03/28/2013

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OMB No. 0651-0027 (exp. 04/30/2015)

U.S. DEPARTMENT OF COMMERCE
United States Patent and Trademark Office

RECORDATION FORM COVER SHEET
PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)

ION Systems, Inc.

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

2. Name and address of receiving party(ies)

Name: ILLINOIS TOOL WORKS INC.

Internal Address:

Street Address: 3600 West Lake Avenue

City: Glenview

State: ILLINOIS

Country: USA Zip: 60026-1215

Additional name(s) & address(es) attached? ☐ Yes ☒ No

3. Nature of conveyance/Execution Date(s):

Execution Date(s) May 13, 2010

☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Joint Research Agreement
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other

4. Application or patent number(s): ☐ This document is being filed together with a new application.

A. Patent Application No.(s)

13/210,267

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

5. Name and address to whom correspondence concerning document should be mailed:

Name: Stephen Uriarte

Internal Address:

Street Address: 2021 The Alameda, Ste 225

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Phone Number: 408-244-2164

Docket Number: 6000.016CON

Email Address: stephen@uriartelaw.com

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 1.21(h) & 3.41) $40

☐ Authorized to be charged to deposit account
☒ Enclosed
☐ None required (government interest not affecting title)

8. Payment Information

Deposit Account Number

Authorized User Name

9. Signature:

Signature — 21 March 2013 Date

Arnold de Guzman
Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 11

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03/27/2013 HVUONG1 00000005 13210267
03 FC:8021 PATENT 40.00 OP

PATENT ASSIGNMENT

Whereas, ION SYSTEMS, INC. (hereinafter known as the "Assignor"), a corporation of the State of California, USA, having its principal place of business at 1750 North Loop Road, Alameda, California 94502, USA, is the owner of certain inventions for which Letters Patent have been issued and for which applications for Letters Patent have been executed, as listed in Schedule A attached hereto ("the Patents"); and

Whereas, ILLINOIS TOOL WORKS INC. (hereinafter known as "Assignee"), a corporation of the State of Delaware, having its principal place of business at 3600 West Lake Avenue, Glenview, Illinois 60026-1215, USA, is desirous of acquiring the Assignor's entire right, title, and interest in and under the Patents;

Now, therefore, for good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, Assignor assigns and transfers to the Assignee and the Assignee's legal representatives, successors and assigns

- its full and exclusive rights in and to the Patents in the U.S. and every foreign country and its entire right, title, and interest in and to the Patents and other such applications (e.g., provisional applications, non-provisional applications, continuations, continuations-in-part, divisionals, reissues, reexaminations, National phase applications, including petty patent applications, and utility model applications) that may be filed in the United States and every foreign country on the inventions, and the patents, extensions, or derivations thereof, both foreign and domestic, that may issue thereon, and

the Assignor hereby authorizes and requests the Commissioner of Patents to issue U.S. patents to the above-mentioned Assignee agreeably with the terms of this assignment document.

Upon said consideration, Assignor conveys to the Assignee the right

- to make application in its own behalf for protection of the inventions in the U.S. and countries foreign to the U.S. and
- to claim under the Patent Cooperation Treaty, the International Convention and/or other international arrangement for any such application the date of the U.S. application (or any other application on the invention) to gain priority with respect to other applications.

Assignor does hereby covenant and agree with the Assignee that

- it will not execute any writing or do any act whatsoever conflicting with the terms of this assignment document set forth herein, and

attempts of the new software image fail after a predetermined number of download attempts.

Claim 40 (previously presented): The article of manufacture of claim 10, wherein the instructions prevent a download of the new software image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 41 (previously presented): The article of manufacture of claim 40, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 42 (previously presented): The apparatus of claim 11, further comprising: means for preventing a download of the new software image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 43 (previously presented): The apparatus of claim 42, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 44 (previously presented): The method of claim 12, further comprising: preventing a download of the new software image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 45 (previously presented): The method of claim 44, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 46 (previously presented): The article of manufacture of claim 18, wherein the instructions prevent a download of the new software image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 47 (previously presented): The article of manufacture of claim 46, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 48 (previously presented): The apparatus of claim 19, further comprising: means for preventing a download of the new software image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 49 (previously presented): The apparatus of claim 48, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 50 (previously presented): The apparatus of claim 20, wherein the device prevents a download of the new software

- it will at any time upon request, without further or additional consideration, but at the expense of the Assignee,
    - execute such additional assignments and other writings and do such additional acts as the Assignee may deem necessary or desirable to perfect the Assignee's enjoyment of this assignment, and
    - render all necessary assistance in making application for and obtaining original, continuation, continuation-in-part, divisional, reissued, reexamined, and National phase patents of the U.S. or of any and all foreign countries on the inventions, and in enforcing any rights or choses in action accruing as a result of such applications or patents, and by executing statements and other affidavits,

it being understood that the foregoing covenant and agreement shall bind, and inure to the benefit of, the assigns and legal representatives of all parties hereto.

