

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM716016

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
Venture Lending & Leasing VIII, Inc.		03/22/2022	Corporation: MARYLAND
Venture Lending & Leasing IX, Inc.		03/22/2022	Corporation: MARYLAND
RECEIVING PARTY DATA			
Name:	METAWAVE CORPORATION		
Street Address:	5993 Avenida Encinas		
Internal Address:	Suite 101		
City:	Carlsbad		
State/Country:	CALIFORNIA		
Postal Code:	92008		
Entity Type:	Corporation: DELAWARE		
PROPERTY NUMBERS Total: 7			
Property Type	Number	Word Mark	
Serial Number:	87803732	SABER	
Serial Number:	88040861	AWARE	
Serial Number:	88040988	AWAIRE	
Serial Number:	88126084	MARCONI	
Serial Number:	88164673	TURBO	
Serial Number:	87620013	METAWAVE	
Serial Number:	87631610	METAWAVE	
CORRESPONDENCE DATA			
Fax Number:	4153645540		
<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>			
Phone:	4159811400		
Email:	nsust@foxrothschild.com		
Correspondent Name:	Jeff Klugman		
Address Line 1:	345 California Street		
Address Line 2:	Suite 2200		
Address Line 4:	San Francisco, CALIFORNIA 94104		

OP \$190.00 87803732

NAME OF SUBMITTER:	Jeffrey T. Klugman
SIGNATURE:	/Jeffrey T. Klugman/
DATE SIGNED:	03/22/2022

Total Attachments: 37

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TERMINATION OF SECURITY INTEREST IN TRADEMARKS AND PATENTS

WHEREAS, Metawave Incorporated, a Delaware corporation with its principal place of business at 5993 Avenida Encinas Suite 101, Carlsbad, CA 92008 (the "**Grantor**"), is the owner of record of the **Trademark and Trademark applications** listed on the attached **Exhibit A**, now issued or pending in the United States Patent and Trademark Office (the "**Trademarks**"); and is the owner of record of the **Patents and Patent applications** listed on the attached **Exhibit B**, now issued or pending in the United States Patent and Trademark Office (the "Patents"); and

WHEREAS, the Grantor entered into that certain Security Agreement dated as of January 23, 2019 (the "**Security Agreement**"), between the Grantor and Venture Lending & Leasing IX (VLL-IX) and Venture Lending and Leasing VIII (VLL-VIII), both, ("**Secured Party**"), a true and correct copy of which was recorded by the **United States and Trademark Office for**

Trademarks on January 23, 2019, at Reel # 006534, Frame # 0369; and

Patents on January 23, 2019, at Reel # 048117, Frame # 0966;

WHEREAS, the Secured Party desires to release its security interest in the Trademarks and Patents and terminate the Security Agreement;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, Secured Party hereby:

- 1. releases and reassigns to the Grantor any and all liens, security interests, right, title and interest of Secured Party pursuant to the Security Agreement in the trademarks and applications more fully described on Exhibit A, without recourse or representation or warranty, express or implied; and
- 2. releases and reassigns to the Grantor any and all liens, security interests, right, title and interest of Secured Party pursuant to the Security Agreement in the patents and applications more fully described on Exhibit B, without recourse or representation or warranty, express or implied; and
- 3. authorizes and requests the Commissioner of Patents and Trademarks of the United States of America to note and record the existence of the release hereby given.

IN WITNESS WHEREOF, Secured Party has caused this Termination of Security Interest in Trademarks and Patents to be signed by its duly authorized representative as of this 22nd day of March, 2022.

Secured Party:

Venture Lending & Leasing VIII, INC.

By: Jon Beizer

Name: Jon Beizer

Title: Investment Partner

Secured Party:

Venture Lending & Leasing IX, INC.

By: Jon Beizer

Name: Jon Beizer

Title: Investment Partner

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is made as of January 23, 2019 between METAWAVE CORPORATION, a Delaware corporation ("Grantor"), and VENTURE LENDING & LEASING VIII, INC. ("VLL8") and VENTURE LENDING & LEASING IX, INC. ("VLL9"), both Maryland corporations (sometimes referred to herein individually and together as "Secured Party").

RECITALS

A. Pursuant to that certain Loan and Security Agreement of even date herewith between Grantor, as borrower, and Secured Party, as lender (as amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement"), Secured Party has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in the Loan Agreement. All capitalized terms used herein without definition shall have the meanings ascribed to them in the Loan Agreement.

B. Secured Party is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Secured Party a security interest in substantially all of Grantor's personal property whether presently existing or hereafter acquired. To that end, Grantor has executed in favor of Secured Party the Loan Agreement granting a security interest in all Collateral, and is executing this Agreement with respect to certain items of Intellectual Property, in particular:

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

I. Grant of Security Interest. As collateral security for the prompt and complete payment and performance of all of Grantor's present or future Obligations, Grantor hereby grants a security interest and mortgage to Secured Party, as security, in and to Grantor's entire right, title and interest in, to and under the following Intellectual Property, now owned or hereafter acquired by Grantor or in which Grantor now holds or hereafter acquires any interest (all of which shall collectively be called the "Collateral" for purposes of this Agreement):

(a) Any and all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof or of any other country; all registrations, applications and recordings in the United States Copyright Office or in any similar office or agency of the United States, and State thereof or any other country; all continuations, renewals, or extensions thereof; and any registrations to be issued under any pending applications, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) All letters patent of, or rights corresponding thereto in, the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto in, the United States or any other country, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country; all reissues, continuations, continuations-in-part or extensions thereof, all petty patents, divisionals, and patents of addition; and all patents to be issued under any such applications, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(c) All trademarks, trade names, corporate names, business names, trade styles, service marks, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and any applications in connection therewith, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof, and reissues,

extensions or renewals thereof, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents; and

(g) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding the foregoing the term "Collateral" shall not include: (a) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, but only to the extent the granting of a security interest in such "intent to use" trademarks would be contrary to applicable law or (b) any contract, instrument or chattel paper in which Grantor has any right, title or interest if and to the extent such contract, instrument or chattel paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Grantor therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, instrument or chattel paper to enforce any remedy with respect thereto; provided, however, that the foregoing exclusion shall not apply if (i) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, instrument or chattel paper, or (ii) such prohibition would be rendered ineffective pursuant to Sections 9-407(a) or 9-408(a) of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code or principles of equity); provided further that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "Collateral" shall include, and Grantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, instrument or chattel paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Secured Party's unconditional continuing security interest in and to all rights, title and interests of Grantor in or to any payment obligations or other rights to receive monies due or to become due under any such contract, instrument or chattel paper and in any such monies and other proceeds of such contract, instrument or chattel paper.

