PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6419686

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC	11/05/2020

RECEIVING PARTY DATA

Name:	DEUTSCHE BANK AG NEW YORK BRANCH, AS COLLATERAL AGENT
Street Address:	60 WALL STREET
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10005

PROPERTY NUMBERS Total: 119

Property Type	Number
Application Number:	16946703
Application Number:	16947085
Application Number:	16947564
Application Number:	16947586
Application Number:	16947593
Application Number:	16948215
Application Number:	16948491
Application Number:	16948517
Application Number:	17011027
Application Number:	17016682
Application Number:	17016708
Application Number:	17017089
Application Number:	17038583
Application Number:	62705766
Application Number:	62705864
Application Number:	62706134
Application Number:	62706166
Application Number:	62706403
Application Number:	63047037
Application Number:	63052075

PATENT REEL: 054523 FRAME: 0378

506372930

Property Type	Number
Application Number:	63052096
Application Number:	63052270
Application Number:	62705665
Application Number:	63065228
Application Number:	16929378
Application Number:	16929397
Application Number:	16929542
Application Number:	16941231
Application Number:	16942916
Application Number:	16946768
Application Number:	16947317
Application Number:	16984758
Application Number:	16985995
Application Number:	16987236
Application Number:	17014890
Application Number:	17031539
Application Number:	62705755
Application Number:	62705756
Application Number:	62705758
Application Number:	62705769
Application Number:	62705840
Application Number:	63085770
Application Number:	17021775
Application Number:	17035983
Application Number:	17037948
Application Number:	63052167
Application Number:	63057005
Application Number:	63057032
Application Number:	63057108
Application Number:	63061931
Application Number:	63061941
Application Number:	63061951
Application Number:	63065679
Application Number:	16918574
Application Number:	16987572
Application Number:	17017191
Application Number:	17022366
Application Number:	17027455

Property Type	Number
Application Number:	17037313
Application Number:	17038013
Application Number:	63047002
Application Number:	63049691
Application Number:	63050469
Application Number:	63052309
Application Number:	63063786
Application Number:	63083576
Application Number:	16947051
Application Number:	16948265
Application Number:	16948665
Application Number:	16948709
Application Number:	17008266
Application Number:	17019799
Application Number:	62705646
Application Number:	62705692
Application Number:	63070332
Application Number:	16929335
Application Number:	16947978
Application Number:	16947012
Application Number:	16947017
Application Number:	16947050
Application Number:	16947562
Application Number:	16947604
Application Number:	16948100
Application Number:	16948105
Application Number:	16948269
Application Number:	16948274
Application Number:	16948283
Application Number:	16948325
Application Number:	16948380
Application Number:	16948724
Application Number:	16988128
Application Number:	17011075
Application Number:	17011106
Application Number:	17027913
Application Number:	17029682
Application Number:	62705658

Property Type	Number
Application Number:	62705663
Application Number:	62705664
Application Number:	62705720
Application Number:	62706592
Application Number:	63047091
Application Number:	63047110
Application Number:	16946755
Application Number:	16947275
Application Number:	16947995
Application Number:	16948285
Application Number:	16948288
Application Number:	16948409
Application Number:	16948415
Application Number:	16948417
Application Number:	16948617
Application Number:	17034938
Application Number:	62706382
Application Number:	62706495
Application Number:	62706497
Application Number:	62706672
Application Number:	62706759
Application Number:	62706968
Application Number:	62706969

CORRESPONDENCE DATA

Fax Number: (602)244-3169

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Email: patents@onsemi.com

Correspondent Name: SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC

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Address Line 2: MD A700

Address Line 4: PHOENIX, ARIZONA 85008

DATE SIGNED:	11/25/2020
SIGNATURE:	/Kelly A. Hall/
NAME OF SUBMITTER:	KELLY A. HALL
ATTORNEY DOCKET NUMBER:	Q3 2020 PSA

Total Attachments: 14

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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT, dated as of November 5, 2020 ("Patent Security Agreement"), made by each of the signatories hereto (together with any other entity that may become a party hereto as provided herein, the "Patent Grantors"), is in favor of DEUTSCHE BANK AG NEW YORK BRANCH, as collateral agent (in such capacity, the "Collateral Agent") for the Secured Parties.

