

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7662161

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
SEMICONDUCTOR COMPONENTS INDUSTRIES, LLC	10/01/2021
RECEIVING PARTY DATA	
Name:	AY DEE KAY LLC DBA INDIE SEMICONDUCTOR
Street Address:	32 JOURNEY, SUITE 100
City:	ALISO VIEJO
State/Country:	CALIFORNIA
Postal Code:	92656
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	17902823
CORRESPONDENCE DATA	
Fax Number:	
<i>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.</i>	
Email:	steve.stupp@gmail.com
Correspondent Name:	STEVEN STUPP
Address Line 1:	200 STAYSAIL CT.
Address Line 4:	FOSTER CITY, CALIFORNIA 94404
ATTORNEY DOCKET NUMBER:	INDE-028/02US
NAME OF SUBMITTER:	STEVEN STUPP
SIGNATURE:	/Steven Stupp/
DATE SIGNED:	11/24/2022
Total Attachments: 7	
source=assignment-2#page1.tif	
source=assignment-2#page2.tif	
source=assignment-2#page3.tif	
source=assignment-2#page4.tif	
source=assignment-2#page5.tif	
source=assignment-2#page6.tif	
source=assignment-2#page7.tif	

CONFIRMATORY PATENT ASSIGNMENT

WHEREAS, Semiconductor Components Industries, LLC, a limited liability company organized under the laws of Delaware (“Assignor”) and Ay Dee Kay LLC, a California limited liability company (“Assignee”) entered into an Asset Purchase Agreement dated September 27, 2021, and an Intellectual Property Assignment and License Agreement, dated October 1, 2021 (collectively “Agreements”).

WHEREAS, pursuant to the Agreements, the following Patent Rights have been previously conveyed, transferred, and assigned to Assignee:

- (a) patents or applications listed in **Schedule A**
- (b) patents or applications to which any of the patents or applications in **Schedule A** claim priority;
- (c) reissues, reexaminations, extensions, continuations, continuations-in-part, continuing prosecution applications, requests for continuing examinations, divisions, and registrations of any item in **Schedule A**;
- (d) national (of any country of origin) and multinational patents, patent applications and counterparts relating to any item in any of the foregoing categories (a) and (c), including, without limitation, certificates of invention and utility models;
- (e) rights provided by multinational treaties or conventions for any item in any of the foregoing categories (a) through (d), including and all rights under the Hague Convention, the Paris Convention for the Protection of Industrial Property, and under the Patent Cooperation Treaty, and all rights of claiming priority in any country of the world; and
- (f) any item in any of the foregoing categories (a) through (e) whether or not expressly listed in **Schedule A** and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like (items (a) through (f), collectively referred to as “Patent Rights”).

WHEREAS, to the extent not previously performed pursuant to the Agreements, Assignee, its successors, legal representatives and assigns, is desirous of acquiring the entire right, title, and interest to the Patent Rights, including the right to file applications for patent and/or registered design of the United States or other countries; the right to recover any and all past, present, and future damages, including provisional or other royalties, for any and all past, present, and future infringements of the Patent Rights; and the entire right, title, and interest in and to any and all letters patent and/or registered design(s), United States or foreign, to be obtained for the Patent Rights.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, Assignor hereby irrevocably conveys, transfers, and assigns any and all of Assignor’s present right, title, and interest in the Patent Rights to Assignee and Assignee hereby accepts the Patent Rights.

AND the Assignor hereby requests the Commissioner of Patents to issue any and all aforementioned patent(s) of the United States to the Assignee, its successors, legal representatives, and assigns.

The Assignor and the Assignee agree that electronic signatures are an acceptable to effectuate execution of this Confirmatory Patent Assignment.

Date: 2022.01.11

By: *Rob Tuttle*
Name: Robert M. Tuttle
Title: Vice President, Chief Intellectual
Property Counsel
Company: Semiconductor Components
Industries, LLC

For and on behalf of ASSIGNEE:

Date: 3/2/22

DocuSigned by:
Tom Schiller
By: 9BDA33B44CB749E
Name: Tom Schiller
Title: Chief Financial Officer
Company: Ay Dee Kay LLC