2. Covenants and Warranties. Grantor represents, warrants, covenants and agrees as follows:

(a) As of the date hereof, Grantor has rights (as defined in the UCC) in the Collateral, except for Permitted Liens;

(b) During the term of this Agreement, Grantor will not transfer or otherwise encumber any interest in the Collateral, except for Permitted Liens and except for transfers otherwise permitted under the Loan Agreement;

(c) To its knowledge, as of the date hereof, each of the Patents is valid and enforceable, and no part of the Collateral has been judged invalid or unenforceable, in whole or in part, and no claim has been made that any part of the Collateral violates the rights of any third party;

(d) Grantor shall deliver to Secured Party within thirty (30) days of the last day of each fiscal quarter, a report signed by Grantor, in form reasonably acceptable to Secured Party, listing (i) any applications or registrations that Grantor has made or filed in respect of any patents, copyrights or trademarks, (ii) the status of any outstanding applications or registrations and (iii) any material change in the composition of the Collateral;

(e) Grantor shall use reasonable commercial efforts to (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents and Copyrights, (ii) detect infringements of the Trademarks, Patents and Copyrights and promptly advise Secured Party in writing of material infringements detected, and (iii) not allow any material Trademarks, Patents or Copyrights to be abandoned, forfeited or dedicated to the public unless Grantor deems it to be in the best interest of Grantor's business;

(f) Grantor shall apply for registration (to the extent not already registered) with the United States Patent and Trademark Office or the United States Copyright Office, as applicable: (i) those intellectual property rights listed on Exhibits A, B and C hereto within thirty (30) days of the date of this Agreement; and (ii) those additional intellectual property rights developed or acquired by Grantor from time to time in connection with any product or service, prior to the sale or licensing of such product or the rendering of such service to any third party (including without limitation revisions or additions to the intellectual property rights listed on such Exhibits A, B and C), except, in each case, with respect to such rights that Grantor determines in its sole but reasonable commercial judgment need not be registered to protect its own business interests. Grantor shall, from time to time, execute and file such other instruments, and take such further actions as Secured Party may reasonably request from time to time to perfect or continue the perfection of Secured Party's interest in the Collateral; and

(g) Except as permitted under the Loan Agreement or this Agreement, Grantor shall not enter into any agreement that would materially impair or conflict with Grantor's obligations hereunder without Secured Party's prior written consent, which consent shall not be unreasonably withheld. Grantor shall use commercially reasonable efforts to avoid the inclusion in any material contract to which it becomes a party of any provisions that could reasonably be expected to prevent the creation of a security interest in Grantor's rights and interests in any property included within the definition of the Collateral acquired under such contracts, except for provisions in such material contracts as are referenced in the last paragraph of Section 1 of this Agreement.

3. Further Assurances; Attorney in Fact.

(a) On a continuing basis, Grantor will make, execute, acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademark Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as reasonably requested by Secured Party, to perfect Secured Party's security interest in all Copyrights, Patents and Trademarks and otherwise to carry out the intent and purposes of this Agreement, or for assuring and confirming to Secured Party the grant or perfection of a security interest in all Collateral.

(b) Grantor hereby irrevocably appoints Secured Party as Grantor's attorney-in-fact, with full authority in the place and stead of Grantor and in the name of Grantor, from time to time in Secured Party's discretion, to take any action and to execute any instrument which Secured Party may deem necessary or advisable to accomplish the purposes of this Agreement, including (i) to modify, in its sole discretion, this Agreement without first obtaining Grantor's approval of or signature to such modification by amending Exhibits A, B and C, hereof, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Grantor after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Grantor no longer has or claims any right, title or interest, (ii) to file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral without the signature of Grantor where permitted by law, and (iii) after the occurrence and during the continuance of an

Event of Default, to transfer the Collateral into the name of Secured Party or a third party to the extent permitted under the California Uniform Commercial Code.

4. Events of Default. The occurrence of any of the following shall constitute an Event of Default under this Agreement:

(a) An Event of Default under the Loan Agreement; or

(b) Grantor breaches in any material respect any warranty or agreement made by Grantor in this Agreement and, as to any breach that is capable of cure, Grantor fails to cure such breach within thirty (30) days of the sooner to occur of Grantor's receipt of notice of such breach from Secured Party or the date on which such breach first becomes known to Grantor.

5. Amendments. This Agreement may be amended only by a written instrument signed by both parties hereto, except for amendments permitted under Section 3 hereof to be made by Secured Party alone.

6. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. This Agreement may be executed by electronic signatures. Grantor and Secured Party expressly agree to conduct the transactions contemplated by this Agreement by electronic means (including, without limitation, with respect to the execution, delivery, storage and transfer of this Agreement by electronic means and to the enforceability of electronic Loan Documents). Delivery of an executed signature page to this Agreement by facsimile or other electronic mail transmission shall be effective as delivery of a manually executed counterpart hereof.

7. Several Nature of Secured Party's Obligations and Rights; Pari Passu Security Interests. This Agreement is and shall be interpreted for all purposes as separate and distinct agreements between Grantor and VLL8, on the one hand, and Grantor and VLL9, on the other hand, and nothing in this Agreement shall be deemed a joint venture, partnership or other association between VLL8 and VLL9. Each reference in this Agreement to "Secured Party" shall mean and refer to each of VLL8 and VLL9, singly and independent of one another. Without limiting the generality of the foregoing, the covenants and other obligations of "Secured Party" under this Agreement are several and not joint obligations of VLL8 and VLL9, and all rights and remedies of "Secured Party" under this Agreement may be exercised by VLL8 and/or VLL9 independently of one another. The security interests granted by Grantor to each of VLL8 and VLL9 hereunder and under the Loan Agreement shall be deemed to have been granted and perfected at the same time and shall be of equal priority.

[Signature Pages Follow]

[Signature page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

GRANTOR:

METAWAVE CORPORATION

By: Maha Achour
Name: Maha Achour
Title: Chief Executive Officer

Address for Notices:

5993 Avenida Encinas
Carlsbad, CA 92008
Attn: Chief Executive Officer

SECURED PARTY:

VENTURE LENDING & LEASING VIII, INC.

By: _____
Name: _____
Title: _____

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

SECURED PARTY:

VENTURE LENDING & LEASING IX, INC.

By: _____
Name: _____
Title: _____

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

[Signature page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

GRANTOR:

METAWAVE CORPORATION


By: _____
Name: _____
Title: _____

Address for Notices:

Attn: _____
Fax #: _____
Phone #: _____

SECURED PARTY:

VENTURE LENDING & LEASING VIII, INC.


By:  _____
Name: Maurice Werdegar
Title: President and CEO

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

SECURED PARTY:

VENTURE LENDING & LEASING IX, INC.

