

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3627025

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY INTEREST	
CONVEYING PARTY DATA		
Name		Execution Date
NETLIST, INC.		11/18/2015
RECEIVING PARTY DATA		
Name:	SVIC NO. 28 NEW TECHNOLOGY BUSINESS INVESTMENT L.L.P.	
Street Address:	29F, SAMSUNG ELECTRONICS BLDG., 1320-10, SEOCHO 2-DONG	
City:	SEOCHO-GU	
State/Country:	KOREA, REPUBLIC OF	
Postal Code:	137-857	
PROPERTY NUMBERS Total: 78		
Property Type	Number	
Patent Number:	8301833	
Patent Number:	8516187	
Patent Number:	8671243	
Patent Number:	8874831	
Patent Number:	8904098	
Patent Number:	8677060	
Patent Number:	8904099	
Patent Number:	8880791	
Patent Number:	9158684	
Patent Number:	6751113	
Patent Number:	6873534	
Patent Number:	6930903	
Patent Number:	6930900	
Patent Number:	7286436	
Patent Number:	7289386	
Patent Number:	7619912	
Patent Number:	7864627	
Patent Number:	8081535	
Patent Number:	7532537	
Patent Number:	7636274	

Netlist EX2006
 Samsung v. Netlist
 IPR2025-01431

Property Type	Number
Patent Number:	7881150
Patent Number:	7916574
Patent Number:	8072837
Patent Number:	8081537
Patent Number:	8756364
Patent Number:	8081536
Patent Number:	8516188
Patent Number:	9037774
Patent Number:	7254036
Patent Number:	7375970
Patent Number:	7630202
Patent Number:	8345427
Patent Number:	8971045
Patent Number:	7839645
Patent Number:	7442050
Patent Number:	7811097
Patent Number:	8033836
Patent Number:	8287291
Patent Number:	8864500
Patent Number:	7619893
Patent Number:	7839643
Patent Number:	8488325
Patent Number:	8154901
Patent Number:	8782350
Patent Number:	9037809
Patent Number:	8417870
Patent Number:	8516185
Patent Number:	8018723
Patent Number:	8705239
Patent Number:	8264903
Patent Number:	8599634
Patent Number:	8489837
Patent Number:	8787060
Patent Number:	9128632
Application Number:	14214652
Application Number:	14302292
Application Number:	62102996
Application Number:	14489281

PATENT

REEL: 037150 FRAME: 0898

Property Type	Number
Application Number:	14489332
Application Number:	14800629
Application Number:	14840865
Application Number:	14715486
Application Number:	14715491
Application Number:	13970606
Application Number:	13942721
Application Number:	14337168
Application Number:	13921159
Application Number:	13964103
Application Number:	14445035
Application Number:	14706873
Application Number:	14834395
Application Number:	14536588
Application Number:	62067411
Application Number:	62150272
PCT Number:	US2012048750
PCT Number:	US2014030050
PCT Number:	US2014048517
PCT Number:	US2014064698

CORRESPONDENCE DATA

Fax Number: (858)638-5130

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ATTORNEY DOCKET NUMBER:	350916-9
NAME OF SUBMITTER:	TROY ZANDER
SIGNATURE:	/s/ Troy Zander
DATE SIGNED:	11/20/2015

Total Attachments: 12

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT, dated as of November 18, 2015 (the “**Agreement**”), between **SVIC NO. 28 NEW TECHNOLOGY BUSINESS INVESTMENT L.L.P.**, a Korean limited liability partnership (“**Secured Party**”), and **NETLIST, INC.**, a Delaware corporation (“**Grantor**”), is made with reference to the Security Agreement, dated as of the date hereof, by and between Grantor and Secured Party (as amended from time to time, the “**Security Agreement**”). Terms defined in the Security Agreement have the same meaning when used in this Agreement.

For good and valuable consideration, receipt of which is hereby acknowledged, Grantor hereby covenants and agrees as follows:

To secure the Secured Obligations under the Security Agreement, Grantor grants to Secured Party a security interest in all right, title, and interest of Grantor in any of the following, whether now existing or hereafter acquired or created in any and all of the following property (collectively, the “**Intellectual Property Collateral**”):

(a) copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held (collectively, the “**Copyrights**”), including the Copyrights described in **Exhibit A**;

(b) trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks (collectively, the “**Trademarks**”), including the Trademarks described in **Exhibit B**;

(c) patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same (collectively, the “**Patents**”), including the Patents described in **Exhibit C**;

(d) trade secrets, and any and all intellectual property rights in computer software and computer software products;

(e) claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(f) licenses or other rights to use any of the Copyrights, Patents or Trademarks and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(g) amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents; and

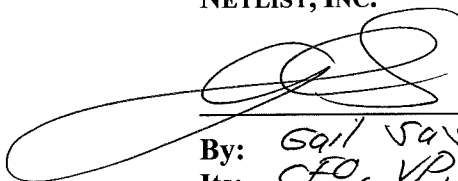
(h) proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

The rights and remedies of Secured Party with respect to the security interests granted hereunder are in addition to those set forth in the Security Agreement, and those which are now or hereafter available to Secured Party as a matter of law or equity. Each right, power and remedy of Secured Party provided for herein or in the Security Agreement, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein, and the exercise by Secured Party of any one or more of such rights, powers or remedies does not preclude the simultaneous or later exercise by Secured Party of any other rights, powers or remedies.