ASSIGNMENT SCHEDULE A

Patent Application Title	Country	Application Number	Filed Date	Publication Number	Publication Date	Patent No.	Grant Date	Inventor(s)
ELECTRONIC PACKAGE FOR MILLIMETER WAVE SEMICONDUCTOR DIES	CN	201380016130.8	2013-03-27			ZL201380016130.8	2017-12-08	Danny ELAD Naam KAMINSKI Keishi OKAMOTO Evgeny SHUMAKER Kazushige TORIYAMA Anthony Huggert Martin Abrahams
A SIGNAL PROCESSOR, SYSTEM, AND METHOD FOR PERFORMING AN IN-PLACE FAST FOURIER TRANSFORM Current-mode logic latches for a PVT-robust mod 3 frequency divider	CN	201910798797.7	2019-08-27	CN 110941792 A	2020-03-31			Tom Heller Jakob VOVNOBOY
ACTIVE REFLECTOR WITH OSCILLATION INHIBITION	CN	202010164223.7	2020-03-11	CN111800125A	2020-10-20			Tom Heller Danny ELAD
RECONFIGURABLE MIMO RADAR	CN	201910839603.3	2019-09-06	CN 110954871 A	2020-04-03			Danny ELAD Offer MARIKISH Berry Sheinman
AMPLIFIERS SUITABLE FOR MM-WAVE SIGNAL SPLITTING AND COMBINING	CN	201980034949.4	2019-04-24	CN112166561A	2021-01-01			Berry Sheinman Tom Heller
SWITCHABLE FMCW/FMCW RADAR TRANSCIEVER	CN	202010164212.9	2020-03-11	CN111800099A	2020-10-20			Tom Heller
MULTI-INPUT DOWN CONVERSION MIXER	CN	202010182442.8	2020-03-16	ONS03148CN	2020-10-30			Tom Heller
Dual-Mode Frequency Multiplier	CN	201911278584.8	2019-12-13	CN 111327275 A	2020-06-23			Berry Sheinman
MINIMIZING PHASE NOISE IN FMCW RADAR AND DETECTING RADAR HOUSING COATING	CN	201911237682.7	2019-12-06	CN111293985A	2020-06-16			Rose Ben-Yishay
RADAR ARRAY PHASE SHIFTER VERIFICATION	CN	20201129348.2	2020-10-21	CN112816950A	2021-05-24			Danny ELAD Oded Katz Tom Heller
HIGH RESOLUTION MIMO RADAR SYSTEM	CN	202010863422.7	2020-08-25	CN112558024A	2021-03-26			Oded Katz Danny ELAD Berry Sheinman
MIMO RADAR SYSTEM WITH DUAL MODE OUTPUT POWER AMPLIFICATION	CN	202010168504.X	2020-03-12	CN 111693997 A	2020-09-22			Jian Bai Nader ROHANI
ENVELOPE REGULATION IN A FREQUENCY-MODULATED CONTINUOUS-WAVE RADAR SYSTEM	CN	202011337204.6	2020-11-25					Rose Ben-Yishay Danny ELAD Jian BAINader ROHANI
CHIPP SEQUENCE SYNTHESIS IN A DYNAMIC DISTRIBUTION NETWORK	CN	202010128673.7	2020-02-28	CN 111693996 A	2020-09-22			
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF VELOCITY	CN	202011209248.0	2020-11-03	CN112946579A	2021-06-11			Tom Heller Danny ELAD Oded Katz
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF VELOCITY	CN	202011283989.3	2020-11-17	CN112986974A	2021-06-18			Michael GRUBMAN Berry Sheinman
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF VELOCITY	CN	202011290598.4	2020-11-18	CN112986968A	2021-06-18			Dan CORCOS Dan CORCOS Simon SROT Marko MLINAR
MIMO RADAR WITH RECEIVE ANTENNA MULTIPLEXING	CN	202010974242.6	2020-09-16	CN112702090A	2021-04-23			Marko MLINAR Danny ELAD Tom Heller Oded Katz
ELECTRONIC PACKAGE FOR MILLIMETER WAVE SEMICONDUCTOR DIES	DE	112013001709.1	2013-03-27	112013001709	2014-12-11	112013001709	2020-10-29	Danny ELAD Naam KAMINSKI Keishi OKAMOTO Evgeny SHUMAKER
METHODS AND APPARATUS FOR IN-PLACE FAST FOURIER TRANSFORM	DE	10 2019 124 676 8	2019-09-13	DE 102019124676A1	2020-03-26			Kazushige TORIYAMA Anthony Huggert Martin Abrahams

ASSIGNMENT SCHEDULE A

Patent Application Title	Country	Application Number	Filed Date	Publication Number	Publication Date	Patent No.	Grant Date	Inventor(s)
PVT-ROBUST MOD 3 FREQUENCY DIVIDER USING CURRENT-MODE LOGIC ACTIVE REFLECTOR WITH OSCILLATION INHIBITION	DE	10 2020 106 947.2	2020-03-13	DE 102020 106947A1	2020-10-08			Tom Heller Jakob VOYNOBOY
RECONFIGURABLE MIMO RADAR	DE	102019006563.8	2019-09-17	DE 10 2019 006 563 A1	2020-04-02			Tom Heller Danny ELAD
AMPLIFIERS SUITABLE FOR MM-WAVE SIGNAL SPLITTING AND COMBINING	DE	102020001516.6	2020-03-09	DE 102020001516A1	2020-10-08			Benny Sheinman Tom Heller
MULTI-INPUT DOWN CONVERSION MIXER MINIMIZING PHASE NOISE IN FMCW RADAR AND DETECTING RADAR HOUSING COATING RADAR ARRAY PHASE SHIFTER VERIFICATION	DE	10 2019 008 461.6 102020006220.2	2019-12-05 2020-10-09	DE 10 2019 008 461 A1 DE 102020006220	2020-06-18 2021-05-20			Benny Sheinman Danny ELAD
HIGH RESOLUTION MIMO RADAR SYSTEM	DE	10 2020 001 515.8	2020-03-09	DE 10 2020 001 515 A1	2020-09-17			Oded Katz Tom Heller
ENVELOPE REGULATION IN A FREQUENCY-MODULATED CONTINUOUS-WAVE RADAR SYSTEM	DE	10 2020 001 587.5	2020-03-09	DE 10 2020 001 587 A1	2020-09-17			Nader ROHANI Jilan BAL
CHIRP SEQUENCE SYNTHESIS IN A DYNAMIC DISTRIBUTION NETWORK	DE	102020130159.6	2020-11-16	DE 102020130159A1	2021-05-27			Jilan BAINader ROHANI
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF VELOCITY	DE	102020007603.3	2020-12-11	DE 10 2020 007 603 A1	2021-06-17			Tom Heller Danny ELAD
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF VELOCITY	DE	10 2020 007 604.1	2020-12-11	DE 10 2020 007 604 A1	2021-06-17			Oded Katz Michael GRUBMAN
MIMO RADAR WITH RECEIVE ANTENNA MULTIPLEXING	DE	10 2020 005 866.3	2020-09-24	DE 102020005866A1	2021-04-22			Benny Sheinman Danny ELAD
ELECTRONIC PACKAGE FOR MILLIMETER WAVE SEMICONDUCTOR DIES	GB	1417884.2	2013-03-27	WO/2013/144862	2013-03-10	2515940	2016-03-23	Tom Heller Oded Katz
RECONFIGURABLE MIMO RADAR	PCT	PCT/US2019/028966	2019-04-24	WO 2019/240882	2019-12-19			Danny ELAD Naam KAMINSKI
FAST CHIRP SYNTHESIS VIA SEGMENTED FREQUENCY SHIFTING	PCT	PCT/US2021/0049879	2020-09-10					Keishi OKAWOTO Evgeny SHUMAKER
HIGH GAIN CONVERSION HIGH SUPPRESSION BALANCED CASCODE FREQUENCY QUADRUPLER	US	13/355537	2012-01-22	US 2013/0187714 A1	2013-07-25	8629708	2014-01-14	Kazushige TORIYAMA Danny ELAD
ELECTRONIC PACKAGE FOR MILLIMETER WAVE SEMICONDUCTOR DIES	US	13/433317	2012-03-29	US 2013-0256650 A1	2013-10-03	9219041	2015-12-22	Benny Sheinman Tom Heller