By:  _____
Name: Maurice Werdegar
Title: President and CEO

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

EXHIBIT A

Copyrights

Description

Registration Number

Registration Date

None

49013/0462
JTK/539284.2

EXHIBIT B

Patents

Description	Application No.	Application Date
METHOD AND APPARATUS FOR OBJECT DETECTION USING CONVOLUTIONAL NEURAL NETWORK SYSTEMS	62/613,675	1/4/18
METHOD AND APPARATUS FOR RADAR WAVEFORM USING ORTHOGONAL SEQUENCE SETS	62/617,528	1/15/18
METHOD AND APPARATUS FOR METAMATERIAL SWITCHED ANTENNA	62/618,045	1/16/18
METHOD AND APPARATUS FOR METAMATERIAL BASED PHASED-ARRAY ANTENNA AT HIGH FREQUENCY	62/625,233	2/1/18
METHOD AND APPARATUS FOR OBJECT DETECTION USING A METAMATERIAL ANTENNA AND CONVOLUTIONAL NEURAL NETWORK SYSTEM	62/626,569	2/5/18
METHOD AND APPARATUS FOR FIXED WIRELESS SYSTEM	62/643,114	3/14/18
METHOD AND APPARATUS FOR A METAMATERIAL ANTENNA SYSTEM	62/645,767	3/20/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/647,822	3/25/18
METHOD AND APPARATUS FOR ANTENNA WITH DECISION NETWORK CONTROL	62/651,050	3/30/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/651,247	4/1/18
METHOD AND APPARATUS FOR OBJECT DETECTION INCORPORATING METAMATERIAL ANTENNA SIDE LOBE FEATURES	62/656,903	4/12/18
METAMATERIAL ANTENNA SYSTEM FOR NEW GENERATION WIRELESS NETWORKS IN MOVING VEHICLES	62/659,130	4/17/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/660,159	4/19/18
DISTRIBUTED VARACTOR NETWORK WITH EXPANDED TUNING RANGE	62/660,216	4/19/18
METAMATERIAL ANTENNA SYSTEM WITH ADAPTIVE FREQUENCY-BASED POWER COMPENSATION	62/660,888	4/20/18
REINFORCEMENT LEARNING ENGINE FOR A RADAR SYSTEM	62/663,243	4/26/18
INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS	PCT/US18/30541	5/1/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/665,493	5/1/18

<u>Description</u>	<u>Application No.</u>	<u>Application Date</u>
NON-LINE-OF-SIGHT CORRECTION FOR TARGET DETECTION IN POINT CLOUDS	62/666,666	5/3/18
DOHERTY POWER AMPLIFIER WITH INTEGRATED SECOND HARMONIC INJECTION	62/668,781	5/8/18
INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS	15/977,888	5/11/18
INTELLIGENT METAMATERIAL RADAR FOR TARGET IDENTIFICATION	15/983,036	5/17/18
NODAL METAMATERIAL ANTENNA SYSTEM	15/984,222	5/18/18
METHOD AND APPARATUS FOR AN ORTHOGONAL ANTENNA ARRAY SYSTEM	62/673,814	5/18/18
INTELLIGENT METAMATERIAL ANTENNAS WITH TARGETED POLARIZATION FOR TARGET IDENTIFICATION	62/676,163	5/24/18
FREQUENCY-SELECTIVE REFLECTOR MODULE AND SYSTEM	62/675,917	5/24/18
PHASED ARRAY ANTENNA FOR USE WITH LOW EARTH ORBIT SATELLITE CONSTELLATIONS	62/677,599	5/29/18
FEED STRUCTURE FOR A METAMATERIAL ANTENNA SYSTEM	15/996,384	6/1/18
INTELLIGENT METAMATERIAL RADAR HAVING A DYNAMICALLY CONTROLLABLE ANTENNA	15/997,579	6/4/18
INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS	107119297	6/5/18
GEOGRAPHICALLY DISPARATE SENSOR FUSION FOR ENHANCED TARGET DETECTION AND IDENTIFICATION IN AUTONOMOUS VEHICLES	62/681,381	6/6/18
BEACON SYSTEM IN AN AUTONOMOUS VEHICLE RADAR FOR VEHICLE IDENTIFICATION	62/682,758	6/8/18
METAMATERIAL ANTENNA ARRAY HAVING AN APERTURE LAYER	62/684,173	6/12/18
HYBRID ANALOG AND DIGITAL BEAMFORMING AND METHOD THEREFOR	62/684,679	6/13/18
AUTOENCODER ASSISTED RADAR FOR TARGET IDENTIFICATION	62/684,688	6/13/18
VIRTUAL BEAM STEERING USING MIMO RADAR	62/684,859	6/14/18
HIGH FREQUENCY COMPONENTS FOR WIRELESS AND RADAR SYSTEM	62/685,861	6/15/18
SUPER-RESOLUTION RADAR FOR AUTONOMOUS VEHICLES	62/687,790	6/20/18

<u>Description</u>	<u>Application No.</u>	<u>Application Date</u>
MULTI-LAYER, MULTI-STEERING ANTENNA ARRAY FOR MILLIMETER WAVE APPLICATIONS	62/690,313	6/26/18
PHASE COMPENSATED MULTI-LAYER, MULTI-STEERING ANTENNA ARRAY FOR MILLIMETER WAVE APPLICATIONS	62/691,395	6/28/18
ANALOG BEAMFORMING ANTENNA FOR MILLIMETER WAVE APPLICATIONS	62/697,879	7/13/18
METHOD AND APPARATUS FOR WIRELESS SYSTEMS	62/700,706	7/19/18
HIGH GAIN RELAY ANTENNA SYSTEM WITH MULTIPLE PASSIVE REFLECT ARRAYS	62/702,304	7/23/18
DYNAMIC SUPPLY MODULATION POWER AMPLIFIER ARCHITECTURE FOR USE IN MILLIMETER WAVE APPLICATIONS	62/713,927	8/2/18
RECURRENT SUPER-RESOLUTION RADAR FOR AUTONOMOUS VEHICLES	62/713,998	8/2/18
METHOD AND APPARATUS FOR RADAR SYSTEM	62/765,178	8/17/18
MULTI-LAYER, MULTI-STEERING ANTENNA SYSTEM FOR AUTONOMOUS VEHICLES	62/765,152	8/17/18
DUAL-EDGE FED SLOTTED WAVEGUIDE ANTENNA FOR MILLIMETER WAVE APPLICATIONS	62/765,179	8/17/18
SMART INFRASTRUCTURE SENSING AND COMMUNICATION SYSTEM	16/115,521	8/28/18
METHOD AND APPARATUS FOR RADAR INFRASTRUCTURE	62/724,172	8/29/18
METHOD AND APPARATUS FOR A PASSIVE RADIATING AND FEED STRUCTURE	16/130,848	9/13/18
METHOD AND APPARATUS FOR AN ACTIVE RADIATING AND FEED STRUCTURE	16/130,872	9/13/18
VECTOR MODULATOR FOR USE IN MILLIMETER WAVE APPLICATIONS	62/735,550	9/24/18
ADAPTIVE RADAR FOR NEAR-FAR TARGET IDENTIFICATION	62/739,851	10/2/18
METHOD AND APPARATUS FOR PHASE UNWRAPPING RADAR DETECTIONS USING OPTICAL FLOW	62/743,406	10/9/18
METHOD AND APPARATUS FOR AN ACTIVE RADIATING AND FEED STRUCTURE	PCT/US18/35962	10/15/18

