505180552 11/07/2018 PATENT ASSIGNMENT COVER SHEET

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	NEW ASSIGNMENT			
NCE:	ASSIGNMENT	ASSIGNMENT		
ΑΤΑ				
	Name	Execution Date		
		09/26/2018		
		09/26/2018		
MICHAEL STEINER				
MONA VIJ				
CARLOS ROZAS				
FRANCIS MCKEEN				
		10/08/2018		
Z		09/26/2018		
I		09/26/2018		
		10/04/2018		
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NAME OF SUBMITTER:	CAMERON ZINSLI	
SIGNATURE:	/CAMERON ZINSLI/	
DATE SIGNED:	11/07/2018	
Total Attachments: 6 source=42AB0639-US_ASSIGNMENT#page1.tif source=42AB0639-US_ASSIGNMENT#page2.tif		
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ASSIGNMENT

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

FANGFEI LIU; BIN XING; MICHAEL STEINER, MONA VIJ; CARLOS ROZAS; FRANCIS MCKEEN; MELTEM OZSOY; MATTHEW FERNANDEZ; KRYSTOF ZMUDZINSKI; MARK SHANAHAN

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:

PROCESSOR INSTRUCTION SUPPORT TO DEFEAT SIDE-CHANNEL ATTACKS

(I hereby authorize and request any attorney having appropriate authority from the assignce to insert on the designated lines below, the filing date and application number of said application when known.)

which was filed on	June 29, 2018		 235	
US COUNTRY or late		Application Number	 	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 3

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 Assignment, 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.

Farngle be Fanglei Liu **Bin Xing** Michael Steinér Mona Vii

Carlos Rozas

Francis Mckeen

Meltein Ozsov

2 aucence

Matthew Fernandez

09/26/2018 Date signed

26-09-2018

Date signed

<u>2018 - 08 - 26</u> Date signed

09/26/2018 Date signed

9/28/20 B

Date signed

<u>26 Sept 20 /8</u> Date Signed

02 2018

Date signed

<u>2018-09-26</u> Date signed

Page 2 of 3

6/ (Zuldel) Krystof ZMUDZINSKI

Attorney Docket No.: AB0639-US

 $\mathcal{Y}\mathcal{G}$ Date signed

Mark SHANAHAN

Date signed

Page 3 of 3

ASSIGNMENT

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which	was filed on	June 29, 2018		<u>as</u>	
US			Application Number	16/024,733	 and
COU	INTRY or Int	ernational Office	07		

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;

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Fangfei Liu

Bin Xing

Michael Steiner

Mona Vij

Carlos Rozas

Francis Mckeen

Meltem Ozsoy

Matthew Fernandez

Date signed

Page 2 of 3

Krystof ZUMUDINSKI

Date signed

Mark SHANAHAN

10/4, Date signed

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PATENT REEL: 047441 FRAME: 0878

RECORDED: 11/07/2018