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IN WITNESS WHEREOF, the undersigned have executed, or have caused to be executed, this Agreement on the date first written above.

NETLIST, INC.


By: *Gail Sasaki*
Its: *CFO, VP, Secretary*

Signature Page to Intellectual Property Security Agreement

IN WITNESS WHEREOF, the undersigned have executed, or have caused to be executed,
this Agreement on the date first written above.

SVIC No. 28 NEW TECHNOLOGY
BUSINESS INVESTMENT L.L.P.



By: Seon Jong Lee
Its: Chief Executive Officer

Signature Page to Intellectual Property Security Agreement

**EXHIBIT A
COPYRIGHTS**

	Description	Registration/ Application Number	Registration/ Application Date
None			

**EXHIBIT B
TRADEMARKS**

Country	Mark	App. No. Filing Date	Reg. No. Reg. Date
United States		78/399520 4/9/2004	3502943 9/16/2008
United States		77/514866 7/3/2008	3624502 5/19/2009
United States	EXPRESSVAULT	85/219867 01/18/2011	4,214,686 09/25/2012
United States	HYPERCLOUD	85/171838 11/08/2010	4120406 04/03/2012
United States	HYPERSTREAM	85/177757 11/16/2010	4,018,527 08/30/2011
United States	HYPERVAULT	86/332917 07/09/2014	
United States	NETLIST	78/399502 4/9/2004	3496959 9/2/2008
United States	NETLIST	77/517411 7/8/2008	3624509 5/19/2009
United States	NETVAULT	77/872464 11/13/2009	
United States	NVVAULT	85/237177 02/08/2011	4214739 09/25/2012
China		7132513 12/25/2008	7132513 10/14/2010
China	NETLIST	7132512	7132512

Exhibit B-1

Country	Mark	App. No. Filing Date	Reg. No. Reg. Date
		12/25/2008	10/14/2010
China	HYPERCLOUD	9369731 04/21/2011	9369731 01/14/2014
European Community		7491442 12/24/2008	7491442 7/24/2009
European Community	NETLIST	7491558 12/24/2008	7491558 7/25/2009
European Community	HYPERCLOUD	009911025 04/20/2011	009911025 09/26/2011
Japan		2008-103715 12/25/2008	5284818 12/04/2009
Japan	NETLIST	2008-103716 12/25/2008	5284819 12/04/2009
Japan	HYPERCLOUD	2011-029237 04/26/2011	5488475 04/20/2012
International Registration (European Community, China and Japan)	HYPERVAULT	1247948 01/07/2015	

Exhibit B-2

EXHIBIT C PATENTS

Title	Patent/Application No.	Issue/Filing Date
NON-VOLATILE MEMORY MODULE	8301833	10/30/2012
Data Transfer Scheme for Non-Volatile Memory Update	8516187	8/20/2013
ISOLATION SWITCHING FOR BACKUP MEMORY	8671243	3/11/2014
Flash DRAM Hybrid Memory Module	8874831	10/28/2014
Flash DRAM Hybrid Memory Module	PCT/US12/48750	7/28/2012
REDUNDANT BACKUP USING NON-VOLATILE MEMORY	8904098	12/2/2014
ISOLATION SWITCHING FOR BACKUP OF REGISTERED MEMORY	8677060	3/18/2014
FLASH DRAM Hybrid Memory Module (China)	201280047758.X	7/28/2011
Flash DRAM Hybrid Memory Module (Europe)	12817751.6	7/28/2011
Flash DRAM Hybrid Memory Module (Korea)	2014-7005608	7/28/2011
Isolation Switching for Backup Memory	8904099	12/2/2014
Isolation Switching for Backup of Registered Memory	8880791	11/4/2014
HYBRID MEMORY SYSTEM WITH CONFIGURABLE ERROR THRESHOLD AND FAILURE ANALYSIS CAPABILITY	14/214,652	3/14/2014
MEMORY SYSTEM WITH CONFIGURABLE ERROR THRESHOLDS AND FAILURE ANALYSIS CAPABILITY	PCT/US2014/030050	3/15/2014
MEMORY SYSTEM WITH CONFIGURABLE ERROR THRESHOLDS AND FAILURE ANALYSIS CAPABILITY (Taiwan)	103109905	3/17/2014
Non-Volatile Memory Storage for Multi-Channel Memory System	14/302,292	6/11/2014
System And Method For Determining Charge Of A Secondary Power Supply For A Memory	62/102,996	1/13/2015
Flash-DRAM Hybrid Memory Module	9,158,684	9/17/2014
Redundant Backup Using Non-Volatile Memory	14/489,281	9/17/2014

Exhibit C-1

Title	Patent/Application No.	Issue/Filing Date
Isolation Switching For Backup Memory	14/489,332	9/17/2014
System and Method for Storing Manufacturing Information and Lifetime Usage History of a Power Module for a Memory System	14/800,629	7/15/2015
Flash-DRAM Hybrid Memory Module	14/840,865	8/31/2015
MEMORY SYSTEM WITH CONFIGURABLE ERROR THRESHOLDS AND FAILURE ANALYSIS CAPABILITY (Europe)	14765442.0	3/15/2014
MEMORY SYSTEM WITH CONFIGURABLE ERROR THRESHOLDS AND FAILURE ANALYSIS CAPABILITY (Korea)	2015-7029205	3/15/2014
ARRANGEMENT OF INTEGRATED CIRCUITS IN A MEMORY MODULE	6751113	6/15/2004
ARRANGEMENT OF INTEGRATED CIRCUITS IN A MEMORY MODULE	6873534	3/29/2005
ARRANGEMENT OF INTEGRATED CIRCUITS IN A MEMORY MODULE	6930903	8/16/2005
ARRANGEMENT OF INTEGRATED CIRCUITS IN A MEMORY MODULE	6930900	8/16/2005
HIGH-DENSITY MEMORY MODULE UTILIZING LOW-DENSITY MEMORY COMPONENTS	7286436	10/23/2007
MEMORY MODULE DECODER	7289386	10/30/2007
MEMORY MODULE DECODER	7619912	11/17/2009
MEMORY MODULE DECODER	7864627	1/4/2011
CIRCUIT FOR PROVIDING CHIP-SELECT SIGNALS TO A PLURALITY OF RANKS OF A DDR MEMORY MODULE	8081535	12/20/2011
MEMORY MODULE WITH A CIRCUIT PROVIDING LOAD ISOLATION AND MEMORY DOMAIN TRANSLATION	7532537	5/12/2009
MEMORY MODULE WITH A CIRCUIT PROVIDING LOAD ISOLATION AND MEMORY DOMAIN TRANSLATION	7636274	12/22/2009
CIRCUIT PROVIDING LOAD ISOLATION AND MEMORY DOMAIN TRANSLATION FOR MEMORY MODULE	7881150	2/1/2011
CIRCUIT PROVIDING LOAD ISOLATION AND MEMORY DOMAIN TRANSLATION FOR MEMORY MODULE	7916574	3/29/2011
CIRCUIT PROVIDING LOAD ISOLATION AND MEMORY DOMAIN TRANSLATION FOR	8072837	12/6/2011

Exhibit C-2

Title	Patent/Application No.	Issue/Filing Date
MEMORY MODULE		
CIRCUIT FOR PROVIDING CHIP-SELECT SIGNALS TO A PLURALITY OF RANKS OF A DDR MEMORY MODULE	8081537	12/20/2011
A MULTIRANK DDR MEMORY MODUAL WITH LOAD REDUCTION	8756364	6/17/2014
CIRCUIT FOR MEMORY MODULE	8081536	12/20/2011
CIRCUIT FOR MEMORY MODULE	8516188	8/20/2013
MEMORY MODULE WITH LOAD REDUCING CIRCUIT AND METHOD OF OPERATION	9037774	5/19/2015
MEMORY MODULE WITH DATA BUFFERING	14/715,486	5/18/2015
HIGH DENSITY MEMORY MODULE USING STACKED PRINTED CIRCUIT BOARDS	7254036	8/7/2007
HIGH DENSITY MEMORY MODULE USING STACKED PRINTED CIRCUIT BOARDS	7375970	5/20/2008
HIGH DENSITY MODULE HAVING AT LEAST TWO SUBSTRATES AND AT LEAST ONE THERMALLY CONDUCTIVE LAYER THEREBETWEEN	7630202	12/8/2009
MODULE HAVING AT LEAST TWO SURFACES AND AT LEAST ONE THERMALLY CONDUCTIVE LAYER THEREBETWEEN	8345427	1/1/2013
MODULE HAVING AT LEAST ONE THERMALLY CONDUCTIVE LAYER BETWEEN PRINTED CIRCUIT BOARDS	8971045	3/3/2015
MODULE HAVING AT LEAST TWO SURFACES AND AT LEAST ONE THERMALLY CONDUCTIVE LAYER THEREBETWEEN	7839645	11/23/2010
CIRCUIT CARD WITH FLEXIBLE CONNECTION FOR MEMORY MODULE WITH HEAT SPREADER	7442050	10/28/2008
CIRCUIT WITH FLEXIBLE PORTION	7811097	10/12/2010
CIRCUIT WITH FLEXIBLE PORTION	8033836	10/11/2011
CIRCUIT WITH FLEXIBLE PORTION	8287291	10/16/2012
CIRCUIT WITH FLEXIBLE PORTION	8864500	10/21/2014
HEAT SPREADER FOR ELECTRONIC MODULES	7619893	11/17/2009
HEAT SPREADER FOR MEMORY MODULES	7839643	11/23/2010

