504722489 01/10/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4769212

JBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
ONVEYING PARTY D	ΑΤΑ		
		Name	Execution Date
FRANCESC GUIM BERNAT			07/22/2017
SUSANNE M. BALLE			07/10/2017
RAHUL KHANNA			01/08/2018
SUJOY SEN			08/22/2017
ARTHIK KUMAR			07/10/2017
RECEIVING PARTY DA	ATA		
lame:		CORPORATION	
Street Address:	2200 M	IISSION COLLEGE BOULEVARD	
City:	SANTA	CLARA	
State/Country:		CALIFORNIA	
Postal Code:	95054		
Postal Code:	95054 6 Total: 1	Number	
Postal Code:	95054 6 Total: 1		
Postal Code: PROPERTY NUMBERS Property Type	95054	Number	
Postal Code: PROPERTY NUMBERS Property Type Application Number:	95054 6 Total: 1	Number	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will b	95054 S Total: 1 DATA	Number 15638855	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will b	95054 6 Total: 1 DATA pe sent to provideo	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will built	95054 S Total: 1 DATA	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful; if will be sent via US I	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will & Using a fax number, if Phone: Email: Correspondent Name:	95054 S Total: 1 DATA	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful, it will be sent via US II 317-231-1313 ktyree@btlaw.com BARNES & THORNBURG LLP	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will built using a fax number, if Phone: Email: Correspondent Name: Address Line 1:	95054 S Total: 1 DATA	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful, it will be sent via US II 317-231-1313 ktyree@btlaw.com BARNES & THORNBURG LLP 11 S. MERIDIAN STREET	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will & Using a fax number, if Phone: Email: Correspondent Name:	95054 S Total: 1 DATA	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful, it will be sent via US II 317-231-1313 ktyree@btlaw.com BARNES & THORNBURG LLP	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will built using a fax number, if Phone: Email: Correspondent Name: Address Line 1:	95054 S Total: 1 DATA	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful, it will be sent via US II 317-231-1313 ktyree@btlaw.com BARNES & THORNBURG LLP 11 S. MERIDIAN STREET	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will b using a fax number, if Phone: Email: Correspondent Name: Address Line 1: Address Line 1: Address Line 4: TTORNEY DOCKET N AME OF SUBMITTER:	95054 S Total: 1 DATA De sent to provideo	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful, it will be sent via US II 317-231-1313 ktyree@btlaw.com BARNES & THORNBURG LLP 11 S. MERIDIAN STREET INDIANAPOLIS, INDIANA 46204	
Postal Code: PROPERTY NUMBERS Property Type Application Number: CORRESPONDENCE I Fax Number: Correspondence will & Sorrespondence will & Sorrespondent Name: Address Line 1: Address Line 1: Address Line 4:	95054 S Total: 1 DATA De sent to provideo	Number 15638855 (317)231-7433 o the e-mail address first; if that is unsuccessful; if that is unsuccessful; if that is unsuccessful, it will be sent via US II 317-231-1313 ktyree@btlaw.com BARNES & THORNBURG LLP 11 S. MERIDIAN STREET INDIANAPOLIS, INDIANA 46204 P116899/45631-263942	

source=P116899 exec assign#page1.tif

PATENT REEL: 044584 FRAME: 0255

ASSIGNMENT

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

FRANCESC GUIM BERNAT; SUSANNE M. BALLE; RAHUL KHANNA; SUJOY SEN; KARTHIK KUMAR

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 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

TECHNOLOGIES FOR DYNAMICALLY MANAGING RESOURCES IN DISAGGREGATED ACCELERATORS

(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.)

United States Application Number 15/638,855 and	which was filed on	lune 30, 2017			15	
United States Application Number 15/638,855 and						
	United States	Application	Number	15/638.8	55	and

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 limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 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

Page 1 of 2

Attorney Docket No.: P116899

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing 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

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.

