

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

Assignment ID: PATI314297

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	AMENDMENT TO INTELLECTUAL PROPERTY SECURITY AGREEMENT	
CONVEYING PARTY DATA		
Name		Execution Date
MOVANDI CORPORATION		06/18/2024
RECEIVING PARTY DATA		
Company Name:	FIRST-CITIZENS BANK & TRUST COMPANY, AS AGENT	
Street Address:	(CLAS PAS-04-02)	
Internal Address:	75 N. Fair Oaks Avenue	
City:	Pasadena	
State/Country:	CALIFORNIA	
Postal Code:	91103	
PROPERTY NUMBERS Total: 103		
Property Type	Number	
Patent Number:	10177828	
Patent Number:	10447372	
Patent Number:	9887760	
Patent Number:	10142006	
Patent Number:	10321332	
Patent Number:	10721634	
Patent Number:	11109243	
Patent Number:	11659409	
Patent Number:	10348371	
Patent Number:	10587313	
Patent Number:	10951274	
Patent Number:	11342968	
Patent Number:	11811468	
Patent Number:	10090887	
Patent Number:	10666326	
Patent Number:	11057077	
Patent Number:	11742895	
Patent Number:	10862559	
Patent Number:	11677450	

PATENT

Property Type	Number
Patent Number:	10916861
Patent Number:	11509067
Patent Number:	11509066
Patent Number:	9935663
Patent Number:	10243594
Patent Number:	10484078
Patent Number:	10819415
Patent Number:	11018752
Patent Number:	11463154
Patent Number:	11695467
Patent Number:	10560179
Patent Number:	11088756
Patent Number:	11558105
Patent Number:	10630373
Patent Number:	11082123
Patent Number:	11728881
Patent Number:	10171115
Patent Number:	10530401
Patent Number:	10917126
Patent Number:	11145986
Patent Number:	11742586
Patent Number:	11205855
Patent Number:	11848496
Patent Number:	11721910
Patent Number:	10637159
Patent Number:	11108167
Patent Number:	11588254
Patent Number:	11764486
Patent Number:	11088457
Patent Number:	11552401
Patent Number:	11721906
Patent Number:	10142096
Patent Number:	10291296
Patent Number:	10199717
Patent Number:	11056764
Patent Number:	11664582
Patent Number:	11171691
Patent Number:	11575411

Property Type	Number
Patent Number:	10834724
Patent Number:	11470612
Patent Number:	11737074
Patent Number:	10785705
Patent Number:	11337140
Patent Number:	11785532
Patent Number:	11108168
Patent Number:	10938347
Patent Number:	11309840
Patent Number:	11677355
Patent Number:	11038581
Patent Number:	11381301
Patent Number:	11770176
Patent Number:	11026198
Patent Number:	11700585
Patent Number:	9923712
Patent Number:	10323943
Patent Number:	10290920
Patent Number:	9813231
Patent Number:	9967087
Patent Number:	10014567
Patent Number:	9692489
Patent Number:	10389412
Patent Number:	10854995
Patent Number:	11394128
Patent Number:	11715890
Patent Number:	11502424
Patent Number:	11502425
Patent Number:	9813269
Patent Number:	10122404
Patent Number:	9755601
Patent Number:	9948260
Patent Number:	10256537
Patent Number:	10135153
Patent Number:	10389041
Patent Number:	10062965
Patent Number:	10298284
Patent Number:	10298275

Property Type	Number
Patent Number:	10014887
Patent Number:	10181866
Patent Number:	10355770
Patent Number:	5680782
Patent Number:	11444684
Patent Number:	11700052
Patent Number:	11682846
Patent Number:	11728862

CORRESPONDENCE DATA

Fax Number:

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.

Phone: 2023704750

Email: ipteam@cogencyglobal.com

Correspondent Name: Joanna McCall

Address Line 1: 1025 Connecticut Ave NW, Suite 712

Address Line 2: Cogency Global Inc.

