503220577 03/16/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3267193

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ZVIKA GREENFIELD	01/15/2015
KULJIT S. BAINS	10/08/2014
THEODORE Z. SCHOENBORN	11/21/2014
CHRISTOPHER P. MOZAK	09/15/2014
JOHN B. HALBERT	09/10/2014

RECEIVING PARTY DATA

Name: INTEL CORPORATION	
Street Address:	2200 MISSION COLLEGE BOULEVARD
City:	SANTA CLARA
State/Country:	CALIFORNIA
Postal Code:	95054

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13539417

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: 503.439.8778

Email: Andrea_Dolder@BSTZ.com

Correspondent Name: MARK C. VAN NESS

Address Line 1: 1925 NW AMBERGLEN PARKWAY

Address Line 2: SUITE 230

Address Line 4: BEAVERTON, OREGON 97006

ATTORNEY DOCKET NUMBER:	42P44810
NAME OF SUBMITTER:	MARK C. VAN NESS
SIGNATURE:	/Mark C. Van Ness/
DATE SIGNED:	03/16/2015
	•

Total Attachments: 10

PATENT REEL: 035174 FRAME: 0649

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<u>ASSIGNMENT</u>

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the below-named inventor(s):

Zvika Greenfield; Kuljit S. Bains; Theodore Z. Schoenborn; Christopher P. Mozak; John B. Halbert

hereby sell, assign, and transfer to

Intel Corporation

a Corporation of Delaware, having a principal place of business at 2200 Mission College Boulevard, Santa Clara, California 95054 United States ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all foreign countries, in and to any and all inventions or improvements that are disclosed in the application (provisional or non-provisional) for the United States patent which for the non-provisional application may have a declaration executed by the undersigned prior hereto or concurrently herewith and which application (provisional or non-provisional) is entitled

ROW HAMMER CONDITION MONITORING

said patent application also identified as follows (when known):

iling da	[i/we hereby authorize an attorney or agent for said Assignee to insert below the application number and date of said patent application when known.]	
Jnited 5	States Patent Application Number <u>13/539.417</u> filed <u>June 30, 2012</u> ,	
applicat	and to said application (provisional or non-provisional) and all provisional applications, non-provision ions, utility applications, design applications, divisional applications, continuation applications, continuation applications, reiss	

applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filing of said United States application;

agree that said Assignee may apply for and receive a patent or patents for said inventions or improvements in its 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 provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continued prosecution applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications on any and all said inventions or 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 or improvements and the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing and maintaining proper patent protection for said inventions or improvements and for vesting title to said inventions or improvements, and all applications for patents and all patents on said inventions or improvements, in said Assignee, its successors, assigns, and legal representatives; and

42P44810

Page 1 of 2

Each Inventor: Please Sign and Date Below:

1/15/2015 Date	Name: Zvika Greenfield
Date	Name: Kuljit S. Bains
Date	Name: Theodore Z. Schoenborn
Date	Name: Christopher P. Mozak
Date	Name: John B. Halbert
Date	Name:
Date Date	Name: Name:
har takker	1 1001 1101

Assignment Document Return Address: BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP 1279 Oakmead Parkway Sunnyvale, CA 94085-4040 Telephone: (503) 439-8778

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United S	States Patent	Application	Number	13/539,417		filed	June 30, 20)12
and in		• •	44	or non-provision		•	• •	•

and in and to said application (provisional or non-provisional) and all provisional applications, non-provisional applications, utility applications, design applications, divisional applications, continuation applications, continuation-in-part applications, substitute applications, renewal applications, reissue applications, reexaminations, extensions, and all other patent applications that have been or shall be filed in the United States and all foreign countries on any of said inventions or improvements; and in and to all original patents, reissued patents, reexamination certificates, and extensions, that have been or shall be issued in the United States and all foreign countries on said inventions or improvements; and in and to all rights of priority resulting from the filling of said United States application;

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42P44810 Page 1 of 2

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SCT 8 2014	Lobert
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Date	Name: John B. Halbert
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United States Patent Application Numb	er <u>13/539,417</u>	filed <u>June 3</u>	0.2012
and in and to said application (provi applications, utility applications, desig prosecution applications, continuation	n applications, divisional appl	ications, continuation a	pplications, continued

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United States Patent Application Number	13/539,417	filed	June 30, 2012			

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42P44810 Page 1 of 2

Each Inventor: Please Sign and Date Below; Date Name: Zvika Greenfield Date Name: Kuljit S. Bains Date Name: Theodore Z. Schoenborn 2014 Name: Christopher P. Mozak Date Name: John B. Halbert Date Name: Oate Name: Date Name: Date Name: Date Name: Name: Date

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42P44810 Page 1 of 2

Each Inventor: Please Sign and Date Below:

25% tt' "

Date	Name: Zvika Greenfield
Date	Name: Kuljit S. Bains
Date	Name: Theodore Z. Schoenborn
Date 9-10-14	Name: Christopher P. Mozak
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Page 2 of 2

PATENT REEL: 035174 FRAME: 0660

RECORDED: 03/16/2015

Date