In witness whereof, Assignee and Assignor have caused their officers to hereunder set their hands on the date shown below.

ION SYSTEMS, INC.

Date December 14, 2011

By: _____
Allan C. Sutherland Jr.
Vice President

STATE OF Illinois)
) SS:
COUNTY OF Cook)

On this 14th day of December, 2011, before me, a Notary Public in and for said county, appeared Allan C. Sutherland Jr., who is personally known to me or proved to me on the basis of satisfactory evidence to be the same person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed and delivered the instrument in his/her authorized capacity, and that by his/her signature on the instrument the entity on behalf of which the person acted, executed the instrument.

{SEAL}

_____

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CAROL T GERMAINE
MY COMMISSION EXPIRES
MAY 14, 2013

image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 51 (previously presented): The apparatus of claim 50, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 52 (previously presented): The apparatus of claim 25, wherein the device prevents a download of the new software image from the target server to the device, if ping messages fail after a predetermined number of transmissions.

Claim 53 (previously presented): The apparatus of claim 52, wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

Claim 54 (previously presented): The method of claim 32 wherein the predetermined number of transmissions comprises a plurality of sets of ping messages where each set is separated by a sleep state.

REMARKS/ARGUMENTS

Various claims are being amended as shown above. The claim amendments clarify the claim language and are not intended to limit the scope of the claims, unless the claim language is expressly quoted in the following remarks to distinguish over the cited art. No new matter is being added by virtue of the amendment to the claims.

In the office action, claims 1-2, 4, 9-11, and 20-21 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French, et al. (U.S. Pat. No. 6,988,193), in view of Chiu (US 2003/0031134 A1). Applicant respectfully traverses the rejection.

French is directed to a system 100 (Figure 1) that downloads boot files and operating system images from a storage unit 106 via the remote servers to the target devices 108.

Chiu is directed to a packet network 200 where: (1) an IP telephone 210 sends a DHCP request 300 to a DHCP server 216; (2) the IP telephone 210 receives (from the DHCP server 216) a DHCP message 302 that has an IP address of a remote TFTP server 218 and a filename of an initialization script in the remote TFTP server 218, and (3) the IP telephone 210 requests and receives the initialization script from the remote TFTP server 218 by use of the IP address and the filename in the previously-received DHCP message 302. The DHCP message 302 that is previously sent to the IP telephone 210 only provides an IP address of the remote server 218 and a filename of a file that may

In witness whereof, Assignee has caused its officer to hereunder set his or her hand on the date shown below.

ILLINOIS TOOL WORKS INC.

By: Mark W. Croll

Date December 14, 2011

Vice President, Intellectual Property

STATE OF Illinois)
) SS:
COUNTY OF Cook)

On this 14th day of December, 2011, before me, a Notary Public in and for said county, appeared Mark W. Croll, who is personally known to me or proved to me on the basis of satisfactory evidence to be the same person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed and delivered the instrument in his/her authorized capacity, and that by his/her signature on the instrument the entity on behalf of which the person acted, executed the instrument.

{SEAL}

OFFICIAL SEAL
LINDA LORANGER
Notary Public - State of Illinois
My Commission Expires May 14, 2015

possibly be downloaded from the remote server 218. However, the DHCP message 302 in Chiu does not allow a response by the IP telephone 210 to invoke a TFTP firmware download function for automatically downloading software images from the remote server 218.

Independent claim 1 distinguishes over the French-Chiu combination, at least by reciting a method including the step of: "*in response to the automatic TFTP statement in the configuration file, invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server*", and such recited features are not disclosed or are not suggested by the French-Chiu combination.

Accordingly, claim 1 is patentable over the French-Chiu combination.

Independent claims 10, 11, and 20 are being amended to recite similar features that distinguish over the French-Chiu combination. Accordingly, claims 10, 11, and 20 are each patentable over the French-Chiu combination.

Claims 2, 4, 9, and 21 are dependent on one of claims 1 and 20, and are each patentable over the French-Chiu combination for at least the same reasons that their respective base claims are each patentable over the same combination. Furthermore, each of the dependent claims 2, 4, 9, and 21 recites additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 2, 4, 9, and 21 are each patentable over the cited

French-Chiu combination, considered singly or in combination.