$\underline{W} \underline{I} \underline{T} \underline{N} \underline{E} \underline{S} \underline{S} \underline{E} \underline{T} \underline{H}$:

WHEREAS, the Patent Grantors are party to a Guarantee and Collateral Agreement dated as of April 15, 2016 (the "Guarantee and Collateral Agreement") in favor of the Collateral Agent pursuant to which the Patent Grantors are required to execute and deliver this Patent Security Agreement (capitalized terms used but not otherwise defined herein shall have the meanings given to them in the Guarantee and Collateral Agreement);

WHEREAS, pursuant to the terms of the Guarantee and Collateral Agreement, each Patent Grantor has created in favor of the Collateral Agent a security interest in, and the Collateral Agent has become a secured creditor with respect to, the Patent Collateral (as defined below);

NOW, THEREFORE, in consideration of the premises and to induce the Agents and the Lenders to enter into the Credit Agreement and to induce Lenders to make their respective extensions of credit to the Borrower thereunder and to induce the Qualified Counterparties to enter into the Specified Hedge Agreements and the Specified Cash Management Agreements and provide financial accommodation, each Patent Grantor hereby grants to the Collateral Agent, for the benefit of the Secured Parties, a security interest in all of the following property now owned or at any time hereafter acquired by such Patent Grantor or in which such Patent Grantor now has or at any time in the future may acquire any right, title or interest (collectively, the "Patent Collateral"), as collateral security for the complete payment and performance when due (whether at the stated maturity, by acceleration or otherwise) of all Secured Obligations:

- (a) all Patents of such Patent Grantor, including, without limitation, the registered and applied-for Patents of such Grantor listed on <u>Schedule 1</u> attached hereto;
- (b) to the extent not covered by <u>clause (a)</u>, all Proceeds of any of the foregoing; and
- (c) to the extent not covered by <u>clause (a)</u>, all causes of action arising prior to or after the date hereof for infringement of any of the Patents;

provided, that (i) this Patent Security Agreement shall not constitute a grant of a security interest in any property to the extent that and for as long as such grant of a security interest would be prohibited by the terms of the Guarantee and Collateral Agreement; and (ii) the security interest granted hereby (x) shall attach at all times to all proceeds of such property, (y) shall attach to such property immediately and automatically (without need for any further grant or act) at such time as the condition described in clause (i) ceases to exist and (z) to the extent severable shall in any event

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attach to all rights in respect of such property that are not subject to the applicable condition described in clause (i).

The security interest granted pursuant to this Patent Security Agreement is granted in conjunction with security interest granted to the Collateral Agent pursuant to the Guarantee and Collateral Agreement and the Patent Grantors hereby acknowledge and affirm that the rights and remedies of the Collateral Agent with respect to the security interest in the Patents made and granted hereby are more fully set forth in the Guarantee and Collateral Agreement. In the event that any provision of this Patent Security Agreement is deemed to conflict with the Guarantee and Collateral Agreement, the provisions of the Guarantee and Collateral Agreement shall govern.

Each Patent Grantor hereby authorizes and requests that the Commissioner of Patents and Trademarks record this Patent Security Agreement.

THIS PATENT SECURITY AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES UNDER THIS PATENT SECURITY AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

This Patent Security Agreement may be executed by one or more of the parties to this Patent Security Agreement on any number of separate counterparts, and all of said counterparts taken together shall be deemed to constitute one and the same instrument. Delivery of an executed signature page of this Patent Security Agreement by facsimile transmission or electronic transmission (in PDF format) shall be effective as delivery of a manually executed counterpart hereof. A copy of this Patent Security Agreement signed by all the parties shall be delivered to the Administrative Agent.

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IN WITNESS WHEREOF, each Grantor has caused this PATENT SECURITY AGREEMENT to be executed and delivered by its duly authorized officer as of the date first above written.

SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC

By: B. G. hran

Name: Bernard Gutmann

Title: Executive Vice President, Chief Financial Officer and

Treasurer

Accepted and Agreed:

DEUTSCHE BANK AG NEW YORK BRANCH, as Assignee

By:

Name: Michael Strobel
Vice President
michael-p.strobel@db.com
212-250.0939

By:

Name: Philip fancorra
Vice President
philip.tancorra@db.com

212-250-6576

PATENTS

Patent Applications

		W.L.			Patent	Grant	<u> </u>
	Status	App Title	App No.	Filing Date	No.	Date	Owner
		Process of Forming an			 		
		Electronic Device Including a					
		Junction Field-Effect					SEMICONDUCTOR
		Transistor Having a Gate					COMPONENTS
1	Application	Within a Well Region	16/946703	7/1/2020	N/A	N\A	INDUSTRIES, LLC
		TRENCH-GATE INSULATED-					· , , , , , , , , , , , , , , , , , , ,
		GATE BIPOLAR TRANSISTORS					SEMICONDUCTOR
		(IGBTs) AND METHODS OF	i				COMPONENTS
2	Application	MANUFACTURE	16/947085	7/17/2020	N/A	N\A	INDUSTRIES, LLC
		LATERAL DMOS DEVICE WITH					SEMICONDUCTOR
		STEP-PROFILED RESURF AND					COMPONENTS
3	Application	DRIFT STRUCTURES	16/947564	8/6/2020	N/A	N∖A	INDUSTRIES, LLC
		INSULATED GATED FIELD					
		EFFECT TRANSISTOR					
		STRUCTURE HAVING					SEMICONDUCTOR
		SHIELDED SOURCE AND					COMPONENTS
4	Application	METHOD	16/947586	8/7/2020	N/A	N∖A	INDUSTRIES, LLC
		HIGH-ELECTRON-MOBILITY					
		TRANSISTOR (HEMT)					
		SEMICONDUCTOR DEVICES					SEMICONDUCTOR
		WITH REDUCED DYNAMIC					COMPONENTS
5	Application	RESISTANCE	16/947593	8/7/2020	N/A	N\A	INDUSTRIES, LLC
		LATERALLY DIFFUSED METAL-					SEMICONDUCTOR
		OXIDE-SEMICONDUCTOR					COMPONENTS
6	Application	(LDMOS) TRANSISTORS	16/948215	9/9/2020	N/A	N\A	INDUSTRIES, LLC
		SEMICONDUCTOR DEVICES					SEMICONDUCTOR
		WITH DISSIMLAR MATERIALS	_				COMPONENTS
7	Application	AND METHODS	16/948491	9/21/2020	N/A	N\A	INDUSTRIES, LLC
		ELECTRONIC DEVICE					
		INCLUDING A HIGH					
		ELECTRON MOBILITY					
		TRANSISTOR INCLUDING A					SEMICONDUCTOR
		GATE ELECTRODE AND A					COMPONENTS
8	Application	DIELECTRIC FILM	16/948517	9/22/2020	N/A	N\A	INDUSTRIES, LLC
		METHOD OF FORMAN				1	SEMICONDUCTOR
_	Amaliachteu	METHOD OF FORMING A	47/04400=	0/0/222			COMPONENTS
9	Application	SEMICONDUCTOR DEVICE	17/011027	9/3/2020	N/A	N/A	INDUSTRIES, LLC
		ELECTRONIC DEVICE					SEMICONDUCTOR
1.0	Appliestics	INCLUDING A CHARGE	17/04 5505	0/40/2222			COMPONENTS
10	Application	STORAGE COMPONENT	17/016682	9/10/2020	N/A	N\A	INDUSTRIES, LLC

