PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4923903

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	EXECUTIVE ORDER 9424, CONFIRMATORY LICENSE

CONVEYING PARTY DATA

Name	Execution Date
INTEL FEDERAL LLC	06/02/2017

RECEIVING PARTY DATA

Name:	Government of the United States as Represented by the Secretary of the Air Force
Street Address:	2240 B. Street
Internal Address:	Building 11, Area B
City:	Wright-Patterson AFB
State/Country:	OHIO
Postal Code:	45433-7109

PROPERTY NUMBERS Total: 13

Property Type	Number
Application Number:	14635849
Application Number:	14582607
Application Number:	14229767
Application Number:	14317698
Application Number:	14581903
Application Number:	14553934
Application Number:	14572031
Application Number:	14582956
Application Number:	14607113
Application Number:	14682840
Application Number:	14698486
Application Number:	14989694
Application Number:	15176069

CORRESPONDENCE DATA

Fax Number: (937)255-3733

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.

Email: karen.gulley@us.af.mil
Correspondent Name: KAREN C GULLEY

PATENT
REEL: 045591 FRAME: 0334

504877163

Address Line 1:	2240 B. STREET	
Address Line 2:	BUILDING 11, AREA B	
Address Line 4:	WRIGHT-PATTERSON AFB, OHIO 45433-7109	
NAME OF SUBMITTER:	KAREN C GULLEY	
SIGNATURE:	/Karen C Gulley/	
DATE SIGNED:	04/19/2018	
Total Attachments: 13	·	
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Invention Title:	Common N-Well with Forced Local Clock Buffer Retention Flip-Flop for Reduced Area/Delay			
Inventor(s):	Agarwal, Amit Hsu, Steven Krishnamurthy, Ram			
SI Number:	SI#-FA8650-13-3-7338-0109			
Patent Application Serial No:	14/635,849 Filing Date: 03/02/2015			
Patent Number	9,641,160	Issue Date:	05/02/2017	
Recipient:	Intel Federal LLC	Agreement No.:	FA8650-13-3-7338	
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

The Invention identified above is a "Subject Invention" under the Patent Rights Clause included in the above-numbered Agreement with the above-named Agency.

This document is confirmatory of the license granted to the U.S. Government under the referenced agreement in this Subject Invention.

The U.S. Government is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.

Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	A K Nearest Neighbor (kNN) Accelerator with Data-Dependent Accuracy Refinement for Visual Recognition			
Inventor(s):	Kaul, Himanshu Anders, Mark Mathew			
SI Number:	SI#-FA8650-13-3-7338-0111			
Patent Application Serial No:	14/582,607 Filing Date: 12/24/2014			
Patent Number	9,626,334	Issue Date:	04/18/2017	
Recipient:	intel Federal LLC	Agreement No.:	FA8650-13-3-7338	
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Unified Circuit Assist for Register File (RF) and ROM Vmin Reduction, Leakage Reduction, Aging Tolerance and Array Compaction			
Inventor(s):	Kulkarni, Jaydeep Thaploo, Anu Rajwani, Iqbal Koo, Khskoo Karl, Eric A Khellah, Muhammad			
SI Number:	SI#-FA8650-13-3-7338-0112			
Patent Application Serial No:	14/229,767 Filing Date: 03/28/2014			
Patent Number	9,355,694	Issue Date:	05/31/2016	
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	A Hybrid CAM Assisted DEFLATE Decompression Accelerator			
Inventor(s):	Satpathy, Sudhir Mathew, Sanu Gopal, Vinodh			
SI Number:	SI#-FA8650-13-3-7338-0113			
Patent Application Serial No:	14/317,698 Filing Date: 06/27/2014			
Patent Number	9,306,596	Issue Date:	04/05/2016	
Recipient:	Intel Federal LLC	Agreement No.:	FA8650-13-3-7338	
Agency:	USAF/AFMC, AFRL Wrigh Patterson AFB, OH 45433		Street, Building 167, Wright-	