Exhibit C-3

Title	Patent/Application No.	Issue/Filing Date
MEMORY MODULE HAVING THERMAL CONDUITS	8488325	7/16/2013
CIRCUIT PROVIDING LOAD ISOLATION AND NOISE REDUCTION	8154901	4/10/2012
CIRCUIT PROVIDING LOAD ISOLATION AND NOISE REDUCTION	8782350	7/15/2014
Memory Module With Circuit Providing Load Isolation and Noise Reduction	9037809	5/19/2015
Circuit Providing Load Isolation and Noise Reduction	14/715,491	5/18/2015
MEMORY BOARD WITH SELF-TESTING CAPABILITY	8001434	8/16/2011
MEMORY BOARD WITH SELF-TESTING CAPABILITY	8359501	1/22/2012
MEMORY BOARD WITH SELF-TESTING CAPABILITY	8689064	4/1/2014
Memory Subsystem and Method of Operation	14/229,844	3/29/2014
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	8417870	4/9/2013
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	8516185	8/20/2013
MEMORY MODULE WITH DISTRIBUTED BUFFER CIRCUITS AND METHOD OF OPERATION	13/970,606	8/20/2013
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	1428740	2/23/2014
Memory Module and Operating Method Thereof	1446167	7/21/2014
HEAT DISSIPATION FOR ELECTRONIC MODULES	8018723	9/13/2011
HEAT DISSIPATION FOR ELECTRONIC MODULES	8705239	4/22/2014
SYSTEMS AND METHODS FOR REFRESHING A MEMORY MODULE	8264903	9/11/2012
SYSTEMS AND METHODS FOR REFRESHING A MEMORY MODULE	8599634	12/3/2013
SYSTEMS AND METHODS FOR HANDSHAKING WITH A MEMORY MODULE	8489837	7/16/2013
SYSTEMS AND METHODS FOR HANDSHAKING WITH A MEMORY MODULE	13/942,721	7/16/2013
ARCHITECTURE FOR MEMORY MODULE WITH PACKAGES OF THREE-DIMENSIONAL STACKED (3DS) MEMORY CHIPS	8787060	7/22/2014

Exhibit C-4

Title	Patent/Application No.	Issue/Filing Date
MEMORY PACKAGE WITH OPTIMIZED DRIVER LOAD AND METHOD OF OPERATION	14/337,168	7/21/2014
MEMORY MODULE WITH FLEXIBLE ELECTRICAL CONDUITS AND ELECTRICAL CONNECTORS EXTENDING THROUGH HEAT SPREADER	13/921,159	6/18/2013
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	ZL 201080039043.0	9/30/2015
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	201510483986.7	8/7/2015
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	10730021.2	2/7/2012
SYSTEM AND METHOD UTILIZING DISTRIBUTED BYTE-WISE BUFFERS ON A MEMORY MODULE	2012-7004038	2/15/2012
MEMORY MODULE WITH DISTRIBUTED DATA BUFFERS AND METHOD OF OPERATION	9128632	9/8/2015
A MULTI-RANK MEMORY MODULE	13/964,103	8/11/2013
Memory Module with Local Synchronization	PCT/US2014/048517	7/28/2014
Memory Module with Local Synchronization	14/445,035	7/28/2014
MEMORY MODULE AND SYSTEM AND METHOD OF OPERATION	14/706,873	5/7/2015
Method and Apparatus for Presearching Stored Data	14/834,395	8/24/2015
Hybrid Memory Module and System and Method of Operating the Same	PCT/US2014/064698	11/7/2014
Hybrid Memory Module and System and Method of Operating the Same	14/536,588	11/7/2014
Hybrid Mobile Memory for Random Access	62/067,411	10/22/2014
Hybrid Memory Module for Computer System	62/150,272	4/20/2015

Exhibit C-5