	Status	App Title	App No.	Filing Date	Patent No.	Grant Date	Owner
11	Application	ELECTRONIC DEVICE INCLUDING DOPED REGIONS AND A TRENCH BETWEEN THE DOPED REGIONS	17/016708	0/10/2020	NI/A	NI) A	SEMICONDUCTOR COMPONENTS
11	Application	SEMICONDUCTOR DEVICE	17/010/08	9/10/2020	N/A	N\A	INDUSTRIES, LLC
12	Application	INCLUDING A LEADFRAME OR A DIODE BRIDGE CONFIGURATION	17/017089	9/10/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
		SYSTEMS AND METHODS FOR		0, 20, 2020	.,,,,	+ • • • •	SEMICONDUCTOR
13	Application	SYSTEM OPTIMIZATION AND/OR FAILURE DETECTION	17/038583	9/30/2020	N/A	N\A_	COMPONENTS INDUSTRIES, LLC
	Analization	FOR HEMT DEVICES WITH	50 /701755				SEMICONDUCTOR COMPONENTS
14	Application	SELF-ALIGNED ELECTRODES	62/705766	7/15/2020	N/A	N/A	INDUSTRIES, LLC
15	Application	UP-DIFFUSION SUPPRESSION IN A POWER MOSFET	62/705864	7/18/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
		LATERAL TRANSISTOR WITH EXTENDED SOURCE FINGER					SEMICONDUCTOR COMPONENTS
16	Application	SEMICONDUCTOR DEVICES	62/706134	8/3/2020	N/A	N/A	INDUSTRIES, LLC
17	Application	WITH LOW RESISTANCE GATE AND SHIELD ELECTRODES AND METHODS	62/706166	8/4/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
18	Application	GATE CONTROL FOR HEMT DEVICES USING DIELECTRIC BETWEEN GATE EDGES AND GATE FIELD PLATES	62/706403	8/14/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
19	Application	METHOD OF FORMING A SEMICONDUCTOR DEVICE	63/047037	7/1/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
20	Application	Integrated Sensing Element in a HEMT Device	63/052075	7/15/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
21	Application	All-GaN Bridgeless Totem- pole PFC Converter with Integrated SenseHEMT and Gate-Driver	63/052096	7/15/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
22	Application	FURNACE BOAT AND METHOD THEREOF	63/052270	7/15/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
		COMMON-MODE TRANSIENT IMMUNITY (CMTI) CIRCUIT AND METHOD OF					SEMICONDUCTOR COMPONENTS
23	Application	OPERATION THEREFOR	62/705665	7/9/2020	N/A	N\A	INDUSTRIES, LLC

	Status	App Title	App No.	Filing Date	Patent No.	Grant Date	Owner
		EFFICIENT LED DRIVER TO					70
		MEET IEC61000-3-2					
		HARMONIC REGULATION					
		WITH FEASIBILITY OF HIGH					SEMICONDUCTOR
		VOLTAGE LED LOAD					COMPONENTS
24	Application	SELECTION	63/065228	8/13/2020	N/A	N\A	INDUSTRIES, LLC
							SEMICONDUCTOR
		SOI SUBSTRATE AND			١.		COMPONENTS
25	Application	RELATED METHODS	16/929378	7/15/2020	N/A	N\A	INDUSTRIES, LLC
							SEMICONDUCTOR
		SOI SUBSTRATE AND					COMPONENTS
26	Application	RELATED METHODS	16/929397	7/15/2020	N/A	N\A	INDUSTRIES, LLC
		DIE CLEANING CYCTEMS AND					SEMICONDUCTOR
25	Appliaction	DIE CLEANING SYSTEMS AND	4.5./0005.40	7/45/2022	11/2		COMPONENTS
_27	Application	RELATED METHODS	16/929542	7/15/2020	N/A	N\A	INDUSTRIES, LLC
		THINNED SEMICONDUCTOR					SEMICONDUCTOR
20	Application	PACKAGE AND RELATED METHODS	10/044004	7/20/2020	01/0	A13 A	COMPONENTS
28	Application	THIN SEMICONDUCTOR	16/941231	7/28/2020	N/A	N\A	INDUSTRIES, LLC
		PACKAGE AND RELATED					SEMICONDUCTOR
29	Application	METHODS	1.6/942916	7/30/2020	N/A	N/ A	COMPONENTS
29	Application	MULTI-CHIP PACKAGING	10/342310	7/30/2020	N/A	N\A	INDUSTRIES, LLC
		STRUCTURE FOR AN IMAGE					SEMICONDUCTOR COMPONENTS
30	Application	SENSOR	16/946768	7/6/2020	N/A	N\A	INDUSTRIES, LLC
- 30	Принастоп	- SENSON	10/540700	17072020	11773	14 //	SEMICONDUCTOR
		LEADFRAME WITH SOCKETS					COMPONENTS
31	Application	FOR SOLDERLESS PINS	16/947317	7/28/2020	N/A	N\A	INDUSTRIES, LLC
J.		LEADLESS SEMICONDUCTOR	10,017017	1,20,2020	11,71	1,4,7,4	INDOOTHIES, EEC
		PACKAGES, LEADFRAMES					SEMICONDUCTOR
		THEREFOR, AND METHODS					COMPONENTS
32	Application	OF MAKING	16/984758	8/4/2020	N/A	N\A	INDUSTRIES, LLC
		SEMICONDUCTOR PACKAGES			,		
		WITH DIE INCLUDING					SEMICONDUCTOR
		CAVITIES AND RELATED					COMPONENTS
33	Application	METHODS	16/985995	8/5/2020	N/A	N∖A	INDUSTRIES, LLC
							SEMICONDUCTOR
		BACKSIDE WAFER					COMPONENTS
34	Application	ALIGNMENT METHODS	16/987236	8/6/2020	N/A	N\A	INDUSTRIES, LLC
		SEMICONDUCTOR					
		SUBSTRATE PRODUCTION					SEMICONDUCTOR
		SYSTEMS AND RELATED					COMPONENTS
35	Application	METHODS	17/014890	9/8/2020	N/A	N\A	INDUSTRIES, LLC
		PLASMA DIE SINGULATION					SEMICONDUCTOR
		SYSTEMS AND RELATED	1 .				COMPONENTS
36	Application	METHODS	17/031539	9/24/2020	N/A	N\A	INDUSTRIES, LLC

