### 502484694 09/05/2013

### PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
Paul Gwin	08/22/2013
Harish Jagadish	08/03/2013
Narasimha Shastri	07/26/2013
Madhukar Patil	08/23/2013

#### **RECEIVING PARTY DATA**

Name:	Intel Corporation
Street Address:	2200 Mission College Blvd.
City:	Santa Clara
State/Country:	CALIFORNIA
Postal Code:	95054

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	13937501

#### **CORRESPONDENCE DATA**

**Fax Number**: 6123328352

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

Email: inteldocs@cpaglobal.com

Correspondent Name: International IP Law Group, P.L.L.C.

Address Line 1: c/o CPA Global
Address Line 2: PO Box 52050

Address Line 4: Minneapolis, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	P56204
NAME OF SUBMITTER:	Melissa Aubin
Signature:	/Melissa Aubin/
	PATENT

REEL: 031146 FRAME: 0537

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Date:	09/05/2013
Total Attachments: 8 source=P56204_Assignment#page1.tif source=P56204_Assignment#page2.tif source=P56204_Assignment#page3.tif source=P56204_Assignment#page4.tif source=P56204_Assignment#page5.tif source=P56204_Assignment#page6.tif source=P56204_Assignment#page7.tif source=P56204_Assignment#page8.tif	

PATENT REEL: 031146 FRAME: 0538

## **ASSIGNMENT**

In consideration of good and valuable consideration, the receipt of which is hereby acknowledged, we, the undersigned inventor(s):

## PAUL GWIN; HARISH JÁGADISH; NARASIMHA SHASTRI; MADHUKAR PATIL

hereby sell, assign, and transfer to:	Intel Corporation		
a corporation of Delaware, having a	principal place of business at 2200	Mission College Boulevare	d, Santa Clara
California, 95054 USA ("Assignee").	and its successors, assigns, and legal	representatives, the entire	right, title, and
interest for the United States and al	t other countries, in and to any and	all inventions and improve	ements that are
disclosed in the application for the pat	ent entitled:		
C	OOLING ELECTRONIC DEV	VICES	
	attorney having appropriate authorite and application number of said app		ert on the
which was filed on	July 9, 2013	as as	
US	Application Number	13/937.501	and
COUNTRY or Internationa	l Office		
ŕ	signed prior hereto or concurrently here Additional Applications, and all other p		
filed in the United States and all other	countries and international filing office	es on any of said inventions	and
improvements; and in and to all origin	al and reissued patents that have been c	or shall be issued in the Unit	ed States and
all other countries and international fi	ling offices on said inventions and impr	rovements; and in and to all	rights of
priority resulting from the filing of sai	d applications; as used herein "Addition	onal Applications" includes t	out is not
limited to design, utility, utility model	, divisional, continuing, continuation-ir	n-part, substitute, renewal, re	eissue, and
national phase applications on said in	ventions and improvements;		
and agree that said Assignee may app	ly for and receive a patent or patents for	r said inventions and improv	rements in its
own name; and that, when requested,	without charge to, but at the expense of	, said Assignee, its successo	rs, assigns, and
legal representatives, to carry out in g	ood faith the intent and purpose of this.	Assignment, the undersigned	d will execute
all Additional Applications, and all ot	her patent applications on any and all sa	uid inventions and improven	nents; execute
all rightful oaths, assignments, power	s of attorney, and other papers; commun	nicate to said Assignee, its si	uecessors,
assigns, and legal representatives all f	acts known to the undersigned relating	to said inventions and impro	ovements and

Page 1 of 2

maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Paul Dur	8-22-2013
Paul Gwin	Date signed
Harish Jagadish	Date signed
Narasimha Shastri	Date signed
Madhukar Patil	Date signed

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Paul Gwin	Date signed
J. 71.———	3 ALG 2013
Harish Jagadish	Date signed
Narasimba Shastri	Date signed
	agent en franzo en la companya de la collègia de l La collègia de la co La collègia de la co
Madhukar Patil	Date signed

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hereby sell, assign, and transfer to:	Intel Corporation		
California, 95054 USA ("Assignee")	a principal place of business at 2200, and its successors, assigns, and legal II other countries, in and to any and tent entitled:	representatives, the entire	right, title, and
C	COOLING ELECTRONIC DEV	/ICES	
(I hereby authorize and request any designated lines below, the filing da	y attorney having appropriate authori te and application number of said app	ity from the assignee to ins plication when known.)	ert on the
which was filed on	July 9, 2013	as	
COUNTRY or Internation	Application Number	13/937,501	and
ŕ	rsigned prior hereto or concurrently here Additional Applications, and all other pa		
	r countries and international filing office	-	
-	nal and reissued patents that have been c		
	lling offices on said inventions and impr		**
	id applications; as used herein "Additional continues applications in		
national phase applications on said in	<ul> <li>I, divisional, continuing, continuation-ir ventions and improvements;</li> </ul>	r-part, suostituie, teitewai, te	assae, and
and agree that said Assignee may app	ly for and receive a patent or patents for	r said inventions and improv	ements in its
own name; and that, when requested,	without charge to, but at the expense of	, said Assignee, its successo	ts, assigns, and
legal representatives, to carry out in g	good faith the intent and purpose of this.	Assignment, the undersigned	d will execute
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covenant with said Assignee, its successors, assigns, and legal representatives that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by the undersigned, and that full right to convey the same as herein expressed is possessed by the undersigned.

Paul Gwin	Date signed
Harish Jagadish	Date signed
Company of the State of the Sta	<u> 26-721-2013</u>
Narasimha Shastri	Date signed
	£
Madhukar Patil	Date signed

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disclosed in the application for the patent entitled:	
COOLING ELECTRONIC DEVICES	
(I hereby authorize and request any attorney having appropriate authority from the assignee to insert on the designated lines below, the filing date and application number of said application when known.)	
which was filed on July 9, 2013 as	
US Application Number 13/937.501 and COUNTRY or International Office	
COUNTRY or International Office	
which has been executed by the undersigned prior hereto or concurrently herewith on the date(s) indicated below, and in and to said application and all Additional Applications, and all other patent applications that have been or shall be	
filed in the United States and all other countries and international filing offices on any of said inventions and	
improvements; and in and to all original and reissued patents that have been or shall be issued in the United States and	
all other countries and international filing offices on said inventions and improvements; and in and to all rights of	
priority resulting from the filing of said applications: as used herein "Additional Applications" includes but is not	
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own name; and that, when requested, without charge to, but at the expense of, said Assignee, its successors, assigns, and	
legal representatives, to carry out in good faith the intent and purpose of this Assignment, the undersigned will execute	
all Additional Applications, and all other patent applications on any and all said inventions and improvements; execute	
all rightful oaths, assignments, powers of attorney, and other papers; communicate to said Assignee, its successors,	
assigns, and legal representatives all facts known to the undersigned relating to said inventions and improvements and	

maintaining proper patent protection for said inventions and improvements and for vesting title to said inventions and improvements, and all applications for patents and all patents on said improvements, in said Assignee, its successors, assigns, and legal representatives; and

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Paul Gwin	Date signed
Harish Jagadish	Date signed
Narasimha Shastri	Date signed
Madhukar Patil	2374 AV8   2013   Date signed