Address Line 4: Washington, DISTRICT OF COLUMBIA 20036

ATTORNEY DOCKET NUMBER: 2408870 A JM

NAME OF SUBMITTER: Andrew Hackett

SIGNATURE: Andrew Hackett

DATE SIGNED: 06/21/2024

Total Attachments: 8

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**AMENDMENT TO
INTELLECTUAL PROPERTY SECURITY AGREEMENT**

This Amendment to the Intellectual Property Security Agreement (this “Amendment”) is made as of June 18, 2024 by and between (a) **SILICON VALLEY BANK**, a division of **FIRST-CITIZENS BANK & TRUST COMPANY** (successor by purchase to the Federal Deposit Insurance Corporation as Receiver for Silicon Valley Bridge Bank, N.A. (as successor to Silicon Valley Bank)), in its capacity as administrative agent and collateral agent (“Agent”), and (b) **MOVANDI CORPORATION**, a Delaware corporation (“Grantor”).

RECITALS

A. (a) Grantor, (b) Agent, (c) **SILICON VALLEY BANK**, a division of **FIRST-CITIZENS BANK & TRUST COMPANY** (successor by purchase to the Federal Deposit Insurance Corporation as Receiver for Silicon Valley Bridge Bank, N.A. (as successor to Silicon Valley Bank)) (“SVB”), as a lender, and (d) **SVB INNOVATION CREDIT FUND VIII, L.P.**, a Delaware limited partnership (“SVB Capital”), as a lender (SVB and SVB Capital, and each of the other “Lenders” from time to time a party to the Loan Agreement (as defined below), collectively, the “Lenders” and each individually, a “Lender”) have previously entered into that certain Mezzanine Loan and Security Agreement dated as of March 2, 2022 (as amended, modified, restated, replaced or supplemented from time to time, the “Loan Agreement”).

B. To secure its obligations and liabilities to Agent, for the ratable benefit of the Lenders, Grantor has previously granted Agent, for the ratable benefit of the Lenders, a security interest in the Intellectual Property Collateral pursuant to that certain Intellectual Property Security Agreement by and between Agent, the Lenders and Grantor dated as of March 2, 2022 (the “IPSA”). Capitalized terms used but not otherwise define here in shall have the same meaning as in the IPSA.

C. Grantor and Agent have agreed to enter into this Amendment.

NOW, THEREFORE, GRANTOR AND AGENT AGREE AS FOLLOWS:

A. MODIFICATION TO THE IP SECURITY AGREEMENT.

1. Exhibit B to the IPSA is hereby supplemented, but not replaced, by adding thereto (in addition to all items already listed thereon) the property set forth on Schedule B-1 attached hereto.

2. Exhibit D to the IPSA is hereby supplemented, but not replaced, by adding thereto (in addition to all items already listed thereon) the property set forth on Schedule D-1 attached hereto.

B. RATIFICATION OF IP SECURITY AGREEMENT. Except as expressly provided herein, the IPSA shall remain in full force and effect following the date hereof, and the IPSA shall be read and construed as if the terms of this Amendment were included therein by way of addition, deletion or substitution, as the case may be. Grantor acknowledges, confirms, and agrees that the IPSA, as amended by this Amendment, contains an accurate and complete listing of all Intellectual Property Collateral and shall remain in full force and effect.


C. COUNTERSIGNATURE. This Amendment shall become effective only when it shall have been executed by Grantor and Agent.

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Amendment to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

MOVANDI CORPORATION.

By:  DocuSigned by:
5748572306D64D1...
Name: Maryam Rofougaran
Title: Chief Executive Officer

AGENT:

FIRST-CITIZENS BANK & TRUST
COMPANY (successor by purchase to the
Federal Deposit Insurance Corporation as
receiver for Silicon Valley Bridge Bank, N.A. (as
successor to Silicon Valley Bank))

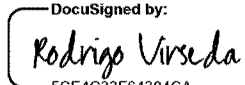
By:  DocuSigned by:
5CE4C33F64384CA...
Name: Rodrigo Virseda
Title: Vice President

EXHIBIT B-1

Patents

[see attached]

EXHIBIT B-1

Patents

<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>	<u>Description</u>
10177828	1/8/2019	Amplitude and Phase Calibration at a Transmitter Chip in an Antenna Array
10447372	10/15/2019	Amplitude and Phase Calibration at a Transmitter Chip in an Antenna Array
9887760	2/6/2018	Amplitude and Phase Calibration at a Receiver Chip in an Antenna Array
10142006	11/27/2018	Amplitude and Phase Calibration at a Receiver Chip in an Antenna Array
10321332	6/11/2019	Non-Line-Of-Sight (NLOS) Coverage for Millimeter Wave Communication
10721634	7/21/2020	Non-Line-Of-Sight (NLOS) Coverage for Millimeter Wave Communication
11109243	8/31/2021	Non-Line-Of-Sight (NLOS) Coverage for Millimeter Wave Communication
11659409	5/23/2023	NON-LINE-OF-SIGHT (NLOS) COVERAGE FOR MILLIMETER WAVE COMMUNICATION
10348371	7/9/2019	Optimized Multi-Beam Antenna Array Network with an Extended Radio Frequency Range
10587313	3/10/2020	Optimized Multi-Beam Antenna Array Network with an Extended Radio Frequency Range
10951274	3/16/2021	Optimized Multi-Beam Antenna Array Network with an Extended Radio Frequency Range
11342968	5/24/2022	Optimized Multi-Beam Antenna Array Network with an Extended Radio Frequency Range
11811468	11/7/2023	OPTIMIZED MULTI-BEAM ANTENNA ARRAY NETWORK WITH AN EXTENDED RADIO FREQUENCY RANGE
10090887	10/2/2018	Controlled Power Transmission in a Radio Frequency (RF) Device Network
10666326	5/26/2020	Controlled Power Transmission in Radio Frequency (RF) Device Network
11057077	7/6/2021	Controlled Power Transmission in Radio Frequency (RF) Device Network
11742895	8/29/2023	Controlled Power Transmission in Radio Frequency (RF) Device Network
10862559	12/8/2020	Signal Cancellation in Radio Frequency (RF) Device Network
11677450	6/13/2023	Signal Cancellation in Radio Frequency (RF) Device Network
10916861	2/9/2021	Three-Dimensional Antenna Array Module
11509067	11/22/2022	Three-Dimensional Antenna Array Module
11509066	11/22/2022	THREE DIMENSIONAL ANTENNA ARRAY MODULE
9935663	4/3/2018	Low-Loss Isolating Outphasing Power Combiner in a Radio Frequency Device
10243594	3/26/2019	Low-Loss Isolating Outphasing Power Combiner in a Radio Frequency Device
10484078	11/19/2019	RECONFIGURABLE AND MODULAR ACTIVE REPEATER DEVICE
10819415	10/27/2020	RECONFIGURABLE AND MODULAR ACTIVE REPEATER DEVICE
11018752	5/25/2021	RECONFIGURABLE AND MODULAR ACTIVE REPEATER DEVICE
11463154	10/4/2022	RECONFIGURABLE AND MODULAR ACTIVE REPEATER DEVICE
11695467	7/4/2023	RECONFIGURABLE AND MODULAR ACTIVE REPEATER DEVICE
10560179	2/11/2020	ACTIVE REPEATER DEVICE FOR OPERATIONAL MODE BASED BEAM PATTERN CHANGES FOR COMMUNICATION WITH A PLURALITY OF USER EQUIPMENT
11088756	8/10/2021	ACTIVE REPEATER DEVICE FOR OPERATIONAL MODE BASED BEAM PATTERN CHANGES FOR COMMUNICATION WITH A PLURALITY OF USER EQUIPMENT
11558105	1/17/2023	ACTIVE REPEATER DEVICE FOR OPERATIONAL MODE BASED BEAM PATTERN CHANGES FOR COMMUNICATION WITH A PLURALITY OF USER EQUIPMENT
10630373	4/21/2020	ACTIVE REPEATER DEVICE SHARED BY MULTIPLE SERVICE PROVIDERS TO FACILITATE COMMUNICATION WITH CUSTOMER PREMISES EQUIPMENT
11082123	8/3/2021	ACTIVE REPEATER DEVICE SHARED BY MULTIPLE SERVICE PROVIDERS TO FACILITATE COMMUNICATION WITH CUSTOMER PREMISES EQUIPMENT
11728881	8/15/2023	ACTIVE REPEATER DEVICE SHARED BY MULTIPLE SERVICE PROVIDERS TO FACILITATE COMMUNICATION WITH CUSTOMER PREMISES EQUIPMENT
10171115	1/1/2019	Outphasing Calibration in a Radio Frequency (RF) Transmitter Device