ASSIGNMENT SCHEDULE A

Patent Application Title	Country	Application Number	Filed Date	Publication Number	Publication Date	Patent No.	Grant Date	Inventor(s)
HIGH FREQUENCY TRANSITION MATCHING IN AN ELECTRONIC PACKAGE FOR MILLIMETER WAVE SEMICONDUCTOR DIES	US	13/43313	2012-03-29	US 2013-0256949 A1	2013-10-03	8912634	2014-12-16	Danny ELAD Naam KAMINSKI Keishi OKAWOTO Evgeny SHUMAKER Kazushige TORIYAMA
SYSTEM, A METHOD AND A COMPUTER PROGRAM PRODUCT FOR ELECTRONIC SUB-INTEGER FREQUENCY DIVISION	US	13/727642	2012-12-27	US 2014-0184281 A1	2014-07-03	8988119	2015-03-24	Danny ELAD Oded Katz Run LEVINGER Roi CAMON
MULTIPLE WAVEGUIDES EMBEDDED AROUND THE PERIPHERY OF A CHIP TO PROVIDE SIMULTANEOUS DIRECT TRANSITIONS BETWEEN THE CHIP AND THE MULTIPLE WAVEGUIDES	US	15/062239	2016-03-07	US 2016-0190670 A1	2016-09-30	9882258	2018-01-30	Danny ELAD Naam KAMINSKI Ofer MARKISH Thomas MORF
A DIRECT CHIP TO WAVEGUIDE TRANSITION INCLUDING RING SHAPED ANTENNAS DISPOSED IN A THINNED PERIPHERY OF THE CHIP	US	14/583715	2014-12-28	US 2016-0190671 A1	2016-06-30	9564671	2017-02-07	Evgeny SHUMAKER Roi CAMON Danny ELAD Naam KAMINSKI Ofer MARKISH Thomas MORF
DIRECT TRANSITION FROM A WAVEGUIDE TO A BURIED CHIP	US	15/606756	2017-05-26	US 2017-0271775 A1	2017-09-21	9893428	2018-02-13	Evgeny SHUMAKER Danny ELAD Naam KAMINSKI Ofer MARKISH
DIRECT TRANSITION FROM A WAVEGUIDE TO A BURIED CHIP	US	14/964689	2015-12-10	US 2017-0170569 A1	2017-06-15	9692135	2017-06-27	Danny ELAD Naam KAMINSKI Ofer MARKISH Roe Ben-Yishay
BALLUN BASED PHASE INVERTER USING REPLICA LOAD	US	14/984042	2015-12-30		2015-12-30	9548704	2017-01-17	Oded Katz Run LEVINGER Jakob VOVNOBOY
SYSTEM AND METHOD FOR CONTROLLING A VOLTAGE CONTROLLED OSCILLATOR SYSTEM AND METHOD FOR CONTROLLING A VOLTAGE CONTROLLED OSCILLATOR SYSTEM AND METHOD FOR CONTROLLING A PHASE LOCK LOOP	US	15/188010	2016-06-21	US 2017-0179882 A1	2017-06-22	9602050	2017-03-21	Run LEVINGER Jakob VOVNOBOY Run LEVINGER
METHODS AND APPARATUS FOR IN-PLACE FAST FOURIER TRANSFORM	US	15/423311	2017-02-02		2015-12-21	9787249	2017-10-10	Run LEVINGER Jakob VOVNOBOY
Current-mode logic latches for a PVT-robust mod 3 frequency divider	US	14/976322	2015-12-21		2015-12-21	9385729	2016-07-05	Jakob VOVNOBOY Anthony Huggett Martin Abrahams
INHIBITION	US	16/139339	2018-09-24	US 2020-0097519 A1	2020-03-26	10783216	2020-09-22	Jakob VOVNOBOY
RECONFIGURABLE MIMO RADAR	US	16/447404	2019-06-20		2018-09-27	10566957	2020-02-18	Tom Heller Jakob VOVNOBOY
RECONFIGURABLE MIMO RADAR	US	16/144115	2018-09-27	US 2020-0103494 A1	2020-04-02			Danny ELAD Ofer MARKISH Beny Sheinman
RECONFIGURABLE MIMO RADAR	US	17/338407	2021-06-03		2021-06-03			Danny ELAD Ofer MARKISH Beny Sheinman Tom Heller
RECONFIGURABLE MIMO RADAR	US	16/203149	2018-11-28	US 2019-0383901 A1	2019-12-19	11047956	2021-06-29	Danny ELAD Ofer MARKISH Beny Sheinman Tom Heller
AMPLIFIERS SUITABLE FOR MM-WAVE SIGNAL SPLITTING AND COMBINING	US	16/453033	2019-06-26	US 2020-0321931 A1	2020-10-08	11057011	2021-07-06	Tom Heller
AMPLIFIERS SUITABLE FOR MM-WAVE SIGNAL SPLITTING AND COMBINING	US	17/338526	2021-06-03		2021-06-03			Tom Heller
SWITCHABLE FMCW/PMCW RADAR	US	16/454469	2019-06-27	US 2020-0341108 A1	2020-10-29			Tom Heller
TRANSCIEVER	US	17/1410746	2021-08-24		2021-08-24			Beny Sheinman
MULTI-INPUT DOWNCONVERSION MIXER	US	16/553683	2019-09-26	US 2020-0191903 A1	2020-06-18	11105891	2021-08-31	Beny Sheinman
MULTI-INPUT DOWNCONVERSION MIXER	US	16/454749	2019-06-27	US 2020-0186175 A1	2020-06-11	10686474	2020-06-16	Roe Ben-Yishay Danny ELAD
MINIMIZING PHASE NOISE IN FMCW RADAR AND DETECTING RADAR HOUSING COATING	US	16/686773	2019-11-18	US 2021-0149018 A1	2021-05-20			Danny ELAD Oded Katz

