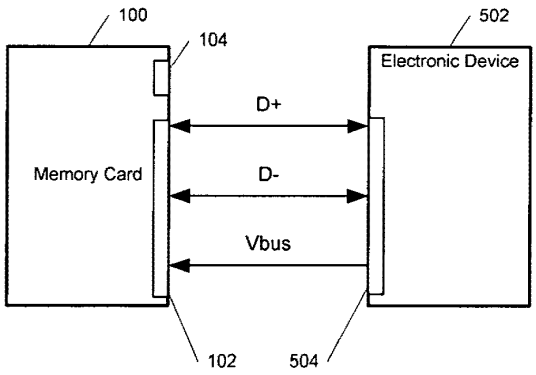


Figure 5

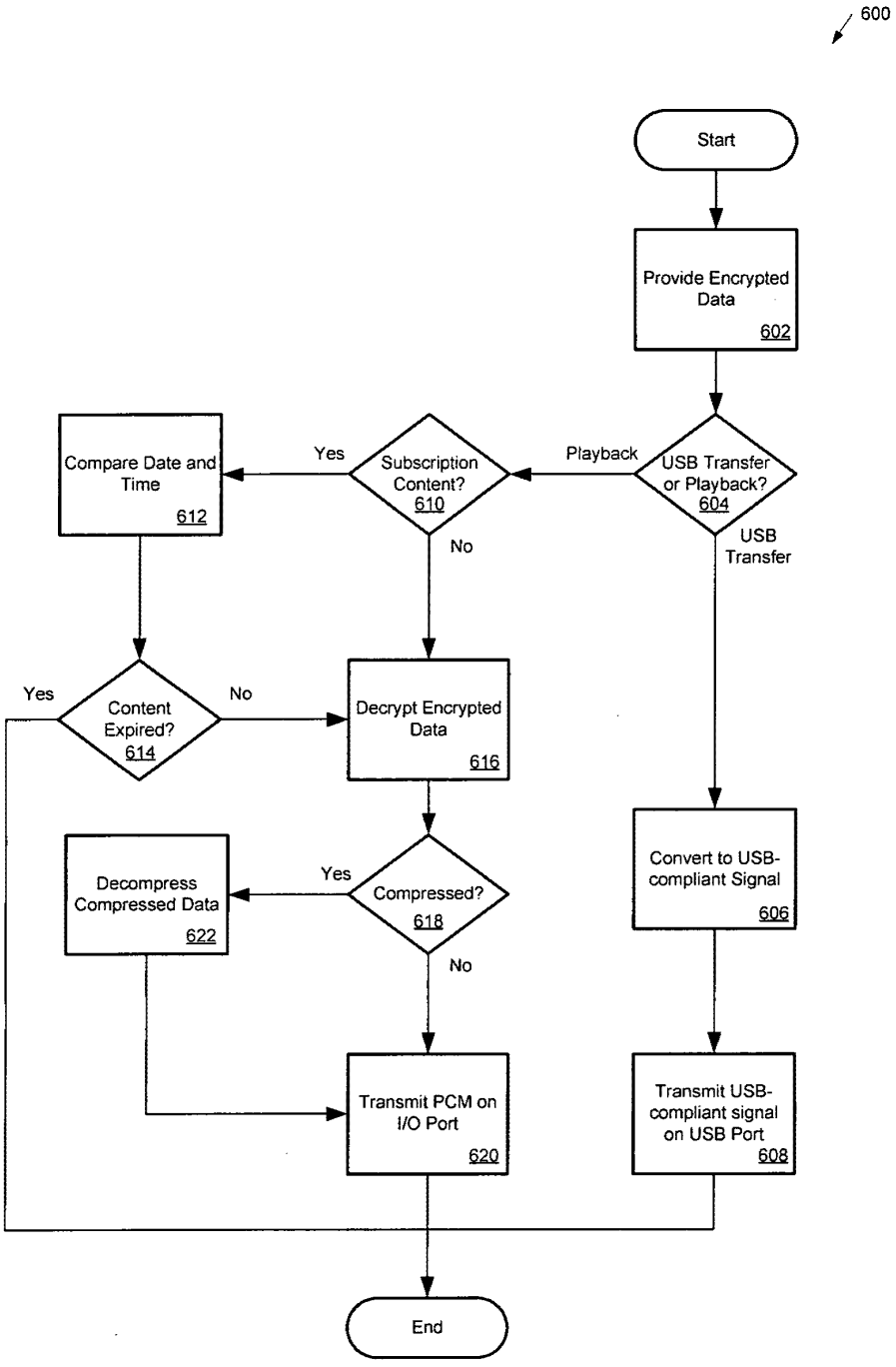

600
Start
Provide Encrypted Data
602
USB Transfer or Playback?
604
Playback
USB Transfer
Subscription Content?
610
Yes
No
Compare Date and Time
612
Content Expired?
614
Yes
No
Decrypt Encrypted Data
616
Compressed?
618
Yes
No
Decompress Compressed Data
622
Convert to USB-compliant Signal
606
Transmit PCM on I/O Port
620
Transmit USB-compliant signal on USB Port
608
End

Figure 6

Atty. Dkt. No. 10519-226

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 C.F.R. §1.63)

As a below named inventor, I hereby declare:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled:

Portable Handheld Memory Card and Methods for Use Therewith

the specification of which (check one)

☒ is attached hereto.

☐ was filed on _____ as United States Application No. _____ and was amended with the Preliminary Amendment filed herewith.