10530401	1/7/2020	Outphasing-Calibration in a Radio Frequency (RF) Transmitter Device
10917126	2/9/2021	Outphasing-Calibration in a Radio Frequency (RF) Transmitter Device
<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>	<u>Description</u>
11145986	10/12/2021	LENS-ENHANCED COMMUNICATION DEVICE
11742586	8/29/2023	LENS-ENHANCED COMMUNICATION DEVICE
11205855	12/21/2021	Lens-Enhanced Communication Device
11848496	12/19/2023	Lens-Enhanced Communication Device
11721910	8/8/2023	Lens-Enhanced Communication Device
10637159	4/28/2020	Waveguide Antenna Element-Based Beam Forming Phased Array Antenna System for Millimeter Wave Communication
11108167	8/31/2021	Waveguide Antenna Element-Based Beam Forming Phased Array Antenna System for Millimeter Wave Communication
11588254	2/21/2023	Waveguide Antenna Element-Based Beam Forming Phased Array Antenna System for Millimeter Wave Communication
11764486	9/19/2023	WAVEGUIDE ANTENNA ELEMENT BASED BEAM FORMING PHASED ARRAY ANTENNA SYSTEM FOR MILLIMETER WAVE COMMUNICATION
11088457	8/10/2021	WAVEGUIDE ANTENNA ELEMENT BASED BEAM FORMING PHASED ARRAY ANTENNA SYSTEM FOR MILLIMETER WAVE COMMUNICATION
11552401	1/10/2023	WAVEGUIDE ANTENNA ELEMENT BASED BEAM FORMING PHASED ARRAY ANTENNA SYSTEM FOR MILLIMETER WAVE COMMUNICATION
11721906	8/8/2023	BEAM FORMING PHASED ARRAY ANTENNA SYSTEM FOR MILLIMETER WAVE COMMUNICATION
10142096	11/27/2018	Axial Ratio and Cross-Polarization Calibration in Wireless Receiver
10291296	5/14/2019	Transceiver for Multi-Beam and Relay with 5G Application
10199717	2/5/2019	Phased Array Antenna Panel Having Reduced Passive Loss of Received Signals
11056764	7/6/2021	Phased Array Antenna Panel Having Reduced Passive Loss of Received Signals
11664582	5/30/2023	Phased Array Antenna Panel Having Reduced Passive Loss of Received Signals
11171691	11/9/2021	COMMUNICATION DEVICE AND METHOD FOR ECHO SIGNALS MANAGEMENT
11575411	2/7/2023	COMMUNICATION DEVICE AND METHOD FOR ECHO SIGNALS MANAGEMENT
10834724	11/10/2020	COMMUNICATION DEVICE AND METHOD FOR LOW-LATENCY INITIAL ACCESS TO NON-STANDALONE 5G NEW RADIO NETWORK
11470612	10/11/2022	COMMUNICATION DEVICE AND METHOD FOR LOW-LATENCY INITIAL ACCESS TO NON-STANDALONE 5G NEW RADIO NETWORK
11737074	8/22/2023	COMMUNICATION DEVICE AND METHOD FOR LOW-LATENCY INITIAL ACCESS TO NON-STANDALONE 5G NEW RADIO NETWORK
10785705	9/22/2020	LOW-POWER AND LOW-LATENCY NON-STANDALONE INITIAL ACCESS TO NEW RADIO CARRIER
11337140	5/17/2022	LOW-POWER AND LOW-LATENCY NON-STANDALONE INITIAL ACCESS TO NEW RADIO CARRIER
11785532	10/10/2023	LOW-POWER AND LOW-LATENCY NON-STANDALONE INITIAL ACCESS TO NEW RADIO CARRIER
11108168	8/31/2021	ANTENNA SYSTEM FOR PORTABLE COMMUNICATION DEVICE FOR MILLIMETER WAVE COMMUNICATION
10938347	3/2/2021	OUTPHASING POWER COMBINER
11309840	4/19/2022	OUTPHASING POWER COMBINER
11677355	6/13/2023	OUTPHASING POWER COMBINER
11038581	6/15/2021	INTEGRATED REPEATER SYSTEM AND METHOD TO OPERATE INTEGRATED REPEATER SYSTEM
11381301	7/5/2022	INTEGRATED REPEATER SYSTEM AND METHOD TO OPERATE INTEGRATED REPEATER SYSTEM