Applicant also respectfully asserts that the French-Chiu combination is improper, since it is improper to combine references where the references teach away from their combination. See MPEP 2145(X)(D)(2), and *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983) (The claimed catalyst which contained both iron and an alkali metal was not suggested by the combination of a reference which taught the interchangeability of antimony and alkali metal with the same beneficial result, combined with a reference expressly excluding antimony from, and adding iron to, a catalyst.). French teaches the remote boot server 107 as performing the step of verifying the configuration files in the target devices 108-112. French does not disclose the target devices 108-112 themselves as performing the step of verifying the configuration files in the target devices 108-112. Therefore, since French discourages in permitting his target devices 108-112 to verify the configuration files in the target devices 108-112, French teaches away from the French-Chiu combination. In other words, since French teaches that the remote boot server 107 verifies the configuration files in the target devices 108-112 and since French does not in any way disclose his target devices 108-112 in performing the step of verifying the configuration files in the target devices 108-112, French teaches away from incorporating Chiu's target IP telephone 210 which compares stored software. Therefore, French teaches away from the French-Chiu combination. Accordingly, in accordance with MPEP 2145 and

SCHEDULE A
(Page 1 of 2)

TITLE	PATENT NUMBER	APPLICATION NO.
ESD MONITORING CIRCUIT AND DEVICE	5719502	08/587256
METHOD AND APPARATUS FOR AUTOMATICALLY CLEANING IONIZING ELECTRODES	5768087	08/743987
METHOD AND APPARATUS FOR AIR IONIZATION	5930105	08/966638
APPARATUS AND METHOD FOR MONITORING OF AIR IONIZATION	6130815	09/311775
SELF-BALANCING SHIELDED BIPOLAR IONIZER	6002573	09/006773
CIRCUIT AND DEVICE TO DETECT GROUNDING PROBLEMS IN ELECTRICAL SOLDERING IRONS	6310557	09/270972
IONIZING BAR AND METHOD OF ITS FABRICATION	6330146	09/519159
PULSE OSCILLATOR AND VOLTAGE LEVEL CONVERTER	6515458	09/844580
IN-LINE GAS IONIZER AND METHOD	6563110	09/563776
SIMULTANEOUS NEUTRALIZATION AND MONITORING OF CHARGE ON MOVING MATERIAL	6674630	09/948269
AIR IONIZER WITH STATIC BALANCE CONTROL	6693788	09/853081
ELECTROSTATIC CHARGE MEASUREMENT ON SEMICONDUCTOR WAFERS	6781205	10/269426
DYNAMIC AIR IONIZER AND METHOD	6791815	09/698707
CORONA DISCHARGE APPARATUS AND METHOD OF MANUFACTURE	6807044	10/428363
AIR IONIZER AND METHOD	6850403	10/238400
SELF-BALANCING SHIELDED BIPOLAR IONIZER WITH AIR ASSIST	7042694	10/713330
ION GENERATION METHOD AND APPARATUS	7057130	10/821773
MULTI-FREQUENCY STATIC NEUTRALIZATION		11/398446
AIR IONIZATION MODULE AND METHOD	7212393	10/956189
COLLIMATED IONIZER AND METHOD	7295418	11/037408

cited case law therein, claim 1 is patentable over the French-Chiu combination because the French-Chiu combination is improper.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 3, 6-7, 12-19, 22-29, 33, and 38 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French in view of Goodman (US Pat. No. 6,904,457). Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly disclose rebooting the device with the downloaded new software image, and fails to explicitly disclose the upgrading of firmware. In an attempt to overcome the deficiencies of French, the Examiner relies on Goodman in an attempt to show various features.

Independent claims 12, 18, 19, and 25 are being amended to recite similar features that are in claim 1 and to distinguish over the French-Chiu-Goodman combination. The French-Chiu-Goodman combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to the automatic TFTP statement in the configuration file. Also, the French-Chiu combination is improper based upon the reasons discussed

above. Accordingly, claims 12, 18, 19, and 25 are each patentable over the French-Chiu-Goodman combination.

Also, claims 3, 6-7, 13-17, 22-24, 26-29, 33, and 38 are dependent on one of claims 1, 12, 20, and 25, and are each patentable over the French-Chiu-Goodman combination for at least the same reasons that their respective base claims are each patentable over the same combination. Furthermore, each of the dependent claims 3, 6-7, 13-17, 22-24, 26-29, 33, and 38 recites additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 3, 6-7, 13-17, 22-24, 26-29, 33, and 38 are each patentable over the cited French-Chiu-Goodman combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 8 and 37 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French and Chiu in view of Fichtner et al. (US Pat. No. 6,360,362). Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly teach discontinuing the download of the new software image if there is no match between the new software image from the target file and the current software image currently running in the device, and fails to explicitly teach the prevention of a download

SCHEDULE A
(Page 2 of 2)

