PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT4810641

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICROSEMI SOLUTIONS (US) INC.	07/21/2017

RECEIVING PARTY DATA

Name:	IP GEM GROUP, LLC
Street Address:	19900 MACARTHUR BOULEVARD
Internal Address:	SUITE 650
City:	IRVINE
State/Country:	CALIFORNIA
Postal Code:	92612

PROPERTY NUMBERS Total: 3

Property Type	Number
Application Number:	15655518
Application Number:	15655639
Application Number:	15658151

CORRESPONDENCE DATA

Fax Number: (408)643-6913

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: 6132707441
Email: skahn@microsemi.com
Correspondent Name: MICROSEMI CORPORATION
Address Line 1: 3870 NORTH FIRST STREET
Address Line 2: ATT: JANET DRAKES - RECORDS MANAGER
Address Line 4: SAN JOSE, CALIFORNIA 95134

ATTORNEY DOCKET NUMBER:	ESC-1124A/B ESC-1127
NAME OF SUBMITTER:	SIMON KAHN - REG NO 48249
SIGNATURE:	/Simon Kahn/
DATE SIGNED:	02/06/2018

Total Attachments: 7
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ASSIGNMENT OF PATENTS AND PATENT APPLICATIONS

THIS ASSIGNMENT OF PATENTS AND PATENT APPLICATIONS dated as of July 21, 2017 (this "Assignment") by Microsemi Solutions (US), Inc. ("Assignor"), a Delaware corporation, having a place of business at 1380 Bordeaux Drive, Sunnyvale, CA 94089, in favor of IP Gem Group, LLC, a Delaware limited liability company ("Assignee"), having a place of business at 19900 MacArthur Boulevard Suite 650, Irvine, California 92612. Capitalized terms used but not otherwise defined herein shall have the meanings ascribed thereto in the APA (as defined below).

WHEREAS, Assignor is the owner of certain patents and patent applications in the United States Patent and Trademark Office, as identified in Exhibit 1 attached hereto (the "Patents");

WHEREAS, it is the intention of Assignor and Assignee that Assignee own the entire right, title and interest in and to the Patents;

WHEREAS, Assignor and Assignee have entered into a certain transfer agreement, dated July 21, 2017 (the "Transfer Agreement"), which provides for the transfer and assignment of the Patents to Assignee; and

WHEREAS the Patents are currently held by Assignor and are to be transferred and assigned to Assignee.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby mutually acknowledged, and pursuant to the terms of the Transfer Agreement, Assignor agrees to and does hereby sell, assign, transfer, set over, grant, and convey unto Assignee, its successors and assigns, the entire and exclusive right, title and interest in and to the Patents, including all inventions in the United States described therein, and the applications and patents issuing from applications listed therein in the United States, and any United States applications and patents claiming priority to any of those listed therein, and any United States applications and patents from which those listed therein may claim priority to, and any other continuations, continuations-in-part, divisionals, reissues, extensions, reexamination certificates of the Patents or based thereon, together with all rights of enforcement and choses in action related thereto, including, without limitation, rights to sue and claims for damages by reason of past, present or future infringement of any of the Patents, with the right to sue for, settle, recover, and collect the same, and any and all other corresponding rights that have been, or hereafter may be, secured with respect to the Patents. Assignor further agrees to execute and has executed all documents, instruments and papers and to perform all acts, without any further consideration, as reasonably requested by Assignee, its successors and assigns, to perfect in Assignee, its successors and assigns, the foregoing rights, title and interests, including the execution of any related patent application documents.

Assignor hereby authorizes and requests the Director of the United States Patent and Trademark Office to issue the United States Letters Patents resulting from all the United States applications in the Patents to Assignee, its successors and assigns.

This Assignment is subject in all respects to the terms and conditions of the Transfer Agreement, which are incorporated herein by reference. This Assignment is given to further evidence (and give immediate effect to) the transfers and assignments contemplated by the Transfer Agreement upon the terms and conditions specified therein.

This Assignment shall be governed by, and construed in accordance with the laws of the State of Delaware, United States, without regard to conflicts of law principles.

This Assignment may be executed in two or more counterparts, each of which will be deemed to be an original copy of this Assignment and all of which, when taken together, will be deemed to constitute one and the same agreement. Any signed counterpart of this Assignment may be delivered by facsimile or other form of electronic transmission (e.g., pdf), with the same legal force and effect as delivery of an originally signed agreement.

[*Signature Pages Follow*]

IN WITNESS WHEREOF, Assignor has executed this Assignment as an instrument under seal effective as of this 21st day of July, 2017.

MICROSEMI SOLUTIONS (US), INC.

By: _____
Name: David Shorey
Title: SVP

STATE OF _____

COUNTY OF _____

On this the _____ day of _____, _____, before me appeared _____, the person who signed this instrument, who acknowledged that he signed such instrument as his free act and deed.

_____
Notary Public

My commission expires: _____

IN WITNESS WHEREOF, Assignee has executed this Assignment as an instrument under seal effective as of this _____ day of _____, 2017.