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Smart Power Delivery Network (SPDN)			
Inventor(s):	Krishnamurthy, Harish /	Ahmed, Zakir Ravichandra	nn, Krishnam	
SI Number:	SI#-FA8650-13-3-7338-0116			
Patent Application Serial No:	14/581,903 Filing Date: 12/23/2014			
Patent Number	Issue Date:			
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Delta VDD Aware VMIN Assist Techniques for Ultra-Low Voltage Level Shifter			
Inventor(s):	Trivedi, Amit Kulkarni, Jaydeep Khellah, Muhammad Tokunaga, Carlos			
SI Number:	SI#-FA8650-13-3-7338-0117			
Patent Application Serial No:	14/553,934 Filing Date: 11/25/2014			
Patent Number	9,385,722	Issue Date:	07/05/2016	
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Self-Repair Mechanism for Min-Delay Failures			
Inventor(s):	Meinerzhagen, Pascal Kandu, Sandip Tschanz, Jim De, Vivek			
SI Number:	SI#-FA8650-13-3-7338-0118			
Patent Application Serial No:	14/572,031 Filing Date: 12/16/2014			
Patent Number	9,520,877	Issue Date:	12/13/2016	
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	All In-One Voltage Regulator			
inventor(s):	Kumar, Paven Krishnam	nurthy, Harish		
SI Number:	SI#-FA8650-13-3-7338-0121			
Patent Application Serial No:	14/582,956 Filing Date: 12/24/2014			
Patent Number	Issue Date:			
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Steering Vector Based Compresses Domain Threshold Detection for Ultra-Low Power Platforms			
Inventor(s):	Satpathy, Sudhir Mathew, Sanu Krishnamurthy, Ram			
SI Number:	SI#-FA8650-13-3-7338-0123			
Patent Application Serial No:	14/607,113 Filing Date: 01/28/2015			
Patent Number	9,503,747 Issue Date: 11/22/2016			
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Patterson AFB, OH 45433	_	Street, Building 167, Wright-	

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Single Capacitor Multi-Phase 3-Level Buck Voltage Regulator			
Inventor(s):	Kumar, Pavan			
SI Number:	SI#-FA8650-13-3-7338-0124			
Patent Application Serial No:	14/682,840 Filing Date: 04/09/2015			
Patent Number	9,600,062	Issue Date:	03/21/2017	
Recipient:	Intel Federal LLC Agreement No.: FA8650-13-3-7338			
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801			

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

PATENT REEL: 045591 FRAME: 0345 ! !

Invention Title:	Index-Checkpoint Based Look-Ahead Speculation for Parallel Out-of-Order DEFLATE Decompression Hardware Accelerator		
Inventor(s):	Satpathy, Sudhir Mathew, Sanu		
SI Number:	SI#-FA8650-13-3-7338-0125		
Patent Application Serial No:	14/698,486	Filing Date:	04/28/2015
Patent Number	9,513,919	Issue Date:	12/06/2016
Recipient:	Intel Federal LLC	Agreement No.:	FA8650-13-3-7338
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801		

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	An Area/Energy Efficient Complex Regular Expressions Pattern Matching Haradware Accelerator with Probability Based Dynamically Truncated DFA		
Inventor(s):	Agarwal, Amit Hsu, Steven Krishnamurthy, Ram		
SI Number:	SI#-FA8650-13-3-7338-0127		
Patent Application Serial No:	14/989,694	Filing Date:	01/06/2016
Patent Number		Issue Date:	
Recipient:	Intel Federal LLC	Agreement No.:	FA8650-13-3-7338
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801		

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Intel Federal LLC	Name:	Kim Silva
4100 Monument Corner Drive	Title:	Program Manager
Suite 540	Date:	6/02/2017
Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

Invention Title:	Aging-Tolerant Register File Circuit with Gated Shared-P Write and Fully-Gated Contention-Free Keeper Read		
Inventor(s):	Agarwal, Amit Hsu, Steven Choday, Sri Harsha		
SI Number:	SI#-FA8650-13-3-7338-0129		
Patent Application Serial No:	15/176,069	Filing Date:	06/07/2016
Patent Number		Issue Date:	·
Recipient:	Intel Federal LLC	Agreement No.:	FA8650-13-3-7338
Agency:	USAF/AFMC, AFRL Wright Research Site, 2310 Eighth Street, Building 167, Wright-Patterson AFB, OH 45433-7801		

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Fairfax, VA 22030	Signature:	/Kim Silva/
703-633-0953		Kim Silva

PATENT REEL: 045591 FRAME: 0348

RECORDED: 04/19/2018