TITLE	PATENT NUMBER	APPLICATION NO.
CORONA DISCHARGE STATIC NEUTRALIZING APPARATUS	7339778	10/459865
IONIZING ELECTRODE STRUCTURE AND APPARATUS	7483255	11/353760
AIR ASSIST FOR AC IONIZERS	7697258	11/539610
HIGH VOLTAGE POWER SUPPLY FOR STATIC NEUTRALIZERS	7889477	11/767295
LOW MAINTENANCE AC GAS FLOW DRIVEN STATIC NEUTRALIZER AND METHOD	8009405	12/049350
PREVENTION OF EMITTER CONTAMINATION WITH ELECTRONIC WAVEFORMS	7813102	12/075967
SILICON EMITTERS FOR IONIZERS WITH HIGH FREQUENCY WAVEFORMS		12/456526
ELECTROSTATICALLY APPLYING A LABEL TO A MOLD CAVITY		12/451445
METHOD AND APPARATUS FOR MONITORING AND CONTROLLING IONIZING BLOWERS	7729101	11/998767
CLEAN CORONA GAS IONIZATION FOR STATIC CHARGE NEUTRALIZATION	8048200	12/799369
APPARATUS AND METHOD FOR MEASURING STATIC CHARGE ON WAFERS, DISKS, SUBSTRATES, MASKS, AND FLAT PANEL DISPLAYS	6719142	10/197085
WIDE RANGE STATIC NEUTRALIZER AND METHOD	7479615	11/136754
MULTI-FREQUENCY STATIC NEUTRALIZATION OF MOVING CHARGED OBJECTS	7679026	11/623316
SILICON ION EMITTER ELECTRODES	5447763	08/314535
APPARATUS AND METHOD FOR MONITORING OF AIR IONIZATION	6259591	09/590193

after a predetermined number of failed attempts. In an attempt to overcome the deficiencies of French, the Examiner relies on Fichtner in an attempt to show various features.

Independent claims 1 and 20 are being amended above to distinguish over the French-Chiu-Fichtner combination. The French-Chiu-Fichtner combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to the automatic TFTP statement in the configuration file. Also, the French-Chiu combination is improper based upon the reasons discussed above. Accordingly, claims 1 and 20 are each patentable over the French-Chiu-Fichtner combination.

Also, claims 8 and 37 are dependent on one of claims 1 and 20, and are each patentable over the French-Chiu-Fichtner combination for at least the same reasons that their respective base claims are each patentable over the same combination. Furthermore, each of the dependent claims 8 and 37 recites additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 8 and 37 are each patentable over the cited French-Chiu-Fichtner combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 30, 32, 35, 40, 42, and 50 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French and Chiu in view of Greschler, et al. (U.S. Pat. No. 6,938,096). Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly disclose the use of ping messages, and fails to explicitly disclose preventing downloading if ping messages fail after a predetermined number of transmissions. In an attempt to overcome the deficiencies of French, the Examiner relies on Greschler in an attempt to show various features.

Independent claims 1, 10, 11, and 20 are being amended above to distinguish over the French-Chiu-Greschler combination. The French-Chiu-Greschler combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to the automatic TFTP statement in the configuration file. Also, the French-Chiu combination is improper based upon the reasons discussed above. Accordingly, claims 1, 10, 11, and 20 are each patentable over the French-Chiu-Greschler combination.

Also, claims 30, 32, 35, 40, 42, and 50 are dependent on one of claims 1, 10, 11, and 20, and are each patentable over the French-Chiu-Greschler combination for at least the same reasons that their respective base claims are each patentable over the same combination. Furthermore, each of the dependent claims 30, 32, 35, 40, 42, and 50 recites

PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ION SYSTEMS, INC.	12/14/2011

RECEIVING PARTY DATA

Name:	ILLINOIS TOOL WORKS INC.
Street Address:	3600 West Lake Avenue
Internal Address:	IP Department
City:	Glenview
State/Country:	ILLINOIS
Postal Code:	60026

PROPERTY NUMBERS Total: 35

Property Type	Number
Patent Number:	5719502
Patent Number:	5768087
Patent Number:	5930105
Patent Number:	6130815
Patent Number:	6002573
Patent Number:	6310557
Patent Number:	6330146
Patent Number:	6515458
Patent Number:	6563110
Patent Number:	6674630
Patent Number:	6693788
Patent Number:	6781205
Patent Number:	6791815
Patent Number:	6807044

CH $1400.00 5719502

TABLE 2.4b
EVENT DEFINITION CODES

E(6:3)	E2	E1	E0	EVENT ACTION(S)
0	0	0	0	RESET DEVICE, Set its ID register to 255, set its sub-ID register to 15
0	0	0	1	RESET DEVICE, Leave its ID REGISTER and SUB-ID REGISTER unchanged
0	0	1	0	Perform an AUTO-REFRESH
0	0	1	1	CLOSE all ROWS
0	1	0	0	Enter SELF-REFRESH mode
0	1	0	1	Exit SELF-REFRESH mode
0	1	1	0	Adjust Settings
0	1	1	1	Reserved
1	x	x	x	Reserved
2	x	x	x	Reserved
3	x	x	x	Reserved
4-7	x	x	x	Open Space for Vendor Specific Events

[0167] Device-internal registers and other memory may be used for storing device local ID codes, calibration values and other information. Table 2.5 shows one possible configuration for allocation of registered information over the address space of REG(0:6). This space is divided into a write-only side to which ID and calibration data can be written, and into a read-only side which stores device characteristics information such number of banks, delay values, and so forth. The 'Configuration' data includes an indication of how many DQ lines are present in the device (e.g., 16, 18, 32, 36, 64, 72, etc.). This lets the controller 150 know if multiple datalinks may be available for use.

United States Patent and Trademark Office

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PATENT ASSIGNMENT

Electronic Version v1.1
Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Peter Gefter	05/05/2008
Lawrence Levit	05/12/2008
Leslie Partridge	05/06/2008
Scott Gehlke	05/07/2008

RECEIVING PARTY DATA

Name:	MKS Instruments, Inc.
Street Address:	2 Tech Drive
Internal Address:	Suite 201
City:	Andover
State/Country:	MASSACHUSETTS
Postal Code:	01810

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12049350

CORRESPONDENCE DATA

Fax Number: (408)716-2651

TABLE 2.5
REGISTER SPACE

REG (6:3)	REG2	REG1	REG0	WRITE-ONLY (CONTROL)	READ-ONLY (STATUS)
0	0	0	0	ID	Configuration (No. Banks, Rows, Columns, DQ_lines)
0	0	0	1	SUB-ID	Actual Delays
0	0	1	0	Frequency (current)	Minimum Delays
0	0	1	1	Test	Maximum Delays
0	1	0	0	Page Read Delay (PgR)	Test
0	1	0	1	Page Write Delay (PgW)	tRAS/tRP (RowOpenTime/PreCharge)
0	1	1	0	Bank Read Delay (BkR)	tRC1/tRC2 (RowOpenTime/AutoRefresh Time)
0	1	1	1	Bank Write Delay (BkW)	tRRD/tXSR (BankOpenTime/Exit Self Refresh Time)
1	0	0	0	Reserved	tWR/tWRD (Write to Read Time Delay)
1	0	0	1	Reserved	tPR/tBR (Max_PgR/Max_BkR)
1	0	1	0	Reserved	tPW/tBW (Min_PgW/Min_BkW)
1	x	x	x	Reserved	
2-7	x	x	x	Reserved	

[0168] In response to the command module 150' placing a code representing the current frequency of CCLK in the 'Frequency' register of a given SLDRAM module, the latter module will generally alter the characteristics information (e.g., min/max delay times) it provides on the read-only side of its LCM. Analog behavior of certain parts of the SLDRAM module may vary according to what CCLK frequency is being currently used by the controller 150.

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

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ATTORNEY DOCKET NUMBER:	6000.016
NAME OF SUBMITTER:	Stephen R. Uriarte
Signature:	/Stephen R. Uriarte/
Date:	07/09/2008

Total Attachments: 4
source=6000_016_AssigSignedB_20080709#page1.tif
source=6000_016_AssigSignedB_20080709#page2.tif
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source=6000_016_AssigSignedB_20080709#page4.tif

RECEIPT INFORMATION

EPAS ID:	PAT602011
Receipt Date:	07/09/2008
Fee Amount:	$40

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SLDRAM Module Initialization and Calibration

[0169] System level calibration of individual SLDRAM module timings and output drive levels allows for high manufacturing yield using more mature semiconductor processes and lower cost for SLDRAM components. Individual devices are not required to meet tight AC and DC parametric specifications. Rather, these are calibrated at the system level both during initialization, and later periodically over time to compensate for wide variation in individual device parameters and time-dependent drift.

[0170] In one embodiment, when the SLDRAM memory subsystem 100 is powered up, the controller 150 must take the following steps, STEP1-STEP8 before normal memory operations can begin.

[0171] **STEP1** (Power Up): V_{cc}, V_{ref} and V_{ccQ} are applied first followed later by application of V_{term} (the 1.25v CommandLink and DataLink termination supply), this being done to avoid latchup.

[0172] **STEP2** (Reset): The RESET* pin on each SLDRAM module is held low. This clears the SLDRAM module's internal synchronization indication and sets device ID=255.

[0173] **STEP3** (Synchronization): The controller begins transmitting CCLK and drives both DCLKs with continuous transitions, and sets its SO to '1'. On DQ[17:0], CA[9:0], and FLAG the controller transmits inverted and non-inverted versions of the 15 bit repeating pseudo-random SYNC sequence "111101011001000". The SLDRAM modules recognize this condition from the presence of 2 consecutive '1's on the FLAG line. Each SLDRAM module then determines for itself an optimum internal delay for CCLK and both DCLKs to optimally

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DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

DECEMBER 20, 2011

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REEL/FRAME: 027408/0642
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BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: ACQ 10-006

ASSIGNOR:
ION SYSTEMS, INC.

DOC DATE: 12/14/2011

ASSIGNEE:
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APPLICATION NUMBER: 08314535
PATENT NUMBER: 5447763
TITLE: SILICON ION EMITTER ELECTRODES

FILING DATE: 09/28/1994
ISSUE DATE: 09/05/1995

APPLICATION NUMBER: 08587256
PATENT NUMBER: 5719502
TITLE: ESD MONITORING CIRCUIT AND DEVICE

FILING DATE: 01/17/1996
ISSUE DATE: 02/17/1998

APPLICATION NUMBER: 08743987
PATENT NUMBER: 5768087
TITLE: METHOD AND APPARATUS FOR AUTOMATICALLY CLEANING IONIZING ELECTRODES

FILING DATE: 11/05/1996
ISSUE DATE: 06/16/1998

additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 30, 32, 35, 40, 42, and 50 are each patentable over the cited French-Chiu-Greschler combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 31, 36, 41, 43, 51, and 54 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French, Chiu, and Greschler, further in view of Hasha, et al. (U.S. Pat. No. 6,934,269). Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly teach the use of a sleep period between pings, and fails to explicitly teach the use of sleep states with ping messages. In an attempt to overcome the deficiencies of French, the Examiner relies on Hasha in an attempt to show various features.

Independent claims 1, 10, 11, and 20 are being amended above to distinguish over the French-Chiu-Greschler-Hasha combination. The French-Chiu-Greschler-Hasha combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to the automatic TFTP statement in the configuration file. Also,

the French-Chiu combination is improper based upon the reasons discussed above. Accordingly, claims 1, 10, 11, and 20 are each patentable over the French-Chiu-Greschler-Hasha combination.

Also, claims 31, 36, 41, 43, 51, and 54 are dependent on one of claims 1, 10, 11, and 20, and are each patentable over the French-Chiu-Greschler-Hasha combination for at least the same reasons that their respective base claims are each patentable over the same combination. Furthermore, each of the dependent claims 31, 36, 41, 43, 51, and 54 recites additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 31, 36, 41, 43, 51, and 54 are each patentable over the cited French-Chiu-Greschler-Hasha combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 34 and 39 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French, Chiu, and Goodman, in view of Fichtner. Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly teach the prevention of a download after a predetermined number of failed attempts. In an attempt to overcome the deficiencies of French, the

APPLICATION NUMBER: 08966638 FILING DATE: 11/10/1997
PATENT NUMBER: 5930105 ISSUE DATE: 07/27/1999
TITLE: METHOD AND APPARATUS FOR AIR IONIZATION

APPLICATION NUMBER: 09006773 FILING DATE: 01/14/1998
PATENT NUMBER: 6002573 ISSUE DATE: 12/14/1999
TITLE: SELF-BALANCING SHIELDED BIPOLAR IONIZER

APPLICATION NUMBER: 09270972 FILING DATE: 03/17/1999
PATENT NUMBER: 6310557 ISSUE DATE: 10/30/2001
TITLE: CIRCUIT AND DEVICE TO DETECT GROUNDING PROBLEMS IN ELECTRICAL SOLDERING IRONS

APPLICATION NUMBER: 09311775 FILING DATE: 05/13/1999
PATENT NUMBER: 6130815 ISSUE DATE: 10/10/2000
TITLE: APPARATUS AND METHOD FOR MONITORING OF AIR IONIZATION

APPLICATION NUMBER: 09519159 FILING DATE: 03/06/2000
PATENT NUMBER: 6330146 ISSUE DATE: 12/11/2001
TITLE: IONIZING BAR AND METHOD OF ITS FABRICATION

APPLICATION NUMBER: 09563776 FILING DATE: 05/02/2000
PATENT NUMBER: 6563110 ISSUE DATE: 05/13/2003
TITLE: IN-LINE GAS IONIZER AND METHOD

APPLICATION NUMBER: 09590193 FILING DATE: 06/08/2000
PATENT NUMBER: 6259591 ISSUE DATE: 07/10/2001
TITLE: APPARATUS AND METHOD FOR MONITORING OF AIR IONIZATION

APPLICATION NUMBER: 09698707 FILING DATE: 10/27/2000
PATENT NUMBER: 6791815 ISSUE DATE: 09/14/2004
TITLE: DYNAMIC AIR IONIZER AND METHOD

APPLICATION NUMBER: 09844580 FILING DATE: 04/26/2001
PATENT NUMBER: 6515458 ISSUE DATE: 02/04/2003
TITLE: PULSE OSCILLATOR AND VOLTAGE LEVEL CONVERTER

APPLICATION NUMBER: 09853081 FILING DATE: 05/09/2001
PATENT NUMBER: 6693788 ISSUE DATE: 02/17/2004
TITLE: AIR IONIZER WITH STATIC BALANCE CONTROL

APPLICATION NUMBER: 09948269 FILING DATE: 09/06/2001
PATENT NUMBER: 6674630 ISSUE DATE: 01/06/2004
TITLE: SIMULTANEOUS NEUTRALIZATION AND MONITORING OF CHARGE ON MOVING MATERIAL

APPLICATION NUMBER: 10197085 FILING DATE: 07/16/2002
PATENT NUMBER: 6719142 ISSUE DATE: 04/13/2004
TITLE: APPARATUS AND METHOD FOR MEASURING STATIC CHARGE ON WAFERS, DISKS, SUBSTRATES, MASKS, AND FLAT PANEL DISPLAYS

APPLICATION NUMBER: 10238400 FILING DATE: 09/09/2002
PATENT NUMBER: 6850403 ISSUE DATE: 02/01/2005
TITLE: AIR IONIZER AND METHOD

APPLICATION NUMBER: 10269426 FILING DATE: 10/11/2002
PATENT NUMBER: 6781205 ISSUE DATE: 08/24/2004
TITLE: ELECTROSTATIC CHARGE MEASUREMENT ON SEMICONDUCTOR WAFERS

Examiner relies on Fichtner in an attempt to show various features.

Independent claim 1 is being amended above to distinguish over the French-Chiu-Goodman-Fichtner combination. The French-Chiu-Goodman-Fichtner combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to the automatic TFTP statement in the configuration file. Also, the French-Chiu combination is improper based upon the reasons discussed above. Accordingly, claim 1 is patentable over the French-Chiu-Goodman-Fichtner combination.

Also, claims 34 and 39 are dependent on claim 1 and are each patentable over the French-Chiu-Goodman-Fichtner combination for at least the same reasons that their respective base claim is each patentable over the same combination. Furthermore, each of the dependent claims 34 and 39 recites additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 34 and 39 are each patentable over the cited French-Chiu-Goodman-Fichtner combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 44, 46, 48, and 52 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French, Chiu, and Goodman, further in view of Greschler. Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly disclose preventing downloading if ping messages failed after a predetermined number of transmissions. In an attempt to overcome the deficiencies of French, the Examiner relies on Greschler in an attempt to show various features.

Independent claims 12, 18, 19, and 25 are being amended above to distinguish over the French-Chiu-Goodman-Greschler combination. The French-Chiu-Goodman-Greschler combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to a TFTP statement in the configuration file. Also, the French-Chiu combination is improper based upon the reasons discussed above. Accordingly, claims 12, 18, 19, and 25 are each patentable over the French-Chiu-Goodman-Greschler combination.

Also, claims 44, 46, 48, and 52 are dependent on one of claims 12, 18, 19, and 25 and are each patentable over the French-Chiu-Goodman-Greschler combination for at least the same reasons that their respective base claim is each patentable over the same combination. Furthermore, each of the dependent claims 44, 46, 48, and 52 recites additional features in combination with the features recited in their

APPLICATION NUMBER: 10428363 FILING DATE: 05/01/2003
PATENT NUMBER: 6807044 ISSUE DATE: 10/19/2004
TITLE: CORONA DISCHARGE APPARATUS AND METHOD OF MANUFACTURE

APPLICATION NUMBER: 10459865 FILING DATE: 06/11/2003
PATENT NUMBER: 7339778 ISSUE DATE: 03/04/2008
TITLE: CORONA DISCHARGE STATIC NEUTRALIZING APPARATUS

APPLICATION NUMBER: 10713330 FILING DATE: 11/17/2003
PATENT NUMBER: 7042694 ISSUE DATE: 05/09/2006
TITLE: SELF-BALANCING SHIELDED BIPOLAR IONIZER WITH AIR ASSIST

APPLICATION NUMBER: 10821773 FILING DATE: 04/08/2004
PATENT NUMBER: 7057130 ISSUE DATE: 06/06/2006
TITLE: ION GENERATION METHOD AND APPARATUS

APPLICATION NUMBER: 10956189 FILING DATE: 09/30/2004
PATENT NUMBER: 7212393 ISSUE DATE: 05/01/2007
TITLE: AIR IONIZATION MODULE AND METHOD

APPLICATION NUMBER: 11037408 FILING DATE: 01/18/2005
PATENT NUMBER: 7295418 ISSUE DATE: 11/13/2007
TITLE: COLLIMATED IONIZER AND METHOD

APPLICATION NUMBER: 11136754 FILING DATE: 05/25/2005
PATENT NUMBER: 7479615 ISSUE DATE: 01/20/2009
TITLE: WIDE RANGE STATIC NEUTRALIZER AND METHOD

APPLICATION NUMBER: 11353760 FILING DATE: 02/13/2006
PATENT NUMBER: 7483255 ISSUE DATE: 01/27/2009
TITLE: IONIZING ELECTRODE STRUCTURE AND APPARATUS

APPLICATION NUMBER: 11398446 FILING DATE: 04/05/2006
PATENT NUMBER: 8063336 ISSUE DATE: 11/22/2011
TITLE: MULTI-FREQUENCY STATIC NEUTRALIZATION

APPLICATION NUMBER: 11539610 FILING DATE: 10/06/2006
PATENT NUMBER: 7697258 ISSUE DATE: 04/13/2010
TITLE: AIR ASSIST FOR AC IONIZERS

APPLICATION NUMBER: 11623316 FILING DATE: 01/15/2007
PATENT NUMBER: 7679026 ISSUE DATE: 03/16/2010
TITLE: MULTI-FREQUENCY STATIC NEUTRALIZATION OF MOVING CHARGED OBJECTS

APPLICATION NUMBER: 11767295 FILING DATE: 06/22/2007
PATENT NUMBER: 7889477 ISSUE DATE: 02/15/2011
TITLE: HIGH VOLTAGE POWER SUPPLY FOR STATIC NEUTRALIZERS

APPLICATION NUMBER: 11998767 FILING DATE: 11/30/2007
PATENT NUMBER: 7729101 ISSUE DATE: 06/01/2010
TITLE: METHOD AND APPARATUS FOR MONITORING AND CONTROLLING IONIZING BLOWERS

APPLICATION NUMBER: 12049350 FILING DATE: 03/16/2008
PATENT NUMBER: 8009405 ISSUE DATE: 08/30/2011
TITLE: LOW MAINTENANCE AC GAS FLOW DRIVEN STATIC NEUTRALIZER AND METHOD

respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 44, 46, 48, and 52 are each patentable over the cited French-Chiu-Goodman-Greschler combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

In the office action, claims 45, 47, 49, and 53 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over French, Chiu, Goodman, and Greschler further in view of Hasha. Applicant respectfully traverses the rejection.

The Examiner correctly admits in the office action that French fails to explicitly teach the use of a sleep state with ping transactions. In an attempt to overcome the deficiencies of French, the Examiner relies on Hasha in an attempt to show various features.

Independent claims 12, 18, 19, and 25 are being amended above to distinguish over the French-Chiu-Goodman-Greschler-Hasha combination. The French-Chiu-Goodman-Greschler-Hasha combination does not disclose and does not suggest a system or method including the act of invoking, by the device, a TFTP firmware download function for automatically downloading software images from the target server, in response to a TFTP statement in the configuration file. Also, the French-Chiu combination is improper based upon the reasons discussed above.

Accordingly, claims 12, 18, 19, and 25 are each patentable over the French-Chiu-Goodman-Greschler-Hasha combination.

Also, claims 45, 47, 49, and 53 are dependent on one of claims 12, 18, 19, and 25 and are each patentable over the French-Chiu-Goodman-Greschler-Hasha combination for at least the same reasons that their respective base claim is each patentable over the same combination. Furthermore, each of the dependent claims 45, 47, 49, and 53 recites additional features in combination with the features recited in their respective base claims, where the combination are not disclosed or are not suggested by the cited references. Accordingly, dependent claims 45, 47, 49, and 53 are each patentable over the cited French-Chiu-Goodman-Greschler-Hasha combination, considered singly or in combination.

For the above reasons, Applicant requests reconsideration and withdrawal of the rejection under 35 U.S.C. §103.

Applicant respectfully requests allowance of all pending claims.

If the undersigned attorney has overlooked a teaching in the cited reference that is relevant to the allowability of the claims, the Examiner is respectfully requested to specifically point out where such teachings may be found.

APPLICATION NUMBER: 12075967 FILING DATE: 03/14/2008
PATENT NUMBER: 7813102 ISSUE DATE: 10/12/2010
TITLE: PREVENTION OF EMITTER CONTAMINATION WITH ELECTRONIC WAVEFORMS

APPLICATION NUMBER: 12451445 FILING DATE: 11/13/2009
PATENT NUMBER: ISSUE DATE:
TITLE: ELECTROSTATICALLY APPLYING A LABEL TO A MOLD CAVITY

APPLICATION NUMBER: 12456526 FILING DATE: 06/18/2009
PATENT NUMBER: ISSUE DATE:
TITLE: SILICON EMITTERS FOR IONIZERS WITH HIGH FREQUENCY WAVEFORMS

APPLICATION NUMBER: 12799369 FILING DATE: 04/23/2010
PATENT NUMBER: 8048200 ISSUE DATE: 11/01/2011
TITLE: CLEAN CORONA GAS IONIZATION FOR STATIC CHARGE NEUTRALIZATION

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

CONTACT INFORMATION

If the Examiner has any questions or needs any additional information, the Examiner is invited to telephone the undersigned attorney at (805) 681-5078.

Date:_____

Respectfully submitted,
Arthur E. Harvey IV

_____
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