Francesc Guim Bernat

ZZ July ZO1A Date signed

Date signed

Date signed

Date signed

Susanne M. Balle

Rahul Khanna

Sujoy Sen

Karthik Kumar

Date signed

Assignee: <u>INTEL CORPORATION</u>

Name of Representative of Legal Entity: _

Signature:

<u>ASSIGNMENT</u>

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

FRANCESC GUIM BERNAT; SUSANNE M. BALLE; RAHUL KHANNA; SUJOY SEN; KARTHIK KUMAR

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 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

TECHNOLOGIES FOR DYNAMICALLY MANAGING RESOURCES IN DISAGGREGATED ACCELERATORS

(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	June 30, 2017	as	
United States	Application Number	15/638.855	and

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 limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 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

Page 1 of 2

Attorney Docket No.: P116899

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing 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

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.

Francesc Guim Bernat

Susanne M. Balle

Rahul Khanna

Sujoy Sen

Karthik Kumar

Date signed

Assignee: INTEL CORPORATION

Name of Representative of Legal Entity:

Signature:

Page 2 of 2

PATENT REEL: 044584 FRAME: 0258

Date signed

<u>'7/10 - 2017</u> Date signed

Date signed

Date signed

<u>ASSIGNMENT</u>

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

FRANCESC GUIM BERNAT; SUSANNE M. BALLE; RAHUL KHANNA; SUJOY SEN; KARTHIK KUMAR

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 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

TECHNOLOGIES FOR DYNAMICALLY MANAGING RESOURCES IN DISAGGREGATED ACCELERATORS

(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	June 30, 2017	as	
United States	Application Numbe	r <u>15/638,855</u>	and

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 limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 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

Page 1 of 2

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing 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

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.

Francesc Guim Bernat	Date signed		
Susanne M. Balle	Date signed		
Laffeld	1/2/2018		
Rahul Khanna	Date signed		
Sujoy Sen	Date signed		
Karthik Kumar	Date signed		
Assignee:INTEL CORPORATION			
Name of Representative of Legal Entity:			
Signature:			

Page 2 of 2

Attorney Docket No.: P116899

ASSIGNMENT

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

FRANCESC GUIM BERNAT; SUSANNE M. BALLE; RAHUL KHANNA; SUJOY SEN; KARTHIK KUMAR

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 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

TECHNOLOGIES FOR DYNAMICALLY MANAGING RESOURCES IN DISAGGREGATED ACCELERATORS

(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 onI	me 30, 2017	as-	
United States	Application Number	15/638,855	and

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 limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 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

Page 1 of 2

the history thereof; and generally assist said Assignee, its successors, assigns, or legal representatives in securing 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

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.

Francesc Guim Bernat

Date signed

Susanne M. Balle

Rahul Khanna

SL

Sujoy Sen

Karthik Kumar

Date signed

Date signed

8/22/2017

Date signed

Date signed

Signature:

Page 2 of 2

<u>ASSIGNMENT</u>

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

FRANCESC GUIM BERNAT; SUSANNE M. BALLE; RAHUL KHANNA; SUJOY SEN; KARTHIK KUMAR

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 USA ("Assignee"), and its successors, assigns, and legal representatives, the entire right, title, and interest for the United States and all other countries, in and to any and all inventions and improvements that are disclosed in the application for the patent entitled:

TECHNOLOGIES FOR DYNAMICALLY MANAGING RESOURCES IN DISAGGREGATED ACCELERATORS

(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	June 30, 2017	as	
United States	Application Number	15/638,855	and

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 limited to design, utility, utility model, divisional, continuing, continuation-in-part, substitute, renewal, reissue, and national phase applications on said inventions and improvements;

and agree that said Assignee may apply for and receive a patent or patents for said inventions and 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 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

Page 1 of 2

the history thereof: and generally assist said Assignee, its successors, assigns, or legal representatives in securing 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

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.

Francesc Guim Bernat	Date signed
Susanne M. Balle	Date signed
Rahul Khanna	Date signed
Sujoy Sen	Date signed
Amburge	7-10-2017
NO V V V	

Name of Representative of Legal Entity:

Sígnature:

Page 2 of 2

RECORDED: 01/10/2018