ASSIGNMENT SCHEDULE A

Patent Application Title	Country	Application Number	Filed Date	Publication Number	Publication Date	Patent No.	Grant Date	Inventor(s)
RADAR ARRAY PHASE SHIFTER VERIFICATION	US	16/660370	2019-10-22	US 2021-0072369 A1	2021-03-11			Tom Heller Oded Katz Danny ELAD Benry Sheinman
HIGH RESOLUTION MIMO RADAR SYSTEM	US	16/799404	2020-02-24	US 2020-0292663 A1	2020-09-17			Jian Bai Nader ROHANI Rose Ben-Yishay Danny ELAD Jian BAINader ROHANI
MIMO RADAR SYSTEM WITH DUAL MODE OUTPUT POWER AMPLIFICATION ENVELOPE REGULATION IN A FREQUENCY-MODULATED CONTINUOUS-WAVE RADAR SYSTEM	US	16/829358	2020-03-25			10956323	2021-03-23	
CHIIP SEQUENCE SYNTHESIS IN A DYNAMIC DISTRIBUTION NETWORK	US	16/696623	2019-11-26			10911094	2021-02-02	Tom Heller Danny ELAD Oded Katz Michael GRUBMAN Benry Sheinman
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF VELOCITY	US	16/715028	2019-12-16	US 2021-0181304 A1	2021-06-17			Dan CORCOS Danny ELAD Marko MLINAR Simon SHOT Dan CORCOS
CALIBRATING ARRAY ANTENNAS BASED ON SIGNAL ENERGY DISTRIBUTION AS A FUNCTION OF ANGLE	US	16/715047	2019-12-16	US 2021-0181303 A1	2021-06-17			Marko MLINAR Simon SHOT Dan CORCOS Nader ROHANI Youssef ATRIS
ENHANCED RANGE-VELOCITY FINDING IN FREQUENCY-MODULATED CONTINUOUS WAVE RADAR	US	16/857102	2020-04-23					
MIMO RADAR WITH RECEIVE ANTENNA MULTIPLEXING	US	16/801406	2020-02-26			10812154	2020-10-20	Danny ELAD Tom Heller Oded Katz Tom Heller Michael GRUBMAN
PHASE SHIFTER SELF-TEST	US	17/011075	2020-09-03					Yaniv MAROZ Oded Katz Tom Heller Michael GRUBMAN
PHASE SHIFTER SELF-TEST	US	63/047091	2020-07-01					Yaniv MAROZ Oded Katz Tom Heller Yanir SCHWARTZ
SPLIT-STEER AMPLIFIER WITH INVERTIBLE OUTPUT	US	17/011106	2020-09-03					Tom Heller Yanir SCHWARTZ Oded Katz Tom Heller Yanir SCHWARTZ
SPLIT-STEER AMPLIFIER WITH INVERTIBLE OUTPUT	US	63/047110	2020-07-01					Tom Heller Yanir SCHWARTZ Oded Katz Tom Heller
FAST CHIIP SYNTHESIS VIA SEGMENTED FREQUENCY SHIFTING	US	17/027913	2020-09-22					Danny ELAD Dan CORCOS
MIMO CHANNEL EXTENDERS WITH ASSOCIATED SYSTEMS AND METHODS	US	17/160915	2021-01-28					Ross F. JATOU Danny ELAD Dan CORCOS
INTEGRATED ELECTROMAGNETIC-ACOUSTIC SENSOR AND SENSING	US	17/187251	2021-02-26					Danny ELAD Dan CORCOS
CENTRALIZED OCCUPANCY DETECTION SYSTEM	US	17/157039	2021-01-25					Danny ELAD Dan CORCOS

PATENT

REEL: 061870 FRAME: 0521

RECORDED: 11/24/2022