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge my duty to disclose to the United States Patent and Trademark Office all information that I know to be material to the patentability of this application as defined in 37 C.F.R. §1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or (f), or §365(b) of any foreign application(s) for patent or inventor's or plant breeder's rights certificate(s), or §365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's or plant breeder's rights certificate(s) or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):			Priority Not Claimed
_____ (Number)	_____ (Country)	_____ (Filing Date, MM/DD/YYYY)	☐
_____ (Number)	_____ (Country)	_____ (Filing Date, MM/DD/YYYY)	☐

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

_____ (Application Serial No.)	_____ (Filing Date, MM/DD/YYYY)	_____ (Status: pending, or abandoned)
_____ (Application Serial No.)	_____ (Filing Date, MM/DD/YYYY)	_____ (Status: pending, or abandoned)
_____ (Application Serial No.)	_____ (Filing Date, MM/DD/YYYY)	_____ (Status: pending, or abandoned)

Petitioner Micron Ex-1004, 0306

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s), or §365(c) of any PCT International Application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application.

(Application Serial No.)	(Filing Date, MM/DD/YYYY)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing Date, MM/DD/YYYY)	(Status: patented, pending, abandoned)
(Application Serial No.)	(Filing Date, MM/DD/YYYY)	(Status: patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole inventor Myeong Joon Kang	11/16/07 Date
Sole inventor's signature	
Residence (City, State/Foreign Country) San Ramon, CA 94583 USA	
Citizenship Korean	
Mailing Address 139 Claremont Crest Court, San Ramon, CA 94583 USA	

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FORM PTO-1449	SERIAL NO. To Be Determined	CASE NO. 10519-226
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	FILING DATE Herewith	GROUP ART UNIT To Be Determined
(use several sheets if necessary)	APPLICANT(S): Myeong Joon Kang	

REFERENCE DESIGNATION **U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	NAME	CLASS/ SUBCLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER Number-Kind Code (if known)	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES OR NO

EXAMINER INITIAL		OTHER ART – NON PATENT LITERATURE DOCUMENTS (Include name of author, title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date page(s), volume-issue number(s), publisher, city and/or country where published.
	A1	SanDisk Ultra II SD Plus Cards, http://www.sandisk.com/Products/Catalog(1096)-SanDisk_Ultra_II_SD_Plus_Cards.aspx, 1 page, printed November 12, 2007.
	A2	New Rolling Stones Album, A Bigger Bang, Will Be Sold on New GRUVI Music Cards From Sandisk, http://www.sandisk.com/Corporate/PressRoom/PressReleases/PressRelease.aspx?ID=1751, 2 pages, September 25, 2005.
	A3	SanDisk Receives CES Innovation Design Award For Its gruvi Rolling Stones Music Card, http://www.sandisk.com/Corporate/PressRoom/PressReleases/PressRelease.aspx?ID=3287, 2 pages, January 31, 2006.
	A4	SanDisk Sansa Express MP3 Players, http://www.sandisk.com/Products/Catalog(1226)-SanDisk_Sansa_Express_MP3_Players.aspx, 2 pages, printed November 12, 2007.
	A5	SanDisk Cruzer Micro USB Flash Drive, http://www.sandisk.com/Products/Catalog(1168)-SanDisk_Cruzer_Micro_USB_Flash_Drive.aspx, 2 pages, printed November 12, 2007.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PATENT APPLICATION SERIAL NO._____

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE
FEE RECORD SHEET

11/26/2007 EAYALEW1 00000007 11986369

01 FC:1011	310.00 OP
02 FC:1111	510.00 OP
03 FC:1311	210.00 OP
04 FC:1201	420.00 OP
05 FC:1202	700.00 OP

PTO-1556
(5/87)

*U.S. Government Printing Office: 2002- 489-267/69033

PTO/SB/06 (10-07)
Approved for use through 06/30/2010. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 11,986,389

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	$155		N/A	$310
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	$255		N/A	$510
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	$105		N/A	$210
TOTAL CLAIMS (37 CFR 1.16(i))	34 minus 20 =	* 14	X $25 =		OR	X $50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	5 minus 3 =	* 2	X $105 =			X $210 =	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $260 ($130 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).		$130			$260	
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			$185			$370	
* If the difference in column 1 is less than zero, enter "0" in column 2.			29 TOTAL			TOTAL	

APPLICATION AS AMENDED – PART II

18
22

AMENDMENT A

	(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 ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $25 =		OR	X $50 =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $105 =		OR	X $210 =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					$185		OR	$370	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT B

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)	OR	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $25 =		OR	X $50 =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $105 =		OR	X $210 =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					$185		OR	$370	
					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 number found in the appropriate box in column 1.

This collection of information is required by 37 CFR 1.16. 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 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.**

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

Petitioner Micron Ex-1004, 0310

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Date of Deposit: November 20, 2007

Our Case No. 10519-226

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Myeong Joon Kang	
Serial No. Unassigned	
Filing Date: Herewith	Examiner: Unknown
For PORTABLE HANDHELD MEMORY CARD AND METHODS FOR USE THEREWITH	Group Art Unit No. Unassigned

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir or Madam:

Pursuant to the obligation under 37 C.F.R. § 1.56 and in conformance with 37 C.F.R. §§ 1.97-1.98, Applicants hereby submit documents A1-A5 listed on the attached form PTO-1449 for consideration by the Examiner. Applicants request that the Examiner review the entire disclosure of these documents and make them of record. Copies of the these documents are enclosed.

The filing of this Information Disclosure Statement does not constitute an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, Applicants reserve the right to contest that any of the information

Respectfully submitted,

Joseph F. Hetz
Registration No. 41,070
Attorney for Applicant