	Status	App Title	App No.	Filing Date	Patent No.	Grant Date	Owner
37	Application	MULTI-SEGMENT WIRE- BOND	62/705755	7/14/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
38	Application	STRENGTHENED WIRE-BOND	62/705756	7/14/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
39	Application	MONOLITHIC SEMICONDUCTOR DEVICE ASSEMBLIES	62/705758	7/14/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
40	Application	METHOD FOR DEFINING A GAP HEIGHT WITHIN AN IMAGE SENSOR PACKAGE	62/705769	7/15/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
41	Application	ISOLATED 3D SEMICONDUCTOR DEVICE PACKAGE	62/705840	7/17/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
42	Application	Concealed Gate Terminal Packaging	63/085770	9/30/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
43	Application	REDUCING OR ELIMINATING TRANSDUCER REVERBERATION	17/021775	9/15/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
44	Application	INDUCTIVE POSITION SENSOR WITH INTEGRATED FAULT DETECTION	17/035983	9/29/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
45	Application	NON-VOLATILE MEMORY READING CIRCUITS AND METHODS FOR REDUCING SENSING DELAY PERIODS	17/037948	9/30/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
46	Application	Voltage-Controlled Oscillator with Trimming	63/052167	7/15/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
47	Application	Power Bus with Flexible Constant Current Consumption	63/057005	7/27/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
48	Application	Apparatus and Method for Instability Detection in Amplifiers	63/057032	7/27/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
49	Application	Sensor system, integrated circuit and detection method	63/057108	7/27/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
50	Application	Method and Apparatus for Diagnostic Testing on Digital Interconnect Lines	63/061931	8/6/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC

•	Status	App Title	App No.	Filing Date	Patent No.	Grant Date	Owner
		Resonant Recharge					SEMICONDUCTOR
		Synchronous Pulsed Laser					COMPONENTS
51	Application	Driver	63/061941	8/6/2020	N/A	N\A	INDUSTRIES, LLC
,		Method and Apparatus for		2,3,2325	1,971	1,4,4,	SEMICONDUCTOR
		Offset Compensation of an					COMPONENTS
52	Application	Amplifier	63/061951	8/6/2020	N/A	N\A	INDUSTRIES, LLC
		Voltage Reference	00,002332	3,0,2020	14//	14 (27	SEMICONDUCTOR
		Compensation Circuit and					COMPONENTS
53	Application	Method	63/065679	8/14/2020	N/A	N\A	INDUSTRIES, LLC
	1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		03/0030/3	0,14,2020	11/7	111/5	SEMICONDUCTOR
							COMPONENTS
54	Application	WIRELESS TRANSCEIVER	16/918574	7/1/2020	N/A	N\A	
J-T	7 ipplication	BEAMFORMING	10/3103/4	7/1/2020	11/74	IN (A	INDUSTRIES, LLC
		PERFORMANCE					SEMICONDUCTOR
55	Application	OPTIMIZATION	16/987572	8/7/2020	N/A	NI) A	COMPONENTS
رر	Application	RECEIVED SIGNAL	10/36/3/2	8/1/2020	N/A	N\A	INDUSTRIES, LLC
		EQUALIZATION OF WIRELESS					SEMICONDUCTOR
E (Application	TRANSMISSIONS	17/017101	0/10/2020	NI /A	NIN A	COMPONENTS
56	Application	FEEDBACK AND	17/017191	9/10/2020	N/A	N\A	INDUSTRIES, LLC
							SEMICONDUCTOR
	Application	RETRANSMISSION FORMAT	17/022266	0/45/2020	21/2		COMPONENTS
57	Application	OF HARQ PROTOCOL	17/022366	9/16/2020	N/A	N\A	INDUSTRIES, LLC
		MULTI-LINK WIRELESS	1				SEMICONDUCTOR
	Application	COMMUNICATIONS	47/007455	0/24/2020			COMPONENTS
58	Application	CONNECTIONS	17/027455	9/21/2020	N/A	N\A	INDUSTRIES, LLC
		DEALMEODIAED COLICITED					SEMICONDUCTOR
	Amuliantian	BEAMFORMER SOLICITED	47/007040	0 (00 (000			COMPONENTS
59	Application	SOUNDING	17/037313	9/29/2020	N/A	N/A	INDUSTRIES, LLC
							SEMICONDUCTOR
	A	MULTI-LINK RANGE	47/000040	0 (00 (000			COMPONENTS
60	Application	EXTENSION	17/038013	9/30/2020	N/A	N\A	INDUSTRIES, LLC
		RECEIVED SIGNAL					SEMICONDUCTOR
		EQUALIZATION OF WIRELESS					COMPONENTS
61	Application	TRANSMISSIONS	63/047002	7/1/2020	N/A	N\A	INDUSTRIES, LLC
		Adaptive Triband: Controller					SEMICONDUCTOR
		Logic for Configuration of					COMPONENTS
62	Abandoned	Multiband WLAN Device	63/049691	7/9/2020	N/A	N\A	INDUSTRIES, LLC
		Adaptive Triband: Controller	1				SEMICONDUCTOR
		Logic for Configuration of		1			COMPONENTS
63	Application	Multiband WLAN Device	63/050469	7/10/2020	N/A	N∖A	INDUSTRIES, LLC
							SEMICONDUCTOR
		Adaptable Voltage Controlled		1			COMPONENTS
64	Application	Oscillator Regulator	63/052309	7/15/2020	N/A	N∖A	INDUSTRIES, LLC
		ACCESS POINT DIRECTED					SEMICONDUCTOR
		STATION CAPABILITY		}			COMPONENTS
65	Application	CONFIGURATION	63/063786	8/10/2020	N/A	N\A	INDUSTRIES, LLC