11770176	9/26/2023	INTEGRATED REPEATER SYSTEM AND METHOD TO OPERATE INTEGRATED REPEATER SYSTEM
<u>Registration/ Application Number</u>	<u>Registration/ Application Date</u>	<u>Description</u>
11026198	6/1/2021	5G SIGNALS DETECTION USING NEURAL NETWORK
11700585	7/11/2023	5G SIGNALS DETECTION USING NEURAL NETWORK
9923712	3/20/2018	Wireless Receiver with Axial Ratio and Cross-Polarization Calibration
10323943	6/18/2019	Wireless Receiver with Tracking Using Location, Heading, and Motion Sensors and Adaptive Power Detection
10290920	5/14/2019	Large Scale Integration and Control of Antennas with Master Chip and Front End Chips on a Single Antenna Panel
9813231	11/7/2017	Wireless Phased Array Receiver Using Low Resolution Analog-to-Digital Converters
9967087	5/8/2018	Wireless Receiver Using Low Resolution Analog-to-Digital Converters
10014567	7/3/2018	Novel Antenna Arrangements and Routing Configurations in Large Scale Integration of Antennas with Front End Chips in a Wireless Receiver
9692489	6/27/2017	Transceiver Using Novel Phased Array Antenna Panel for Concurrently Transmitting and Receiving Wireless Signals
10389412	8/20/2019	Wireless Transceiver for Multi-Beam and with 5G Application
10854995	12/1/2020	Wireless Transceiver Having Receive Antennas and Transmit Antennas with Orthogonal Polarizations in a Phased Array Antenna Panel
11394128	7/19/2022	Wireless Transceiver Having Receive Antennas and Transmit Antennas with Orthogonal Polarizations in a Phased Array Antenna Panel
11715890	8/1/2023	Wireless Transceiver Having Receive Antennas and Transmit Antennas with Orthogonal Polarizations in a Phased Array Antenna Panel
11502424	11/15/2022	Wireless Transceiver Having Receive Antennas and Transmit Antennas with Orthogonal Polarizations in a Phased Array Antenna Panel
11502425	11/15/2022	Wireless Transceiver Having Receive Antennas and Transmit Antennas with Orthogonal Polarizations in a Phased Array Antenna Panel
9813269	11/7/2017	Wireless Transceiver Having a Phased Array Antenna Panel for Transmitting Circularly-Polarized Signals with Modulated Angular Speed
10122404	11/6/2018	Wireless Transceiver for Transmitting Circularly-Polarized Signals with Modulated Angular Speed
9755601	9/5/2017	Wireless Receiver Having Improved Phase Shifting Schemes with Reduced Number of Phase Shifters
9948260	4/17/2018	Wireless Receiver with Reduced Number of Phase Shifters
10256537	4/9/2019	Lens-Enhanced Phased Array Antenna Panel
10135153	11/20/2018	Phased Array Antenna Panel with Configurable Slanted Antenna Rows
10389041	8/20/2019	Phased Array Antenna Panel with Enhanced Isolation and Reduced Loss
10062965	8/28/2018	Raised Antenna Patches with Air Dielectrics for Use in Large Scale Integration of Phased Array Antenna Panels
10298284	5/21/2019	Full Duplex Transceivers
10298275	5/21/2019	Outphasing Transmit and Receive Wireless Systems Having Dual-Polarized Antennas
10014887	7/3/2018	Outphasing Transmitters with Improved Wireless Transmission Performance and Manufacturability
10181866	1/15/2019	Multi-Beam Outphasing Transmitters
10355770	7/16/2019	Wireless Communications System Including an Omnidirectional Broad-Beam Relay RF Transmitter
5680782	2/19/2019	MOVANDI
11444684	9/13/2022	REPEATER DEVICE WITH MULTI-RANGE ANTENNA ARRAY AND METHOD OF OPERATION OF REPEATER DEVICE
11700052	7/11/2023	REPEATER DEVICE WITH MULTI-RANGE ANTENNA ARRAY AND METHOD OF OPERATION OF REPEATER DEVICE
11682846	6/20/2023	ANTENNA DEVICE WITH CELL STRUCTURE AND ARRAY OF ANTENNA DEVICES
11728862	8/15/2023	COMMUNICATION SYSTEM AND METHOD FOR REMOTE ANTENNA ARRAY-BASED HIGH-SPEED LOW-LATENCY 5G CELLULAR CONNECTIVITY