IP GEM GROUP LLC

By: _____
Name:
Title:

ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California
County of Orange)

On 07/21/17 before me, Terri Judson, Notary Public
(insert name and title of the officer)

personally appeared David Goren,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

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

WITNESS my hand and official seal.

TERRI JUDSON
Notary Public – California
Orange County
Commission # 2193485
My Comm. Expires Apr 24, 2021

Signature _____ (Seal)

EXHIBIT 1

Patents and Patent Applications

US PATENT NUMBER	ISSUE DATE	TITLE	DATE FILED	APPLICATION NUMBER
9224479	Dec 29, 2015	Threshold Voltage Adjustment in Solid State Memory	Dec 18, 2013	14132229
9235488	Jan 12, 2016	System and Method for Random Noise Generation	Jan 30, 2014	14168222
8397144	Mar 12, 2013	BCH Data Correction System and Method	Oct 27, 2010	12913716
9325347	Apr 26, 2016	Adaptive Load processing for LDPC decoding	Feb 21, 2014	14186786
9467172	Oct 11, 2016	Forward Error Correction Decoder and Method Therefor	Jan 8, 2016	14991323
		Memory System with High Speed Non-Volatile Memory Backup Using Pre-Aged Flash Memory Devices	Jul 2, 2014	14322327
9602133	Mar 21, 2017	System and Method for Boost Floor Mitigation	Jan 27, 2015	14606579
		NONVOLATILE MEMORY SYSTEM WITH ERASE SUSPEND CIRCUIT AND METHOD FOR ERASE SUSPEND MANAGEMENT	Dec 6, 2016	15370391
		Method of Configuring Memory Cells in a Solid State Drive and Controller Therefor	Dec 18, 2015	14974803
		Nonvolatile Memory System with Read Circuit for Performing Reads using Threshold Voltage Shift Read Instruction	Jul 29, 2015	14812891
		Nonvolatile Memory with Shared Algorithm Mode	Jan 2, 2017	15396721
9305661	Apr 5, 2016	Nonvolatile Memory System that uses Programming Time to Reduce Bit Errors	Sep 3, 2014	14475757
9417804	Aug 16, 2016	System and Method for Memory Block Pool Wear Leveling	Jul 7, 2014	14325212
9590656	Mar 7, 2017	System and Method for Higher Quality Log Likelihood Ratios in LDPC Decoding	Mar 13, 2014	14210067
9450610	Sep 20, 2016	High Quality Log Likelihood Ratios Determined using two-index look-up table	Dec 1, 2014	14557214
		Hardware Based XIP Exit Sequence to Enable XIP Mode Operation on SPI Boot Interface	Sep 22, 2015	14861451
		NONVOLATILE MEMORY SYSTEM WITH PROGRAM STEP MANAGER AND METHOD FOR PROGRAM STEP MANAGEMENT	Feb 11, 2016	15042125
		NONVOLATILE MEMORY SYSTEM WITH BACKGROUND REFERENCE POSITIONING AND LOCAL REFERENCE POSITIONING	Aug 22, 2016	62378145
		METHOD AND APPARATUS WITH BACKGROUND REFERENCE POSITIONING AND LOCAL REFERENCE POSITIONING	Jul 28, 2016	62367789
		AUTO-LEARNING LOG LIKELIHOOD RATIO	Apr 21, 2017	62488215
8707122	Apr 22, 2014	Nonvolatile memory controller with two-stage error correction technique for enhanced reliability	Feb 8, 2011	13023336
8694855	Apr 8, 2014	Flash Management Algorithms for Improving Read Stress Endurance	Nov 2, 2011	13287443
8621318	Dec 31, 2013	Nonvolatile memory controller with error detection for concatenated error correction codes	Mar 30, 2012	13435572

8656257	Feb 18, 2014	Nonvolatile memory controller with concatenated error correction codes	Mar 29, 2012	13434770
8588228	Nov 19, 2013	Nonvolatile memory controller with host controller interface for retrieving and dispatching nonvolatile memory commands in a distributed manner	Mar 18, 2011	13052008
8554968	Oct 8, 2013	Interrupt Technique for a NonVolatile Memory Controller	Mar 21, 2011	13052388
8601346	Dec 3, 2013	System And Method For Generating Parity Data In A Nonvolatile Memory Controller By Using A Distributed Processing Technique	Mar 21, 2011	13052835
8656071	Feb 18, 2014	System And Method For Routing A Data Message	May 13, 2011	13107265
9235467	Jan 12, 2016	System and Method with Reference Voltage Partitioning For Low Density Parity Check Decoding	Jan 27, 2014	14165135
9170876	Oct 27, 2015	Method and System for Decoding Encoded Data Stored in a Non-Volatile Memory	Dec 31, 2013	14144857
9252563	Feb 2, 2016	METHOD AND APPARATUS FOR DRIVING A LASER DIODE	Mar 6, 2013	13787351
9627848	Apr 18, 2017	METHOD AND APPARATUS FOR DRIVING A LASER DIODE	Jan 6, 2016	14989276