Description	Application No.	Application Date
METHOD AND APPARATUS FOR INTEGRATED CIRCUIT TRANSITION ELEMENTS	62/747,131	10/17/18
METHOD AND APPARATUS FOR NON-LINE-OF-SIGHT DETECTION AND CODED RADAR SIGNALS	62/751,005	10/26/18
RANGE ADAPTABLE ANTENNA SYSTEM FOR AUTONOMOUS VEHICLES	62/752,258	10/29/18
HIGH GAIN ACTIVE RELAY ANTENNA SYSTEM	62/753,745	10/31/18
POWER DIVISION IN ANTENNA SYSTEMS FOR MILLIMETER WAVE APPLICATIONS	16/183,689	11/7/18
METHOD AND APPARATUS FOR INTERNAL AND EXTERNAL ENVIRONMENTAL DETECTION IN A RADAR SYSTEM	62/760,461	11/13/18
METHOD AND APPARATUS FOR WIRELESS CHARGING OF A MOBILE DEVICE	16/192,554	11/15/18
OPTICALLY TRANSPARENT AND QUASI-TRANSPARENT REFLECTARRAYS FOR 5G APPLICATIONS	62/768,019	11/15/18
METHOD AND APPARATUS FOR CODED RADAR SIGNALS	62/768,621	11/16/18
METHOD AND APPARATUS FOR A TILED REFLECTOR FOR FIXED WIRELESS APPLICATIONS	62/768,931	11/18/18
METHOD AND APPARATUS FOR A FREQUENCY-SELECTIVE ANTENNA	16/195,792	11/19/18
METHOD AND APPARATUS FOR INTERNAL AND EXTERNAL ENVIRONMENTAL DETECTION IN A RADAR SYSTEM	62/770,076	11/20/18
METHOD AND APPARATUS FOR REACTANCE CONTROL IN A TRANSMISSION LINE	16/201,990	11/27/18
METHOD AND APPARATUS FOR A METASTRUCTURE REFLECTOR IN A WIRELESS COMMUNICATION SYSTEM	16/203,353	11/28/18
METHOD AND APPARATUS FOR A MULTI-FREQUENCY ELECTROMAGNETIC FEED LINE	62/772,172	11/28/18
METHOD AND APPARATUS FOR OBJECT DETECTION WITH INTEGRATED ENVIRONMENTAL INFORMATION	16/208,496	12/3/18

EXHIBIT C

Trademarks

Description	Application No.	Application Date	Country
WARLORD (standard character)	1888837	3/19/18	CA
WARLORD (standard character)	29693828	3/20/18	CN
WARLORD (standard character)	1408881	3/19/18	EM
WARLORD (standard character)	A0074419	3/19/18	WP
WARLORD (standard character)	1408881	3/19/18	JP
WARLORD (standard character)	1408881	3/19/18	KR
WARLORD (standard character)	2025334	3/21/18	MX
WARLORD (standard character)	107016961	3/20/18	TW
WARLORD (standard character)	87617137	9/21/17	US
Metawave (standard character)	1888838	3/19/18	CA
Metawave (standard character)		3/23/18	CN
Metawave (standard character)		3/28/18	CN
Metawave (standard character)		3/23/18	CN
Metawave (standard character)	1408137	3/19/18	EM
Metawave (standard character)	A0074425	3/19/18	WP
Metawave (standard character)	A0074425	3/19/18	JP
Metawave (standard character)	1408137	3/19/18	KR
Metawave (standard character)	2027084	3/23/18	MX
Metawave (standard character)	2027086	3/23/18	MX
Metawave (standard character)	2027087	3/23/18	MX
Metawave (standard character)	2027089	3/23/18	MX
Metawave (standard character)	107018060	3/22/18	TW
Metawave (standard character)	87620013	9/23/17	US
METAWAVE (Design-color)	1890769	3/28/18	CA
METAWAVE (Design-color)	29938196	3/30/18	CN
METAWAVE (Design-color)	30131280	4/10/18	CN
METAWAVE (Design-color)	30131279	4/10/18	CN
METAWAVE (Design-color)	A0074748	4/2/18	EM
METAWAVE (Design-color)	A0074748	4/2/18	WP
METAWAVE (Design-color)	A0074748	4/2/18	JP
METAWAVE (Design-color)	A0074748	4/2/18	KR

Description	Application No.	Application Date	Country
META WAVE (Design-color)	2029169	4/2/18	MX
META WAVE (Design-color)	2029170	4/2/18	MX
META WAVE (Design-color)	2029171	4/2/18	MX
META WAVE (Design-color)	107020069	3/31/18	TW
META WAVE (Design-color)	87630982	10/2/17	US
META WAVE (Design-bw)	1890768	3/28/18	CA
META WAVE (Design-bw)	29938195	3/30/18	CN
META WAVE (Design-bw)	30131278	4/10/18	CN
META WAVE (Design-bw)	30131277	4/10/18	CN
META WAVE (Design-bw)	A0074749	4/2/18	EM
META WAVE (Design-bw)	A0074749	4/2/18	WP
META WAVE (Design-bw)	A0074749	4/2/18	JP
META WAVE (Design-bw)	A0074749	4/2/18	KR
META WAVE (Design-bw)	2029172	4/2/18	MX
META WAVE (Design-bw)	2029174	4/2/18	MX
META WAVE (Design-bw)	2029178	4/2/18	MX
META WAVE (Design-bw)	107020071	3/31/18	TW
META WAVE (Design-bw)	87631610	10/3/17	US
SABER (standard character)	1890770	3/28/18	CA
SABER (standard character)	30162301	4/11/18	CN
SABER (standard character)		4/11/18	CN
SABER (standard character)	30162299	4/11/18	CN
SABER (standard character)	A0074848	4/4/18	EM
SABER (standard character)	A0074848	4/4/18	WP
SABER (standard character)	A0074848	4/4/18	JP
SABER (standard character)	A0074848	4/4/18	KR
SABER (standard character)	2033000	4/10/18	MX
SABER (standard character)	2033003	4/10/18	MX
SABER (standard character)	2033006	4/10/18	MX
SABER (standard character)	107026834	5/2/18	TW
SABER (standard character)	87803732	2/20/18	US
AWARE (standard character)	88040861	7/17/18	US
AWARE (standard character)	88040988	7/17/18	US
MARCONI	88126084	9/20/18	US

<u>Description</u>	<u>Application No.</u>	<u>Application Date</u>	<u>Country</u>
TURBO	88164673	10/22/18	US

49013/0462
JTK/539284.2

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (this "Agreement") is made as of January 23, 2019 between METAWAVE CORPORATION, a Delaware corporation ("Grantor"), and VENTURE LENDING & LEASING VIII, INC. ("VLL8") and VENTURE LENDING & LEASING IX, INC. ("VLL9"), both Maryland corporations (sometimes referred to herein individually and together as "Secured Party").

RECITALS

A. Pursuant to that certain Loan and Security Agreement of even date herewith between Grantor, as borrower, and Secured Party, as lender (as amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement"), Secured Party has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in the Loan Agreement. All capitalized terms used herein without definition shall have the meanings ascribed to them in the Loan Agreement.

B. Secured Party is willing to make the Loans to Grantor, but only upon the condition, among others, that Grantor shall grant to Secured Party a security interest in substantially all of Grantor's personal property whether presently existing or hereafter acquired. To that end, Grantor has executed in favor of Secured Party the Loan Agreement granting a security interest in all Collateral, and is executing this Agreement with respect to certain items of Intellectual Property, in particular:

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

I. Grant of Security Interest. As collateral security for the prompt and complete payment and performance of all of Grantor's present or future Obligations, Grantor hereby grants a security interest and mortgage to Secured Party, as security, in and to Grantor's entire right, title and interest in, to and under the following Intellectual Property, now owned or hereafter acquired by Grantor or in which Grantor now holds or hereafter acquires any interest (all of which shall collectively be called the "Collateral" for purposes of this Agreement):

(a) Any and all copyrights, whether registered or unregistered, held pursuant to the laws of the United States, any State thereof or of any other country; all registrations, applications and recordings in the United States Copyright Office or in any similar office or agency of the United States, and State thereof or any other country; all continuations, renewals, or extensions thereof; and any registrations to be issued under any pending applications, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) All letters patent of, or rights corresponding thereto in, the United States or any other country, all registrations and recordings thereof, and all applications for letters patent of, or rights corresponding thereto in, the United States or any other country, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country; all reissues, continuations, continuations-in-part or extensions thereof, all petty patents, divisionals, and patents of addition; and all patents to be issued under any such applications, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(c) All trademarks, trade names, corporate names, business names, trade styles, service marks, logos, other source or business identifiers, prints and labels on which any of the foregoing have appeared or appear, designs and general intangibles of like nature, now existing or hereafter adopted or acquired, all registrations and recordings thereof, and any applications in connection therewith, including, without limitation, registrations, recordings and applications in the United States Patent and Trademark Office or in any similar office or agency of the United States, any State thereof or any other country or any political subdivision thereof, and reissues,

extensions or renewals thereof, and the entire goodwill of the business of Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents; and

(g) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

Notwithstanding the foregoing the term "Collateral" shall not include: (a) "intent-to-use" trademarks at all times prior to the first use thereof, whether by the actual use thereof in commerce, the recording of a statement of use with the United States Patent and Trademark Office or otherwise, but only to the extent the granting of a security interest in such "intent to use" trademarks would be contrary to applicable law or (b) any contract, instrument or chattel paper in which Grantor has any right, title or interest if and to the extent such contract, instrument or chattel paper includes a provision containing a restriction on assignment such that the creation of a security interest in the right, title or interest of Grantor therein would be prohibited and would, in and of itself, cause or result in a default thereunder enabling another person party to such contract, instrument or chattel paper to enforce any remedy with respect thereto; provided, however, that the foregoing exclusion shall not apply if (i) such prohibition has been waived or such other person has otherwise consented to the creation hereunder of a security interest in such contract, instrument or chattel paper, or (ii) such prohibition would be rendered ineffective pursuant to Sections 9-407(a) or 9-408(a) of the UCC, as applicable and as then in effect in any relevant jurisdiction, or any other applicable law (including the Bankruptcy Code or principles of equity); provided further that immediately upon the ineffectiveness, lapse or termination of any such provision, the term "Collateral" shall include, and Grantor shall be deemed to have granted a security interest in, all its rights, title and interests in and to such contract, instrument or chattel paper as if such provision had never been in effect; and provided further that the foregoing exclusion shall in no way be construed so as to limit, impair or otherwise affect Secured Party's unconditional continuing security interest in and to all rights, title and interests of Grantor in or to any payment obligations or other rights to receive monies due or to become due under any such contract, instrument or chattel paper and in any such monies and other proceeds of such contract, instrument or chattel paper.

2. Covenants and Warranties. Grantor represents, warrants, covenants and agrees as follows:

(a) As of the date hereof, Grantor has rights (as defined in the UCC) in the Collateral, except for Permitted Liens;

(b) During the term of this Agreement, Grantor will not transfer or otherwise encumber any interest in the Collateral, except for Permitted Liens and except for transfers otherwise permitted under the Loan Agreement;

(c) To its knowledge, as of the date hereof, each of the Patents is valid and enforceable, and no part of the Collateral has been judged invalid or unenforceable, in whole or in part, and no claim has been made that any part of the Collateral violates the rights of any third party;

(d) Grantor shall deliver to Secured Party within thirty (30) days of the last day of each fiscal quarter, a report signed by Grantor, in form reasonably acceptable to Secured Party, listing (i) any applications or registrations that Grantor has made or filed in respect of any patents, copyrights or trademarks, (ii) the status of any outstanding applications or registrations and (iii) any material change in the composition of the Collateral;

(e) Grantor shall use reasonable commercial efforts to (i) protect, defend and maintain the validity and enforceability of the Trademarks, Patents and Copyrights, (ii) detect infringements of the Trademarks, Patents and Copyrights and promptly advise Secured Party in writing of material infringements detected, and (iii) not allow any material Trademarks, Patents or Copyrights to be abandoned, forfeited or dedicated to the public unless Grantor deems it to be in the best interest of Grantor's business;

(f) Grantor shall apply for registration (to the extent not already registered) with the United States Patent and Trademark Office or the United States Copyright Office, as applicable: (i) those intellectual property rights listed on Exhibits A, B and C hereto within thirty (30) days of the date of this Agreement; and (ii) those additional intellectual property rights developed or acquired by Grantor from time to time in connection with any product or service, prior to the sale or licensing of such product or the rendering of such service to any third party (including without limitation revisions or additions to the intellectual property rights listed on such Exhibits A, B and C), except, in each case, with respect to such rights that Grantor determines in its sole but reasonable commercial judgment need not be registered to protect its own business interests. Grantor shall, from time to time, execute and file such other instruments, and take such further actions as Secured Party may reasonably request from time to time to perfect or continue the perfection of Secured Party's interest in the Collateral; and

(g) Except as permitted under the Loan Agreement or this Agreement, Grantor shall not enter into any agreement that would materially impair or conflict with Grantor's obligations hereunder without Secured Party's prior written consent, which consent shall not be unreasonably withheld. Grantor shall use commercially reasonable efforts to avoid the inclusion in any material contract to which it becomes a party of any provisions that could reasonably be expected to prevent the creation of a security interest in Grantor's rights and interests in any property included within the definition of the Collateral acquired under such contracts, except for provisions in such material contracts as are referenced in the last paragraph of Section 1 of this Agreement.

3. Further Assurances; Attorney in Fact.

(a) On a continuing basis, Grantor will make, execute, acknowledge and deliver, and file and record in the proper filing and recording places in the United States, all such instruments, including appropriate financing and continuation statements and collateral agreements and filings with the United States Patent and Trademark Office and the Register of Copyrights, and take all such action as may reasonably be deemed necessary or advisable, or as reasonably requested by Secured Party, to perfect Secured Party's security interest in all Copyrights, Patents and Trademarks and otherwise to carry out the intent and purposes of this Agreement, or for assuring and confirming to Secured Party the grant or perfection of a security interest in all Collateral.

(b) Grantor hereby irrevocably appoints Secured Party as Grantor's attorney-in-fact, with full authority in the place and stead of Grantor and in the name of Grantor, from time to time in Secured Party's discretion, to take any action and to execute any instrument which Secured Party may deem necessary or advisable to accomplish the purposes of this Agreement, including (i) to modify, in its sole discretion, this Agreement without first obtaining Grantor's approval of or signature to such modification by amending Exhibits A, B and C, hereof, as appropriate, to include reference to any right, title or interest in any Copyrights, Patents or Trademarks acquired by Grantor after the execution hereof or to delete any reference to any right, title or interest in any Copyrights, Patents or Trademarks in which Grantor no longer has or claims any right, title or interest, (ii) to file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral without the signature of Grantor where permitted by law, and (iii) after the occurrence and during the continuance of an

Event of Default, to transfer the Collateral into the name of Secured Party or a third party to the extent permitted under the California Uniform Commercial Code.

4. Events of Default. The occurrence of any of the following shall constitute an Event of Default under this Agreement:

(a) An Event of Default under the Loan Agreement; or

(b) Grantor breaches in any material respect any warranty or agreement made by Grantor in this Agreement and, as to any breach that is capable of cure, Grantor fails to cure such breach within thirty (30) days of the sooner to occur of Grantor's receipt of notice of such breach from Secured Party or the date on which such breach first becomes known to Grantor.

5. Amendments. This Agreement may be amended only by a written instrument signed by both parties hereto, except for amendments permitted under Section 3 hereof to be made by Secured Party alone.

6. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. This Agreement may be executed by electronic signatures. Grantor and Secured Party expressly agree to conduct the transactions contemplated by this Agreement by electronic means (including, without limitation, with respect to the execution, delivery, storage and transfer of this Agreement by electronic means and to the enforceability of electronic Loan Documents). Delivery of an executed signature page to this Agreement by facsimile or other electronic mail transmission shall be effective as delivery of a manually executed counterpart hereof.

7. Several Nature of Secured Party's Obligations and Rights; Pari Passu Security Interests. This Agreement is and shall be interpreted for all purposes as separate and distinct agreements between Grantor and VLL8, on the one hand, and Grantor and VLL9, on the other hand, and nothing in this Agreement shall be deemed a joint venture, partnership or other association between VLL8 and VLL9. Each reference in this Agreement to "Secured Party" shall mean and refer to each of VLL8 and VLL9, singly and independent of one another. Without limiting the generality of the foregoing, the covenants and other obligations of "Secured Party" under this Agreement are several and not joint obligations of VLL8 and VLL9, and all rights and remedies of "Secured Party" under this Agreement may be exercised by VLL8 and/or VLL9 independently of one another. The security interests granted by Grantor to each of VLL8 and VLL9 hereunder and under the Loan Agreement shall be deemed to have been granted and perfected at the same time and shall be of equal priority.

[Signature Pages Follow]

[Signature page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

GRANTOR:

METAWAVE CORPORATION

By: Maha Achour
Name: Maha Achour
Title: Chief Executive Officer

Address for Notices:

5993 Avenida Encinas
Carlsbad, CA 92008
Attn: Chief Executive Officer

SECURED PARTY:

VENTURE LENDING & LEASING VIII, INC.

By: _____
Name: _____
Title: _____

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

SECURED PARTY:

VENTURE LENDING & LEASING IX, INC.

By: _____
Name: _____
Title: _____

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

[Signature page to Intellectual Property Security Agreement]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

GRANTOR:

METAWAVE CORPORATION

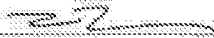
By: _____
Name: _____
Title: _____

Address for Notices:

Attn: _____
Fax #: _____
Phone #: _____

SECURED PARTY:

VENTURE LENDING & LEASING VIII, INC.


By:  _____
Name: Maurice Werdegar
Title: President and CEO

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

SECURED PARTY:

VENTURE LENDING & LEASING IX, INC.

By:  _____
Name: Maurice Werdegar
Title: President and CEO

Address for Notices:

104 La Mesa Dr., Suite 102
Portola Valley, CA 94028
Attn: Chief Financial Officer
Fax # 650-234-4343
Phone # 650-234-4300

EXHIBIT A

Copyrights

Description

Registration Number

Registration Date

None

49013/0462
JTK/539284.2

EXHIBIT B

Patents

Description	Application No.	Application Date
METHOD AND APPARATUS FOR OBJECT DETECTION USING CONVOLUTIONAL NEURAL NETWORK SYSTEMS	62/613,675	1/4/18
METHOD AND APPARATUS FOR RADAR WAVEFORM USING ORTHOGONAL SEQUENCE SETS	62/617,528	1/15/18
METHOD AND APPARATUS FOR METAMATERIAL SWITCHED ANTENNA	62/618,045	1/16/18
METHOD AND APPARATUS FOR METAMATERIAL BASED PHASED-ARRAY ANTENNA AT HIGH FREQUENCY	62/625,233	2/1/18
METHOD AND APPARATUS FOR OBJECT DETECTION USING A METAMATERIAL ANTENNA AND CONVOLUTIONAL NEURAL NETWORK SYSTEM	62/626,569	2/5/18
METHOD AND APPARATUS FOR FIXED WIRELESS SYSTEM	62/643,114	3/14/18
METHOD AND APPARATUS FOR A METAMATERIAL ANTENNA SYSTEM	62/645,767	3/20/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/647,822	3/25/18
METHOD AND APPARATUS FOR ANTENNA WITH DECISION NETWORK CONTROL	62/651,050	3/30/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/651,247	4/1/18
METHOD AND APPARATUS FOR OBJECT DETECTION INCORPORATING METAMATERIAL ANTENNA SIDE LOBE FEATURES	62/656,903	4/12/18
METAMATERIAL ANTENNA SYSTEM FOR NEW GENERATION WIRELESS NETWORKS IN MOVING VEHICLES	62/659,130	4/17/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/660,159	4/19/18
DISTRIBUTED VARACTOR NETWORK WITH EXPANDED TUNING RANGE	62/660,216	4/19/18
METAMATERIAL ANTENNA SYSTEM WITH ADAPTIVE FREQUENCY-BASED POWER COMPENSATION	62/660,888	4/20/18
REINFORCEMENT LEARNING ENGINE FOR A RADAR SYSTEM	62/663,243	4/26/18
INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS	PCT/US18/30541	5/1/18
METHOD AND APPARATUS FOR METAMATERIAL ANTENNA ARRAY	62/665,493	5/1/18

<u>Description</u>	<u>Application No.</u>	<u>Application Date</u>
NON-LINE-OF-SIGHT CORRECTION FOR TARGET DETECTION IN POINT CLOUDS	62/666,666	5/3/18
DOHERTY POWER AMPLIFIER WITH INTEGRATED SECOND HARMONIC INJECTION	62/668,781	5/8/18
INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS	15/977,888	5/11/18
INTELLIGENT METAMATERIAL RADAR FOR TARGET IDENTIFICATION	15/983,036	5/17/18
NODAL METAMATERIAL ANTENNA SYSTEM	15/984,222	5/18/18
METHOD AND APPARATUS FOR AN ORTHOGONAL ANTENNA ARRAY SYSTEM	62/673,814	5/18/18
INTELLIGENT METAMATERIAL ANTENNAS WITH TARGETED POLARIZATION FOR TARGET IDENTIFICATION	62/676,163	5/24/18
FREQUENCY-SELECTIVE REFLECTOR MODULE AND SYSTEM	62/675,917	5/24/18
PHASED ARRAY ANTENNA FOR USE WITH LOW EARTH ORBIT SATELLITE CONSTELLATIONS	62/677,599	5/29/18
FEED STRUCTURE FOR A METAMATERIAL ANTENNA SYSTEM	15/996,384	6/1/18
INTELLIGENT METAMATERIAL RADAR HAVING A DYNAMICALLY CONTROLLABLE ANTENNA	15/997,579	6/4/18
INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS	107119297	6/5/18
GEOGRAPHICALLY DISPARATE SENSOR FUSION FOR ENHANCED TARGET DETECTION AND IDENTIFICATION IN AUTONOMOUS VEHICLES	62/681,381	6/6/18
BEACON SYSTEM IN AN AUTONOMOUS VEHICLE RADAR FOR VEHICLE IDENTIFICATION	62/682,758	6/8/18
METAMATERIAL ANTENNA ARRAY HAVING AN APERTURE LAYER	62/684,173	6/12/18
HYBRID ANALOG AND DIGITAL BEAMFORMING AND METHOD THEREFOR	62/684,679	6/13/18
AUTOENCODER ASSISTED RADAR FOR TARGET IDENTIFICATION	62/684,688	6/13/18
VIRTUAL BEAM STEERING USING MIMO RADAR	62/684,859	6/14/18
HIGH FREQUENCY COMPONENTS FOR WIRELESS AND RADAR SYSTEM	62/685,861	6/15/18
SUPER-RESOLUTION RADAR FOR AUTONOMOUS VEHICLES	62/687,790	6/20/18

<u>Description</u>	<u>Application No.</u>	<u>Application Date</u>
MULTI-LAYER, MULTI-STEERING ANTENNA ARRAY FOR MILLIMETER WAVE APPLICATIONS	62/690,313	6/26/18
PHASE COMPENSATED MULTI-LAYER, MULTI-STEERING ANTENNA ARRAY FOR MILLIMETER WAVE APPLICATIONS	62/691,395	6/28/18
ANALOG BEAMFORMING ANTENNA FOR MILLIMETER WAVE APPLICATIONS	62/697,879	7/13/18
METHOD AND APPARATUS FOR WIRELESS SYSTEMS	62/700,706	7/19/18
HIGH GAIN RELAY ANTENNA SYSTEM WITH MULTIPLE PASSIVE REFLECT ARRAYS	62/702,304	7/23/18
DYNAMIC SUPPLY MODULATION POWER AMPLIFIER ARCHITECTURE FOR USE IN MILLIMETER WAVE APPLICATIONS	62/713,927	8/2/18
RECURRENT SUPER-RESOLUTION RADAR FOR AUTONOMOUS VEHICLES	62/713,998	8/2/18
METHOD AND APPARATUS FOR RADAR SYSTEM	62/765,178	8/17/18
MULTI-LAYER, MULTI-STEERING ANTENNA SYSTEM FOR AUTONOMOUS VEHICLES	62/765,152	8/17/18
DUAL-EDGE FED SLOTTED WAVEGUIDE ANTENNA FOR MILLIMETER WAVE APPLICATIONS	62/765,179	8/17/18
SMART INFRASTRUCTURE SENSING AND COMMUNICATION SYSTEM	16/115,521	8/28/18
METHOD AND APPARATUS FOR RADAR INFRASTRUCTURE	62/724,172	8/29/18
METHOD AND APPARATUS FOR A PASSIVE RADIATING AND FEED STRUCTURE	16/130,848	9/13/18
METHOD AND APPARATUS FOR AN ACTIVE RADIATING AND FEED STRUCTURE	16/130,872	9/13/18
VECTOR MODULATOR FOR USE IN MILLIMETER WAVE APPLICATIONS	62/735,550	9/24/18
ADAPTIVE RADAR FOR NEAR-FAR TARGET IDENTIFICATION	62/739,851	10/2/18
METHOD AND APPARATUS FOR PHASE UNWRAPPING RADAR DETECTIONS USING OPTICAL FLOW	62/743,406	10/9/18
METHOD AND APPARATUS FOR AN ACTIVE RADIATING AND FEED STRUCTURE	PCT/US18/35962	10/15/18

Description	Application No.	Application Date
METHOD AND APPARATUS FOR INTEGRATED CIRCUIT TRANSITION ELEMENTS	62/747,131	10/17/18
METHOD AND APPARATUS FOR NON-LINE-OF-SIGHT DETECTION AND CODED RADAR SIGNALS	62/751,005	10/26/18
RANGE ADAPTABLE ANTENNA SYSTEM FOR AUTONOMOUS VEHICLES	62/752,258	10/29/18
HIGH GAIN ACTIVE RELAY ANTENNA SYSTEM	62/753,745	10/31/18
POWER DIVISION IN ANTENNA SYSTEMS FOR MILLIMETER WAVE APPLICATIONS	16/183,689	11/7/18
METHOD AND APPARATUS FOR INTERNAL AND EXTERNAL ENVIRONMENTAL DETECTION IN A RADAR SYSTEM	62/760,461	11/13/18
METHOD AND APPARATUS FOR WIRELESS CHARGING OF A MOBILE DEVICE	16/192,554	11/15/18
OPTICALLY TRANSPARENT AND QUASI-TRANSPARENT REFLECTARRAYS FOR 5G APPLICATIONS	62/768,019	11/15/18
METHOD AND APPARATUS FOR CODED RADAR SIGNALS	62/768,621	11/16/18
METHOD AND APPARATUS FOR A TILED REFLECTOR FOR FIXED WIRELESS APPLICATIONS	62/768,931	11/18/18
METHOD AND APPARATUS FOR A FREQUENCY-SELECTIVE ANTENNA	16/195,792	11/19/18
METHOD AND APPARATUS FOR INTERNAL AND EXTERNAL ENVIRONMENTAL DETECTION IN A RADAR SYSTEM	62/770,076	11/20/18
METHOD AND APPARATUS FOR REACTANCE CONTROL IN A TRANSMISSION LINE	16/201,990	11/27/18
METHOD AND APPARATUS FOR A METASTRUCTURE REFLECTOR IN A WIRELESS COMMUNICATION SYSTEM	16/203,353	11/28/18
METHOD AND APPARATUS FOR A MULTI-FREQUENCY ELECTROMAGNETIC FEED LINE	62/772,172	11/28/18
METHOD AND APPARATUS FOR OBJECT DETECTION WITH INTEGRATED ENVIRONMENTAL INFORMATION	16/208,496	12/3/18

EXHIBIT C

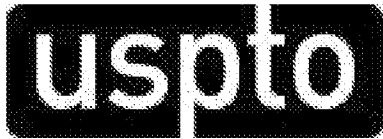
Trademarks

Description	Application No.	Application Date	Country
WARLORD (standard character)	1888837	3/19/18	CA
WARLORD (standard character)	29693828	3/20/18	CN
WARLORD (standard character)	1408881	3/19/18	EM
WARLORD (standard character)	A0074419	3/19/18	WP
WARLORD (standard character)	1408881	3/19/18	JP
WARLORD (standard character)	1408881	3/19/18	KR
WARLORD (standard character)	2025334	3/21/18	MX
WARLORD (standard character)	107016961	3/20/18	TW
WARLORD (standard character)	87617137	9/21/17	US
Metawave (standard character)	1888838	3/19/18	CA
Metawave (standard character)		3/23/18	CN
Metawave (standard character)		3/28/18	CN
Metawave (standard character)		3/23/18	CN
Metawave (standard character)	1408137	3/19/18	EM
Metawave (standard character)	A0074425	3/19/18	WP
Metawave (standard character)	A0074425	3/19/18	JP
Metawave (standard character)	1408137	3/19/18	KR
Metawave (standard character)	2027084	3/23/18	MX
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Metawave (standard character)	2027089	3/23/18	MX
Metawave (standard character)	107018060	3/22/18	TW
Metawave (standard character)	87620013	9/23/17	US
METAWAVE (Design-color)	1890769	3/28/18	CA
METAWAVE (Design-color)	29938196	3/30/18	CN
METAWAVE (Design-color)	30131280	4/10/18	CN
METAWAVE (Design-color)	30131279	4/10/18	CN
METAWAVE (Design-color)	A0074748	4/2/18	EM
METAWAVE (Design-color)	A0074748	4/2/18	WP
METAWAVE (Design-color)	A0074748	4/2/18	JP
METAWAVE (Design-color)	A0074748	4/2/18	KR

Description	Application No.	Application Date	Country
METAWAVE (Design-color)	2029169	4/2/18	MX
METAWAVE (Design-color)	2029170	4/2/18	MX
METAWAVE (Design-color)	2029171	4/2/18	MX
METAWAVE (Design-color)	107020069	3/31/18	TW
METAWAVE (Design-color)	87630982	10/2/17	US
METAWAVE (Design-bw)	1890768	3/28/18	CA
METAWAVE (Design-bw)	29938195	3/30/18	CN
METAWAVE (Design-bw)	30131278	4/10/18	CN
METAWAVE (Design-bw)	30131277	4/10/18	CN
METAWAVE (Design-bw)	A0074749	4/2/18	EM
METAWAVE (Design-bw)	A0074749	4/2/18	WP
METAWAVE (Design-bw)	A0074749	4/2/18	JP
METAWAVE (Design-bw)	A0074749	4/2/18	KR
METAWAVE (Design-bw)	2029172	4/2/18	MX
METAWAVE (Design-bw)	2029174	4/2/18	MX
METAWAVE (Design-bw)	2029178	4/2/18	MX
METAWAVE (Design-bw)	107020071	3/31/18	TW
METAWAVE (Design-bw)	87631610	10/3/17	US
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SABER (standard character)	A0074848	4/4/18	KR
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SABER (standard character)	2033006	4/10/18	MX
SABER (standard character)	107026834	5/2/18	TW
SABER (standard character)	87803732	2/20/18	US
AWAIRE (standard character)	88040861	7/17/18	US
AWAIRE (standard character)	88040988	7/17/18	US
MARCONI	88126084	9/20/18	US

<u>Description</u>	<u>Application No.</u>	<u>Application Date</u>	<u>Country</u>
TURBO	88164673	10/22/18	US

49013/0462
JTK/539284.2



Patent assignment 048117/0966

SECURITY INTEREST (SEE DOCUMENT FOR DETAILS).

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Pages

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Assignors

METAWAVE CORPORATION

Execution Date

Jan 23, 2019

Assignee

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Properties (14 of 14 total)

Patent	Publication	Application	PCT	International registration
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1. INTELLIGENT ANTENNA METAMATERIAL METHOD AND APPARATUS
Inventors: Maha Achour

10446927 Oct 15, 2019	20180351249 Dec 06, 2018	15977888 May 11, 2018		
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2. INTELLIGENT METAMATERIAL RADAR FOR TARGET IDENTIFICATION
Inventors: Maha Achour, Matthew Harrison

10942256 Mar 09, 2021	20180348343 Dec 06, 2018	15983036 May 17, 2018		
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3. NODAL METAMATERIAL ANTENNA SYSTEM
Inventors: Tim Curley, Maha Achour, Matthew Harrison

11105918 Aug 31, 2021	20180348365 Dec 06, 2018	15984222 May 18, 2018		
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4. FEED STRUCTURE FOR A METAMATERIAL ANTENNA SYSTEM
Inventors: Maha Achour, Chiara Pelletti, George Daniel, Yan Wang

11005179 May 11, 2021	20180351250 Dec 06, 2018	15996384 Jun 01, 2018		
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5. INTELLIGENT METAMATERIAL RADAR HAVING A DYNAMICALLY CONTROLLABLE ANTENNA
Inventors: Chiara Pelletti, George Daniel, Asmita Dani, Yan Wang, Maha Achour

11005192 May 11, 2021	20190131721 May 02, 2019	15997579 Jun 04, 2018		
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6. SMART INFRASTRUCTURE SENSING AND COMMUNICATION SYSTEM
Inventors: Yan Wang, Bernard Casse, Maha Achour, Chiara Pelletti

10854985 Dec 01, 2020	20190067826 Feb 28, 2019	16115521 Aug 28, 2018		
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TRADEMARK
REEL: 007668 FRAME: 0655

7. METHOD AND APPARATUS FOR A PASSIVE RADIATING AND FEED STRUCTURE

Inventors: George Daniel

None	20190081409 Mar 14, 2019	16130848 Sep 13, 2018
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8. METHOD AND APPARATUS FOR AN ACTIVE RADIATING AND FEED STRUCTURE

Inventors: George Daniel

None	20190081395 Mar 14, 2019	16130872 Sep 13, 2018
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9. POWER DIVISION IN ANTENNA SYSTEMS FOR MILLIMETER WAVE APPLICATIONS

Inventors: Chiara Pelletti

10741917 Aug 11, 2020	20190140351 May 09, 2019	16183689 Nov 07, 2018
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10. METHOD AND APPARATUS FOR WIRELESS CHARGING OF A MOBILE DEVICE

Inventors: Bernard Casse, Maha Achour

None	20190148969 May 16, 2019	16192554 Nov 15, 2018
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11. METHOD AND APPARATUS FOR A FREQUENCY-SELECTIVE ANTENNA

Inventors: Maha Achour

11201630 Dec 14, 2021	20190158130 May 23, 2019	16195792 Nov 19, 2018
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12. METHOD AND APPARATUS FOR REACTANCE CONTROL IN A TRANSMISSION LINE

Inventors: George Daniel, Maha Achour

None	20190165480 May 30, 2019	16201990 Nov 27, 2018
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13. METHOD AND APPARATUS FOR A METASTRUCTURE REFLECTOR IN A WIRELESS COMMUNICATION SYSTEM

Inventors: Maha Achour

None	20190165850 May 30, 2019	16203553 Nov 28, 2018
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14. METHOD AND APPARATUS FOR OBJECT DETECTION WITH INTEGRATED ENVIRONMENTAL INFORMATION

Inventors: Maha Achour, George Daniel

11050162 Jun 29, 2021	20190173196 Jun 06, 2019	16208496 Dec 03, 2018
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