EXHIBIT D-1

Maskworks

[see attached]

EXHIBIT D-1

Maskworks

Production Device

Engineering

E&O

Mask Family	Mask Type	Fab Part Number	Fab	Device Number				Mask Status
280X		TMLM95A	TSMC	2801A0	2802C0	2803C0	2804B0	Active
RET1	Dedicated MPD	TMML42A	TSMC	2850B0	3950A0			Active
	Dedicated MPD	TMML42B	TSMC	2850B2	3950A2			Active
	Dedicated MPD	TMML42C	TSMC	2850B1	3950A1			Active
	Dedicated MPD	TMML42D	TSMC	2650A0	3950A3			Active
	Dedicated MPD	TMML42E	TSMC	2850B3	3950A4			Active
RET2	MLM	TMML71A	TSMC	2853B0	3953A0	3504A0	3554A0	Obsoleet
	MLM	TMML71D	TSMC	2853B1	3953A1	3504A1		Obsoleet
	MLM	TMML71E	TSMC	2653A0	3953A2	3554A1		Obsoleet
RET3	MLM	TMML72A	TSMC	2813A0	3913A0			Obsoleet
	MLM	TMML72B	TSMC	2613A0	3913A1			Obsoleet
RET4	MLM	TMPH62B	TSMC	3514A0				Obsoleet
	MLM	TMPH62B	TSMC	3564A0				Obsoleet
	Dedicated	TMPE04-A	TSMC	3504B0				Active
	Dedicated	TMPE04-B	TSMC	3554B0				Active
	Dedicated	TMPS40-A	TSMC	2850C0				Active
	Dedicated	TMPS40-B	TSMC	2650B0				Active
	Dedicated	TMPS41-A	TSMC	2853C0				Active
	Dedicated	TMPS41-B	TSMC	2653B0				Active
	Dedicated	TMPS42-A	TSMC	3953B0				Active
	MPW	MPW4R06	GF	6055A0				Obsoleet

PATENT

RECORDED: 06/21/2024

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