	Status	App Title	App No.	Filing Date	Patent No.	Grant Date	Owner
		10.000000000000000000000000000000000000				<u> </u>	SEMICONDUCTOR
		WIDE LOCAL AREA NETWORK					COMPONENTS
66	Application	(WLAN) EMERGENCY MODE	63/083576	9/25/2020	N/A	N\A	INDUSTRIES, LLC
						,	SEMICONDUCTOR
							COMPONENTS
67	Application	VOLTAGE CLAMPING CIRCUIT	16/947051	7/16/2020	N/A	N\A	INDUSTRIES, LLC
		SYSTEM AND METHOD FOR					SEMICONDUCTOR
		CONTROLLING A LOW-					COMPONENTS
68	Application	DROPOUT REGULATOR	16/948265	9/10/2020	N/A	N\A	INDUSTRIES, LLC
		WIDE BANDGAP WAFER					
		BACKSIDE CAPPED BY A					SEMICONDUCTOR
		DETECTION FACILITATING					COMPONENTS
69	Application	LAYER	16/948665	9/28/2020	N/A	N\A	INDUSTRIES, LLC
		PLASMA-SINGULATED,					SEMICONDUCTOR
		CONTAMINANT-REDUCED					COMPONENTS
70	Application	SEMICONDUCTOR DIE	16/948709	9/29/2020	N/A	N∖A	INDUSTRIES, LLC
		VOLTAGE THRESHOLD					SEMICONDUCTOR
		SENSING SYSTEMS AND					COMPONENTS
71	Application	RELATED METHODS	17/008266	8/31/2020	N/A	N\A	INDUSTRIES, LLC
		INTEGRATED CIRCUIT					
	-	MODULE FOR					SEMICONDUCTOR
		CIRCUIT BREAKERS, RELAYS					COMPONENTS
72	Application	AND CONTACTORS	17/019799	9/14/2020	N/A	N\A	INDUSTRIES, LLC
		TERMINATION STRUCTURES					SEMICONDUCTOR
		FOR TRENCH-GATE FIELD-					COMPONENTS
73	Application	EFFECT TRANSISTORS	62/705646	7/9/2020	N/A	N\A	INDUSTRIES, LLC
		Linear Voltage Regulator with					SEMICONDUCTOR
		Improved Back-to-back Load			_		COMPONENTS
74	Application	Transient Response	62/705692	7/10/2020	N/A	N\A	INDUSTRIES, LLC
		LOW-VOLTAGE AND					
		CONSTANT-GM					
		DIFFERENTIAL CHOPPER					SEMICONDUCTOR
		AMPLIFIER CIRCUIT AND					COMPONENTS
75	Application	METHOD	63/070332	8/26/2020	N/A	N\A	INDUSTRIES, LLC
		BONDED SEMICONDUCTOR					SEMICONDUCTOR
		PACKAGE AND RELATED	10/05	_ (, , , , , , , ,			COMPONENTS
76	Application	METHODS	1.6/929335	7/15/2020	N/A	N\A	INDUSTRIES, LLC
		METHODS AND APPARATUS		İ			SEMICONDUCTOR
	A months of the co	FOR VARIABLE CAPACITANCE	45/047.070	0/06/0000	A1.46	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	COMPONENTS
77	Application	DETECTION IN A CINE CYCTEMS WITH	16/947,978	8/26/2020	N/A	N\A	INDUSTRIES, LLC
		IMAGING SYSTEMS WITH					
		IMPROVED CIRCUITRY TO					SEMICONDUCTOR
.	Ann!:+:	PROVIDE BOOSTED CONTROL	10/047040	7/45/0000	NI/A		COMPONENTS
78	Application	SIGNALS	16/947012	7/15/2020	N/A	N\A	INDUSTRIES, LLC

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	Status	App Title	App No.	Filing Date	Patent No.	Grant Date	Owner
		CONFIGURABLE PIXEL READOUT CIRCUIT FOR IMAGING AND TIME OF			<u> </u>		SEMICONDUCTOR
79	Application	FLIGHT MEASUREMENTS	16/947017	7/15/2020	N/A	N\A	COMPONENTS INDUSTRIES, LLC
80	Application	METHODS AND SYSTEM FOR AN INTEGRATED CIRCUIT	16/947050	7/16/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
81	Application	METHODS AND SYSTEM FOR A RESETTABLE FLIP FLOP	16/947562	8/6/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
82	Application	IMAGING SYSTEMS WITH ADJUSTABLE AMPLIFIER CIRCUITRY	16/947604	8/10/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
		SCATTERING STRUCTURES FOR SINGLE-PHOTON					SEMICONDUCTOR COMPONENTS
83	Application	AVALANCHE DIODES SEMICONDUCTOR DEVICES WITH SINGLE-PHOTON AVALANCHE DIODES AND	16/948100	9/3/2020	N/A	N\A	SEMICONDUCTOR
84	Application	LIGHT SCATTERING STRUCTURES	16/948105	9/3/2020	N/A	N\A	COMPONENTS INDUSTRIES, LLC
85	Application	IMAGING SYSTEMS WITH SINGLE-PHOTON AVALANCHE DIODES AND AMBIENT LIGHT LEVEL DETECTION	16/948269	9/10/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS
86	Application	SYSTEMS WITH ADC CIRCUITRY AND ASSOCIATED METHODS	16/948274	9/10/2020	N/A	N\A	INDUSTRIES, LLC SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
87	Application	SYSTEMS WITH ADC CIRCUITRY AND ASSOCIATED METHODS	16/948283	9/11/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
nn.	Application	SEMICONDUCTOR DEVICES WITH SINGLE-PHOTON AVALANCHE DIODES AND HYBRID ISOLATION STRUCTURES	46/040225	0/44/2020	41/4		SEMICONDUCTOR COMPONENTS
88	Application	LIDAR SYSTEM WITH	16/948325	9/14/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS
89	Application Application	DYNAMIC RESOLUTION IMAGE SENSOR AMPLIFIERS WITH REDUCED INTER- CIRCULATION CURRENTS	16/948380	9/16/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS
90 91	Application	FAULT DETECTION CIRCUIT AND RELATED METHODS	16/948724 16/988128	9/30/2020 8/7/2020	N/A N/A	N\A N\A	INDUSTRIES, LLC SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC

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92	Application	PHASE SHIFTER SELF-TEST	17/011075	9/3/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
93	Application	SPLIT-STEER AMPLIFIER WITH INVERTIBLE OUTPUT	17/011106	9/3/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
94	Application	FAST CHIRP SYNTHESIS VIA SEGMENTED FREQUENCY SHIFTING	17/027913	9/22/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
95	Application	GLOBAL SHUTTER SENSOR SYSTEMS AND RELATED METHODS	17/029682	9/23/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
96	Application	IMAGE SENSORS WITH CONTROLLED AIR GAPS	62/705658	7/9/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
97	Application	LOW POWER SHARED IMAGE PIXEL ARCHITECTURE	62/705663	7/9/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
98	Application	IMAGE SENSOR WITH DARK REFERENCE PIXEL OVERSAMPLING	62/705664	7/9/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
99	Application	METHODS AND APPARATUS FOR A BATTERY SYSTEM	62/705720	7/13/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
100	Application	METHODS AND APPARATUS FOR A BATTERY	62/706592	8/27/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
101	Application	PHASE SHIFTER SELF-TEST	63/047091	7/1/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
102	Application	SPLIT-STEER AMPLIFIER WITH INVERTIBLE OUTPUT	63/047110	7/1/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
103	Application	ADAPTIVE GATE DRIVER	16/946755	7/6/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
104	Application	SUBSTRATE INTEGRATED WAVEGUIDE AND METHOD FOR MANUFACTURING THE SAME	16/947275	7/27/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
		REDUCED VOLTAGE SWITCHING OF A MAIN SWITCH IN FLYBACK POWER	,=====	, ., .,			SEMICONDUCTOR COMPONENTS
105	Application	CONVERTERS	16/947995	8/27/2020	N/A	N\A	INDUSTRIES, LLC

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106	Application	TUNABLE TERAHERTZ DETECTOR	16/948285	9/11/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
107	Application	MULTI-STAGE ANALOG TO DIGITAL CONVERTER	16/948288	9/11/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
108	Application	POTENTIOSTAT WITH OFFSET CALIBRATION	16/948409	9/17/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
109	Application	BANDGAP REFERENCE CIRCUIT	16/948415	9/17/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
110	Application	SYSTEMS AND METHODS OF SYNCHRONOUS RECTIFICATION IN ACTIVE CLAMP FLYBACK POWER CONVERTERS	16/948417	9/17/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
111	Application	CIRCUIT AND METHOD FOR CONTROLLING A CRYSTAL OSCILLATOR	16/948617	9/25/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
112	Application	PARTIAL ZERO VOLTAGE SWITCHING (ZVS) FOR FLYBACK POWER CONVERTER AND METHOD THEREFOR MULTIPHASE CONTROLLER WITH FAILURE DIAGNOSTIC	17/034938	9/28/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC SEMICONDUCTOR
113	Application	MECHANISM	62/706382	8/13/2020	N/A	N\A	COMPONENTS INDUSTRIES, LLC
[14	Application	AN ACTIVE DRIVER POWER SAVING TECHNOLOGY	62/706495	8/20/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
115	Application	INTERLEAVE LLC CURRENT BALANCING	62/706497	8/20/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
116	Application	STEREO AUDIO SYNCHRONIZATION OF ANDROID AUDIO STREAMING FOR HEARING AIDUSING BLUETOOTH LOW ENERGY	62/706672	9/2/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
117	Application	QUASI CONSTANT ON-TIME CONTROLLER	62/706759	9/9/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC
118	Application	AUTO-TUNING SKIP MODE	62/706968	9/22/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC

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119	Application	ADAPTIVE GATE DRIVE	62/706969	9/22/2020	N/A	N\A	SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC