PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT7228413

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
SIERRA WIRELESS, INC.	01/19/2022
SIERRA WIRELESS AMERICA INC.	01/19/2022

RECEIVING PARTY DATA

Name:	CANADIAN IMPERIAL BANK OF COMMERCE
Street Address:	595 BAY STREET
Internal Address:	5TH FLOOR
City:	TORONTO
State/Country:	CANADA
Postal Code:	M5G 2C2

PROPERTY NUMBERS Total: 124

Property Type	Number
Patent Number:	8054778
Patent Number:	8121071
Patent Number:	8228848
Patent Number:	8964549
Patent Number:	8494551
Patent Number:	8520634
Patent Number:	8565080
Patent Number:	8582631
Patent Number:	8405547
Patent Number:	8843738
Patent Number:	8972556
Patent Number:	9854423
Patent Number:	9445302
Patent Number:	9380430
Patent Number:	10455575
Patent Number:	9948789
Patent Number:	9144066
Patent Number:	9184880

Property Type	Number
Patent Number:	8484285
Patent Number:	9369230
Patent Number:	9075086
Patent Number:	10009831
Patent Number:	9668356
Patent Number:	9894523
Patent Number:	9716988
Patent Number:	9681256
Patent Number:	10346603
Patent Number:	10111067
Patent Number:	10819496
Patent Number:	10225829
Patent Number:	10271302
Patent Number:	11048801
Patent Number:	10868416
Patent Number:	10764847
Patent Number:	10977024
Patent Number:	10931492
Patent Number:	10630445
Patent Number:	7600013
Patent Number:	7023878
Patent Number:	8707406
Patent Number:	8812730
Patent Number:	8924486
Patent Number:	9628474
Patent Number:	9635532
Patent Number:	9148746
Patent Number:	8902818
Patent Number:	8289847
Patent Number:	8422234
Patent Number:	8301170
Patent Number:	8612494
Patent Number:	9832037
Patent Number:	7624147
Patent Number:	8838039
Patent Number:	8650412
Patent Number:	8565439
Patent Number:	8611376

Property Type	Number
Patent Number:	11229028
Application Number:	15283967
Application Number:	16249757
Application Number:	16537152
Application Number:	16561337
Application Number:	16791956
Application Number:	17184151
Patent Number:	6718177
Patent Number:	6882843
Patent Number:	6718237
Patent Number:	7272494
Patent Number:	7323970
Patent Number:	7734020
Patent Number:	7880599
Patent Number:	7936256
Patent Number:	8369487
Patent Number:	8265605
Patent Number:	8738046
Patent Number:	9131040
Patent Number:	8041383
Patent Number:	8126764
Patent Number:	9119013
Patent Number:	9785702
Patent Number:	9054893
Patent Number:	8769111
Patent Number:	8412186
Patent Number:	8990915
Patent Number:	8798260
Patent Number:	9214082
Patent Number:	9325814
Patent Number:	8543097
Patent Number:	8761795
Patent Number:	8970364
Patent Number:	9207331
Patent Number:	9041527
Patent Number:	9094410
Patent Number:	8855716
Patent Number:	9153124

Property Type	Number
Patent Number:	9177464
Patent Number:	9235855
Patent Number:	9350871
Patent Number:	9510180
Patent Number:	9801015
Patent Number:	9183730
Patent Number:	9462135
Patent Number:	9449497
Patent Number:	9773392
Patent Number:	9401082
Patent Number:	9875638
Patent Number:	9582982
Patent Number:	9820223
Patent Number:	9356798
Patent Number:	9824575
Patent Number:	9503848
Patent Number:	9794742
Patent Number:	11055724
Patent Number:	10107675
Patent Number:	9763025
Patent Number:	10304317
Patent Number:	9877172
Patent Number:	10264391
Application Number:	17066002
Application Number:	17062161
Application Number:	16536964
Application Number:	16529611
Application Number:	15721374
Application Number:	16058781
Application Number:	16789938

CORRESPONDENCE DATA

Fax Number: (778)329-0752

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Email: ipmailvancouver@blg.com

Correspondent Name: BORDEN LADNER GERVAIS LLP

Address Line 1: 1200 WATERFRONT CENTRE, 200 BURRARD STR.

Address Line 4: VANCOUVER, CANADA V7X 1T2

ATTORNEY DOCKET NUMBER:	500007/005796
NAME OF SUBMITTER:	CHELLISA THORNTON
SIGNATURE:	/Chellisa Thornton/
DATE SIGNED:	03/16/2022

Total Attachments: 61

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

SIERRA WIRELESS, INC. (the "**Borrower**")

SIERRA WIRELESS AMERICA INC. ("**America**")

(collectively, the "**Obligors**")

TO: CANADIAN IMPERIAL BANK OF COMMERCE, in its capacity as administrative agent, issuing lender and swingline lender (the "**Administrative Agent**")

DATE: January 19, 2022

RECITALS:

A. The Borrower, as borrower, America, as guarantor, the other loan parties from time to time party thereto, and the Administrative Agent, as administrative agent, are parties to a credit agreement dated as of July 31, 2018, as amended by a first amending agreement dated as of June 26, 2019, a second amending agreement dated as of April 30, 2020, a third amending agreement dated as of July 22, 2020, a fourth amending agreement dated as of September 25, 2020, a fifth amending agreement dated as of February 17, 2021 and a sixth amending agreement dated as of September 29, 2021 (collectively, the "**Original Credit Agreement**").

B. Pursuant to the Original Credit Agreement, each of the Obligors entered into a general security agreement, each dated as of July 31, 2018 (as amended, supplemented or otherwise modified from time to time, collectively, the "**General Security Agreements**") in favour of the Administrative Agent, whereby each of the Obligors granted a security interest in all present and after-acquired personal property of the Obligors, as applicable, including all patents, trademarks, copyrights, and all other intellectual property.

C. Pursuant to an intellectual property security agreement dated as of September 25, 2020 (the "**IP Security Agreement**"), each of the Obligors granted in favour of the lender a security interest in each of the Obligors' intellectual property, as applicable.

D. The Obligors, the other loan parties from time to time party thereto, and the Administrative Agent, as administrative agent, have entered into an amended and restated credit agreement dated as of January 19, 2022 (the "**Amended and Restated Credit Agreement**") to amend and restate the terms of the Original Credit Agreement.

E. Pursuant to the Amended and Restated Credit Agreement, each of the Obligors entered into a confirmation and reaffirmation agreement in favour of the Administrative Agent, whereby the Obligors confirmed and reaffirmed the security interests granted in favour of the Administrative Agent under, *inter alia*, the General Security Agreements and the IP Security Agreement.

F. As additional security for the obligations of the Borrower to the Administrative Agent, as described in the Amended and Restated Credit Agreement (the "**Obligations**"), the Obligors have agreed to enter into this intellectual property security agreement (the "**Agreement**").

FOR VALUE RECEIVED and intending to be legally bound by this Agreement, the Obligors agree as follows:

1. INTERPRETATION

1.1 Conflict with Amended and Restated Credit Agreement If there is any conflict or inconsistency between the terms of the Amended and Restated Credit Agreement and the terms of this Agreement, the provisions of the Amended and Restated Credit Agreement shall govern to the extent necessary to remove the conflict or inconsistency.

1.2 Other Interpretive Rules. Any rights or benefits stated to accrue to the benefit of the Administrative Agent shall accrue to the benefit of the Administrative Agent for and on behalf of and for the benefit of the Lenders (as defined in the Amended and Restated Credit Agreement) and any decision, determination, or other action required or permitted to be made or taken by the Administrative Agent shall be interpreted to mean that decision, determination or other action made or taken in accordance with the provisions of the Amended and Restated Credit Agreement.

2. GRANT OF SECURITY, ETC.

2.1 Grant of Security As security for payment and performance of the Obligations, the Obligors mortgage, charge, assign, transfer and pledge to the Administrative Agent as a fixed and specific mortgage and charge, and grant the Administrative Agent a security interest in, all of the Obligors' rights, titles and interests in and to all trademarks, patents, industrial designs, copyrights, internet domain names and all other intellectual property (collectively, the "**Intellectual Property**") now owned or at any time hereafter acquired by the Obligors or in which the Obligors now have or at any time in the future may acquire any right, title or interest (including, without limitation, all Intellectual Property listed on **Schedule "A"** hereto).

2.2 Purpose. This Agreement has been executed and delivered by the Obligors for the purpose of recording the grant of security interest herein with the Canadian Intellectual Property Office, the United States Patent and Trademark Office, the United States Copyright Office, or such other office or registry as may be appropriate from time to time.

2.3 Acknowledgment. The Obligors hereby acknowledge and affirm that the rights and remedies of the Administrative Agent with respect to the security interest in the Intellectual Property are more fully set forth in each of the General Security Agreements, the terms and conditions of each (including the remedies provided for therein) are incorporated by reference herein as if fully set forth herein.

2.4 Governing Law. This Agreement and any dispute arising from or in relation to this Agreement shall be governed by, and interpreted and enforced in accordance with, the law of the Province of British Columbia and the laws of Canada applicable therein, excluding the conflict of law rules of that province.

[Signature page follows – remainder of page is intentionally blank]

IN WITNESS OF WHICH, the Obligors have duly executed this Agreement as of the date first above written.

SIERRA WIRELESS, INC.,
by its authorized signatory:

By: _____
Name: Sam Cochrane
Title: CFO

SIERRA WIRELESS AMERICA INC.,
by its authorized signatory:

By: _____
Name: Sam Cochrane
Title: Director

SCHEDULE A

INTELLECTUAL PROPERTY

PATENTS

Type	Country	Title	Status	Official Filing Date	Publication No.	Publication Date	Patent/ Registration No.	Issue Date	Expiry Date	Assigne
PAT	US	Methods and apparatuses for supporting multi transport block grant data transmission	Pending	24-Feb-21	US 2021-273751					Sierra Wireless, Inc.
PAT	US	Method and apparatus for resource allocation for half duplex frequency division duplexing in a wireless communication system	Pending	8-Oct-20	US 2021-028918	28-Jan-21				Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Facilitating Transmissions In A Wireless Communication System	Pending	2-Oct-20	US 2021-105099	8-Apr-21				Sierra Wireless, Inc.

PAT	US	Methods and apparatuses for small data transmissions	Pending	5-Sep-19	US 2020-092905	19-Mar-20				Sierra Wireless Inc.
PAT	US	Method and apparatus for multi-transport block grant transmissions	Pending	9-Aug-19	US 2020-053750	13-Feb-20				Sierra Wireless Inc.
PAT	US	Methods and systems for remote software update	Pending	1-Aug-19	US 2020-042313	6-Feb-20				Sierra Wireless Inc.
LP	US	LAN/WWAN GATEWAY CARRIER CUSTOMIZATIO N	Issued	10-Nov-06	US 2007-0104169	10-May-07	8,054,778	08-Nov-11		Sierra Wireless America Inc.
LP	US	GATEWAY NETWORK MULTIPLEXING	Issued	10-Nov-06	US 2007-0104168	10-May-07	8121071	21-Feb-12		Sierra Wireless America Inc.
LP	CA	Cognitive Wireless System	Issued	7-Jan-11	CA 2,730,269	14-Jan-11	2,730,269	17-Apr-18		Sierra Wireless
PAT	CN	Method and Apparatus for Facilitating Push Communication across a Network Boundary	Issued	12-May-10	CN 102714636 A	3-Oct-12	ZL 201080060040.5	25-Nov-15	12-May-30	Sierra Wireless, Inc.
PAT	US	Minimise PDP Activations	Issued	17-Nov-09	US 2010-0124191	20-May-10	8,228,848	24-Jul-12	18-Jun-30	Sierra Wireless, Inc.

PAT	CN	Method and Apparatus for Managing Wireless Communication Based on Network Traffic Level	Issued	22-Jun-11	CN 102948192 A	27-Feb-13	ZL201180031107.7	29-Jun-16	22-Jun-31	Sierra Wireless Inc.
PAT	US	METHOD AND APPARATUS FOR MANAGING WIRELESS COMMUNICATION BASED ON NETWORK TRAFFIC LEVEL	Issued	21-Jun-11	US 2010-0099430	26-Apr-12	8,964,549	24-Feb-15	4-Nov-31	Sierra Wireless, Inc.
PAT	AU	Method and System for Performing Position Updates in a Wireless Communication System	Issued	11-May-10			2010246848	8-Jan-15	11-May-30	Sierra Wireless, Inc.
US	US	Method and System for Performing Position Updates in a Wireless Communication System	Issued	11-May-10	US 2010-0285816	11-Nov-10	8,494,551	23-Jul-13	1-Aug-31	Sierra Wireless, Inc.
PAT	US	ACTIVE/STANDBY OPERATION OF A FEMTOCELL BASE STATION	Issued	4-Aug-10	US 2012-0033611	9-Feb-12	8,520,634	27-Aug-13	16-Sep-31	Sierra Wireless, Inc.
PAT	CN	Method and Apparatus for Managing	Issued	9-Oct-12	201180018182.X	19-Dec-12	ZL 201180018182.X	20-Jan-16	15-Feb-31	Sierra Wireless, Inc.

		Communications in a Wireless Communication System								
LP	DE	Method and Apparatus for Managing Communications in a Wireless Communication System	Validation	14-Sep-12	2537366	26-Dec-12	2537366	7-Nov-18		Sierra Wireless Inc.
LP	FR	Method and Apparatus for Managing Communications in a Wireless Communication System	Validation	14-Sep-12	2537366	26-Dec-12	2537366	7-Nov-18		Sierra Wireless, Inc.
LP	GB	Method and Apparatus for Managing Communications in a Wireless Communication System	Validation	14-Sep-12	2537366	26-Dec-12	2537366	7-Nov-18		Sierra Wireless, Inc.
PAT	US	METHOD AND APPARATUS FOR MANAGING COMMUNICATIONS IN A WIRELESS COMMUNICATION SYSTEM	Issued	15-Feb-11	US 2011/0199901	18-Aug-11	8,565,080	22-Oct-13	8-Nov-31	Sierra Wireless, Inc.

US	US	MANAGING COMMUNICATION OPERATIONS OF WIRELESS DEVICES	Issued	25-Apr-11	US 2011/0261891	27-Oct-11	8,582,631	12-Nov-13		Sierra Wireless Inc.
PAT	US	Self-Provisioning Antenna System and Method	Issued	1-Dec-10	US 2012/0139788	7-Jun-12	8,405,547	26-Mar-13		Sierra Wireless America Inc.
PAT	DE	TLS Abbreviated Session Identifier Protocol	Validation	9-May-13	2850776/DE 602013027219.0	25-Mar-15	EP2850776	27-Sep-17		Sierra Wireless Inc.
PAT	GB	TLS Abbreviated Session Identifier Protocol	Validation	9-May-13		25-Mar-15	EP2850776	27-Sep-17		Sierra Wireless, Inc.
PAT	US	TLS Abbreviated Session Identifier Protocol	Issued	14-May-12	US-2013-0305036	14-Nov-13	8,843,738	27-Sep-14	14-May-32	Sierra Wireless, Inc.
PAT	US	Method And Apparatus For Management Of Network Communications	Issued	7-May-12	US-2012-0284385-A1	8-Nov-12	8,972,556	3-Mar-15	15-Oct-32	Sierra Wireless, Inc.
PAT	US	Subscription and Charging Control for Wireless Communications Between Proximate Devices	Issued	1-Feb-13	US 2013/0203378	8-Aug-13	9,854,423	26-Dec-17		Sierra Wireless, Inc.
PAT	US	Method and System for Radio Resource Allocation	Pending	2-Jun-16	US 2016/0278098	22-Sep-16				Sierra Wireless, Inc.

PAT	DE	Method and System for Radio Resource Allocation	Issued	4-Oct-13	2904867	12-Aug-15	2904867	-		Sierra Wireless Inc.
PAT	EP	Method and System for Radio Resource Allocation	Issued	4-Oct-13	2904867	12-Aug-15	2904867	-		Sierra Wireless Inc.
PAT	FR	Method and System for Radio Resource Allocation	Issued	4-Oct-13	2904867	12-Aug-15	2904867	-		Sierra Wireless Inc.
PAT	GB	Method and System for Radio Resource Allocation	Issued	4-Oct-13	2904867	12-Aug-15	2904867	-		Sierra Wireless Inc.
PAT	US	Method and System for Wireless Communication with Machine-to-Machine Devices	Issued	13-Dec-13	US-2014-0105009	17-Apr-14	9445302	13-Sep-16	12-Jul-33	Sierra Wireless, Inc.
PAT	US	Wireless Communication with Machine-to-Machine Devices	Issued	14-Jun-13	US-2013-0336111	19-Dec-13	9,380,430	28-Jun-16	6-Mar-34	Sierra Wireless, Inc.
VAL	DE	Method, Apparatus and System for Uplink Radio Resource Allocation in an LTE Communication System	Validation	4-Oct-13	2904864	12-Aug-15	2904864	18-Sep-19		Sierra Wireless, Inc.
VAL	FR	Method, Apparatus and System for Uplink Radio Resource	Validation	4-Oct-13	2904864	12-Aug-15	2904864	18-Sep-19		Sierra Wireless, Inc.

		Allocation in an LTE Communication System								
VAL	GB	Method, Apparatus and System for Uplink Radio Resource Allocation in an LTE Communication System	Validation	4-Oct-13	2904864	12-Aug-15	2904864	18-Sep-19		Sierra Wireless Inc.
PAT	US	Method, Apparatus and System for Uplink Radio Resource Allocation in an LTE Communication System	Issued	4-Oct-13	US-2014-0098781	10-Apr-14	10,455,575	22-Oct-19		Sierra Wireless, Inc.
PAT	DE	Method and System for Providing Differentiated Wireless Network Access and Billing to Subscribers	Validation	2-Apr-14	2989814	2-Mar-16	2989814, DE60 2014 046 442.4.	8-May-19		Sierra Wireless, Inc.
PAT	EP	Method and System for Providing Differentiated Wireless Network Access and Billing to Subscribers	Issued	2-Apr-14	2989814	2-Mar-16	2989814	8-May-19		Sierra Wireless, Inc.

PAT	FR	Method and System for Providing Differentiated Wireless Network Access and Billing to Subscribers	Validation	2-Apr-14	2989814	2-Mar-16	2989814	8-May-19		Sierra Wireless Inc.
PAT	UK	Method and System for Providing Differentiated Wireless Network Access and Billing to Subscribers	Validation	2-Apr-14	2989814	2-Mar-16	2989814	8-May-19		Sierra Wireless Inc.
PAT	NL	Method and System for Providing Differentiated Wireless Network Access and Billing to Subscribers	Validation	2-Apr-14	2989814	2-Mar-16	2989814	8-May-19		Sierra Wireless, Inc.
LP	US	Method and System for Providing Differentiated Wireless Network Access and Billing to Subscribers	Issued	2-Apr-14	US-2014-0295790	2-Oct-14	9,948,789	17-Apr-18		Sierra Wireless, Inc.
PAT	CN	Method and System for Hybrid Automatic Repeat Request Combining on an LTE Downlink Control Channel	Issued	28-Dec-12	CN105009630A	28-Oct-15	ZL201380073980.1	27-Sep-19	8-Aug-33	Sierra Wireless, Inc.

VAL	DE	Method and System for Hybrid Automatic Repeat Request Combining on an LTE Downlink Control Channel	Validation	8-Aug-13	2939464	4-Nov-15	2939464	7-Mar-18		Sierra Wireless Inc.
VAL	FR	Method and System for Hybrid Automatic Repeat Request Combining on an LTE Downlink Control Channel	Validation	8-Aug-13	2939464	4-Nov-15	2939464	7-Mar-18		Sierra Wireless, Inc.
VAL	GB	Method and System for Hybrid Automatic Repeat Request Combining on an LTE Downlink Control Channel	Validation	8-Aug-13	2939464	4-Nov-15	2939464	7-Mar-18		Sierra Wireless, Inc.
PAT	US	Method and System for Hybrid Automatic Repeat Request Combining on an LTE Downlink Control Channel	Issued	28-Dec-12	US-2014-0185534	3-Jul-14	9,144,066	22-Sep-15	21-May-33	Sierra Wireless, Inc.
PAT	US	Method and Device Enabling A Dynamic Bundle Size HARQ Mechanism	Issued	1-Aug-13	US-2015-0039958	5-Feb-15	9,184,880	10-Nov-15		Sierra Wireless, Inc.

PAT	US	Method and Device for Communication between a Device and a Server	Issued	15-Mar-07	US 2009/0216344	27-Aug-09	8,484,285	9-Jul-13	15-Mar-27	Sierra Wireless Inc.
PAT	US	Method And Apparatus For Broadcast Channel Decoding	Issued	2-Apr-14	US-2014-0301296	9-Oct-14	9,369,230	14-Jun-16	25-Apr-34	Sierra Wireless Inc.
PAT	US	Method and Apparatus for Determining Time-Varying Limitations of A Power Source	Issued	24-May-13	US-2014-0347100	27-Nov-14	9,075,086	7-Jul-15	4-Jul-33	Sierra Wireless Inc.
LP	US	Method and Apparatus for Communication of System Information in a Wireless System	issued	25-Apr-14	US-2014-0334372	13-Nov-14	10,009,831	26-Jun-18		Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Electrical Keying of an Integrated Circuit Package Having Rotationally Symmetric Footprint	Pending	30-Sep-14						Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Electrical Keying of an Integrated Circuit Package Having Rotationally	Issued	1-Oct-13	US-2015-0091390	2-Apr-15	9,668,356	30-May-17		Sierra Wireless, Inc.

		Symmetric Footprint								
PAT	US	Wireless Device Customization Resources	Issued	24-Feb-15	US-2015-0245215	27-Aug-15	9894523	13-Feb-18		Sierra Wireless Inc.
PAT	EP	Method and Apparatus for Communicating with LTE Terminals Having Restricted Capabilities	Allowed	26-Sep-14	EP3050389					Sierra Wireless Inc.
PAT	DE	Method and Apparatus for Communicating with LTE Terminals Having Restricted Capabilities	Allowed	26-Sep-14	EP3050389					Sierra Wireless, Inc.
PAT	FR	Method and Apparatus for Communicating with LTE Terminals Having Restricted Capabilities	Allowed	26-Sep-14	EP3050389					Sierra Wireless, Inc.
PAT	GB	Method and Apparatus for Communicating with LTE Terminals Having Restricted Capabilities	Allowed	26-Sep-14	EP3050389					Sierra Wireless, Inc.
PAT	NL	Method and Apparatus for Communicating with LTE Terminals	Allowed	26-Sep-14	EP3050389					Sierra Wireless, Inc.

		Having Restricted Capabilities								
PAT	US	Method and Apparatus for Communicating with LTE Terminals Having Restricted Capabilities	Issued	26-Sep-13	US 2015/0085689	26-Mar-15	9,716,988	25-Jul-17		Sierra Wireless Inc.
PAT	US	Abbreviated Blind Detection in Wireless Communication Systems including LTE	Issued	15-Mar-14	US-2015-0264665	17-Sep-15	9,681,256	13-Jun-17		Sierra Wireless, Inc.
PAT	US	Method, Apparatus And System For Gesture Based Security	Issued	9-Dec-14	US-2016-0162676	09-Jun-16	10,346,603	09-Jul-19		Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Communicating System Information and Random Access in a Wireless System	Issued	7-Apr-16	US-2016-0302024	13-Oct-16	10,111,067	23-Oct-18		Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Resource Allocation for Half Duplex Frequency Division Duplexing in a Wireless	Published	13-May-16	3295701	21-Mar-18				Sierra Wireless, Inc.

		Communication System								
PAT	US	Method and Apparatus for Resource Allocation for Half Duplex Frequency Division Duplexing in a Wireless Communication System	Issued	16-May-16	US-2016-0338089	17-Nov-16	10,819,496	27-Oct-20		Sierra Wireless Inc.
PAT	EP	Method and System for Transmitting Control Information for User Equipment	Validation	18-Apr-18	EP3354064		EP3354064	20-Jan-21		Sierra Wireless, Inc.
PAT	US	Method and System for Transmitting Control Information for User Equipment	Issued	26-Sep-16	US-2017-0094644-A1	30-Mar-17	10,225,829	5-Mar-19		Sierra Wireless, Inc.
PAT	EP	Method and System for Paging User Equipment	Pending	19-Apr-18						
PAT	US	Method and System for Paging User Equipment	Pending	3-Oct-16	US-2017-0099649-A1	6-Apr-17				Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Paging Terminals in a Wireless Communication System	Pending	24-May-18						Sierra Wireless, Inc.

LP	US	Method and Apparatus for Paging Terminals in a Wireless Communication System	Issued	4-Nov-16	US-2017-0135066-A1	11-May-17	10271302	23-Apr-19		Sierra Wireless Inc.
PAT	EP	Methods and Apparatuses for User Equipment Access to a Wireless Communication System	Published	29-Sep-17	EP3520545	7-Aug-19	-	-	30-Sep-17	Sierra Wireless Inc.
PAT	US	Methods and Apparatuses for User Equipment Access to a Wireless Communication System	Pending	29-Sep-17	US2018/098360	5-Apr-18	-	-	30-Sep-17	Sierra Wireless, Inc.
PAT	CN	Method and Apparatus for Secure Computing Device Start Up	Published	22-Mar-18	CN110494856A	22-Nov-19				Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Secure Computing Device Start Up	Pending	22-Mar-19	3602375	5 Feb. 2020				Sierra Wireless, Inc.
PAT	WO	Method and Apparatus for Secure Computing Device Start Up	Published	22-Mar-18	WO2018/176125	4-Oct-18				Sierra Wireless, Inc.

PAT	US	Method and Apparatus for Secure Computing Device Start Up	Issued	28-Mar-18	US20180285570A1	4-Oct-18	11048801	29-Jun-20		Sierra Wireless Inc.
PAT	US	Protection Circuit Involving Positive Temperature Coefficient Device	Issued	2-Mar-18	US20190273373	5-Sep-19	10868416	15-Dec-20		Sierra Wireless Inc.
PAT	US	Method and System for Using Enhanced Primary Synchronization Signal	Issued	2-May-18	2018/0324722	8-Nov-18	10764847	1-Sep-20		Sierra Wireless Inc.
PAT	EP	Method and Apparatus for Indicating a System Information Block Change	Published	8-Aug-18	18844149.7					
PAT	WO	Method and Apparatus for Indicating a System Information Block Change	Published	8-Aug-18	WO 2019/028553	14-Feb-19				Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Indicating a System Information Block Change	Pending	8-Aug-18	US2019/053156	14-Feb-19				Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Secure Software Update	Issued	15-Jun-18	US20190384586		10977024	13-Apr-21		Sierra Wireless, Inc.

PAT	US	2 Tone in-phase pi/2 BPSK Sub-PRB Modulation	Issued	15-Nov-18	US20190149381A1	16-May-19	10931492	23-Feb-21		Sierra Wireless Inc.
PAT	US	Methods and Apparatuses For Phase Rotation in 2 Sub Carrier PI/2 Binary Phase Shift Keying Communication	Issued	16-Jan-19	US20190222447A1	18-Jul-19	10,630,445	21-Apr-20		Sierra Wireless Inc.
PAT	WO	DMRS for a 2 sub-carrier pi/2 BPSK Modulation in an OFDMA system, Joint filing with D18010410 as Methods and Apparatuses for Implementation of Cyclic Prefix and Demodulation Reference Signals in 2 Sub-Carrier Pi/2 Binary Phase Shift Keying Modulation in a Communication System	Published	16-Jan-19	WO2019140519	25-Jul-19				Sierra Wireless, Inc.
PAT	US	DMRS for a 2 sub-carrier pi/2 BPSK Modulation in an OFDMA system	Published	16-Jan-19	US20190222388	18-Jul-19				Sierra Wireless, Inc.

PAT	US	Method and Apparatus for Multi-Transport Block Grant Transmissions (Multi-DCI TBI HARQ)	Pending	9-Aug-18	US20200053769	13-Feb-20				Sierra Wireless Inc.
PAT	WO	Method and Apparatus for Communication of System Information in a Wireless System	Pending	3-Sep-19	WO2020/047655	12-Mar-20				Sierra Wireless Inc.
PAT	US	Method and Apparatus for Communication of System Information in a Wireless System	Pending	5-Sep-19	US2020/0092905	19-Mar-29				Sierra Wireless Inc.
PAT	US	Method and Apparatus for Supporting Two-step Random Access Channel Usage in a Wireless Communication System	Pending	14-Feb-20	US 2020-267774					Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Supporting Two-Step Random Access Channel	Pending	14-Feb-20	US2020/0267774	20-Aug-20				Sierra Wireless Inc.

		Usage in a Wireless Channel Using a								
PAT	WO	Method and Apparatus for Time Advance Validation Using Reference Signal Received Power	Pending	13-Feb-20	WO2020/163957					
PAT	US	Method and apparatus for time advance validation using reference signal received power	Pending	13-Feb-20	US 2020-260397					Sierra Wireless, Inc.
PAT	US	Methods and Appparatuses for Supporting Multi Transport Block Grant Data Transmsission in a Wireless communication System	Pending	27-Feb-20	US2021/0273751	2-Sep-21				Sierra Wireless, Inc.
VAL	DE	System and Method for Remotely Monitoring Modem Status	Validation	30-Jul-02	EP1415436		EP1415436	12-Sep-07		Sierra Wireless, Inc.
VAL	FR	System and Method for Remotely Monitoring Modem Status	Validation	30-Jul-02	EP1415436		EP1415436	12-Sep-07		Sierra Wireless, Inc.

VAL	GB	System and Method for Remotely Monitoring Modem Status	Validation	30-Jul-02	EP1415436		EP1415436	12-Sep-07		Sierra Wireless Inc.
LP	US	System and Method for Remotely Monitoring Modem Status	Issued	30-Jul-01	US 2003-0023720	30-Jan-03	7600013	06-Oct-09	Projected tb March 16, 2024 (30-Jul-21+960 PTA)	Sierra Wireless Inc.
LP	US	System and Method for Remotely Monitoring Modern Status	Issued	20-Dec-01	US 2003-0120818	26-Jun-03	7023878	4-Apr-06		Sierra Wireless, Inc.
PAT	US	Always-on Virtual Private Network Access	Issued	26-Jul-02	US 2004-0068666	8-Apr-04	8,707,406	22-Apr-14		Sierra Wireless, Inc.
VAL	DE	Efficient Notification Of New Electronic Mail Arrival	Validation	2-Sep-04	EP1661305	31-May-06	1661305	8-Jan-14		Sierra Wireless, Inc.
VAL	FR	Efficient Notification Of New Electronic Mail Arrival	Validation	2-Sep-04	EP1661305	31-May-06	1661305	8-Jan-14		Sierra Wireless, Inc.
VAL	GB	Efficient Notification Of New Electronic Mail Arrival	Validation	2-Sep-04	EP1661305	31-May-06	1661305	8-Jan-14		Sierra Wireless, Inc.
VAL	HK	Efficient Notification Of New Electronic	Validation	2-Sep-04	HK1092619	2-Sep-07	HK1092619	11-Apr-14		Sierra Wireless, Inc.

		Mail Arrival (Previously incorrect labelled - 872, Validation from EP-780, HK stage II)								
LP	CN	Dynamic Bus Based Virtual Channel Multiplexing Device Driver Architecture	Issued	6-Oct-06	CN101490637	22-Jul-09	ZL200680041579.X	7-Sep-11		Sierra Wireless Inc.
PAT	DE	METHOD AND APPARATUS FOR GLOBAL NAVIGATION SATELLITE SYSTEM RECEIVER COUPLED TO A HOST COMPUTER SYSTEM	Validation	22-Sep-09	2331984	15-Jun-11	2331984	29-May-13		Sierra Wireless, Inc.
PAT	FR	METHOD AND APPARATUS FOR GLOBAL NAVIGATION SATELLITE SYSTEM RECEIVER COUPLED TO A HOST COMPUTER SYSTEM	Validation	22-Sep-09	2331984	15-Jun-11	2331984	29-May-13		Sierra Wireless, Inc.

PAT	GB	METHOD AND APPARATUS FOR PORT FORWARDING IN NETWORK ADDRESS TRANSLATION	Issued	17-Nov-09	2478470	7-Sep-11	2478470	16-Apr-14		Sierra Wireless Inc.
PAT	US	Method and Apparatus for Port Forwarding in Network Address Translation	Issued	17-Nov-09	US 2012-0023257-A1	26-Jan-12	8,812,730	19-Aug-14	31-Jan-30	Sierra Wireless Inc.
PAT	DE	Method and System for Aggregating Communications	Validation	12-Feb-10	2,396,937	21-Dec-11	EP2396937 (DE60 2010 046 215.3)	25-Oct-17	12-Feb-30	Sierra Wireless, Inc.
PAT	FR	Method and System for Aggregating Communications	Validation	12-Feb-10	2,396,937	21-Dec-11	EP2396937	25-Oct-17	12-Feb-30	Sierra Wireless, Inc.
PAT	GB	Method and System for Aggregating Communications	Validation	12-Feb-10	2,396,937	21-Dec-11	EP2396937	25-Oct-17	12-Feb-30	Sierra Wireless, Inc.
PAT	US	Method and System for Aggregating Communications	Issued	12-Feb-09	US 2010-0205260	12-Aug-10	8,924,486	30-Dec-14	31-Jul-29	Sierra Wireless, Inc.
PAT	DE	METHOD AND APPARATUS FOR ASSOCIATING INDENTITY MODULES AND TERMINAL EQUIPMENT	Validation	17-Nov-09	2,356,836	17-Aug-11	EP2356836 / DE60 2009 043 759.3	1-Jan-17	17-Nov-29	Sierra Wireless, Inc.

PAT	FR	METHOD AND APPARATUS FOR ASSOCIATING INDENTITY MODULES AND TERMINAL EQUIPMENT	Validation	17-Nov-09	2,356,836	17-Aug-11	EP2356836	1-Jan-17	17-Nov-29	Sierra Wireless Inc.
PAT	GB	METHOD AND APPARATUS FOR ASSOCIATING INDENTITY MODULES AND TERMINAL EQUIPMENT	Validation	17-Nov-09	2,356,836	17-Aug-11	EP2356836	1-Jan-17	17-Nov-29	Sierra Wireless Inc.
PAT	NL	METHOD AND APPARATUS FOR ASSOCIATING INDENTITY MODULES AND TERMINAL EQUIPMENT	Validation	17-Nov-09	2,356,836	17-Aug-11	EP2356836	1-Jan-17	17-Nov-29	Sierra Wireless, Inc.
PAT	US	Method and Apparatus for Associating Universal Integrated Circuit Card and Mobile Equipment	Issued	17-Nov-09	US 2011/0287740	24-Nov-11	9,628,474	18-Apr-17	17-Nov-29	Sierra Wireless, Inc.
	US	Method for switching a terminal over from a first radiocommunications network to a	Issued	1-Oct-2014	US 2015-0094011		US9635532	25-Apr-17		Sierra Wireless, S.A.

		second radiocommunicatio ns network, corresponding computer program product, storage means and terminal								
	US	Method and device for controlling the access of equipment for a network of the machine-to-machine type to the resources of a cellular telephony network	Issued	28-Feb-2013	US 2014-0087743		US9148746	29-Sep-2015		Sierra Wireless S.A.
	US	System for communicating between a non-connected equipment and a management server	Issued	1-Oct-2012	US 2013-0272195		US8902818	2-Dec-2014		Sierra Wireless, S.A.
	US	Methods for transmitting and managing voice frames, computer program product, means of storage and corresponding devices	Issued	16-Oct-2009	US 2010-0099400		US8289847	16-Oct-12		Sierra Wireless, S.A.
	US	Device for electromagnetic shielding and	Issued	19-Jun-2009	US 2011-0194259		US8422234	16-Apr-13		Sierra Wireless, S.A.

		dissipation of heat released by an electronic component, and corresponding electronic circuit								
	US	Method of locating a radiocommunication device, corresponding computer program product, storage means and radiocommunication module	Issued	16-Jun-2009	US 2011-0312323		US8301170	30-Oct-12		Sierra Wireless S.A.
LP	MX	METODO Y SISTEMAS PARA ADMINISTRAR MODULOS DE IDENTIDAD DE SUSCRIPTORES EN REDES INALAMBRICAS PARA APLICACIONES MAQUINA-A-MAQUINA.	Issued	9-Jan-12		4-Oct-13	314,471	23-Oct-13		Sierra Wireless America, Inc.
LP	MX	ENTREGA DE DATOS Y AUDIO DE EVENTOS DEL SISTEMADE ALARMA SOBRE	Issued	6-Mar-12	WO 2012/138443	20-Jan-15	327,784			Sierra Wireless America, Inc.

		REDES HIBRIDAS.								
LP	MX	ENTREGA DE DATOS Y AUDIO DE EVENTOS DEL SISTEMA DE ALARMA.	Issued	4-Apr-12	WO 2012/138683	25-Oct-13	327,143	20-Jan-15		Sierra Wireless America Inc.
PAT	MX	CONTROL IMPERACTIVO DE SISTEMAS DE ALARMA POR INTERFAZ DE TELEFONO UTILIZANDO UNA PUERTA DE ENLACE INTERMEDIA.	Issued	27-Apr-12	WO 2012/149262	13-Feb-20	327,926	16-Feb-15		Sierra Wireless America, Inc.
PAT	WO	Method and Apparatus for Multi-Transport Block Grant Transmissions (Multi-TB Scheduling with Time Diversity)	Published	9-Aug-18	WO 2020/028993					Sierra Wireless, Inc.
PAT	EP	METHOD AND APPARATUS FOR MULTI-TRANSPORT BLOCK GRANT TRANSMISSIONS	Pending	9-Aug-18		23-Sep-20				Sierra Wireless, Inc.

PAT	EP	2 Tone in-phase pi/2 BPSK Sub-PRB Modulation	Published	14-Nov-18	3711268	25-Nov-20				Sierra Wireless Inc.
PAT	EP	"DMRS for a 2 sub-carrier pi/2 BPSK Modulation in an OFDMA system, Joint filing with D18010410 as Methods and Apparatuses for Implementation of Cyclic Prefix and Demodulation Reference Signals in 2 Sub-Carrier Pi/2 Binary Phase Shift Keying Modulation in a Communication System"	Pending	16-Jan-19	EP3741090	9-Jun-21				Sierra Wireless Inc.
PAT	EP	Methods and Systems for Remote Software Update	Pending	1-Aug-19	EP3830689					Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Communication of System Information in a Wireless System	Pending	3-Sep-19		25-Jul-19				Sierra Wireless, Inc.
PAT	EP	Methods and Apparatuses For Phase Rotation in 2	Published	16-Jan-20	EP19740781.0					Sierra Wireless, Inc.

		Sub Carrier PI/2 Binary Phase Shift Keying Communication (Focus of claims is the successful, in US, phase rotation. Note: MBM reference is as for the combined PCT filing ~306)								
PAT	EP	Method and Apparatus for Time Advance Validation Using Reference Signal Received Power	Pending	13-Feb-20		20-Aug-20				Sierra Wireless, Inc.
PAT	WO	Method and Apparatus for Supporting Two-Step Random Access Channel Usage in a Wireless Channel Using a	Published	14-Feb-20	WO 2020/163969					Sierra Wireless, Inc.
PAT	WO	Method And Apparatus For Facilitating Transmissions In A Wireless Communication System	Pending	2-Oct-20		10-Jun-21				Sierra Wireless, Inc.

PAT	WO	METHOD AND APPARATUS FOR DEVICE TO DEVICE COMMUNICATION FOR CELLULAR DEVICES	Pending	27-Nov-20	WO 2021/108897					Sierra Wireless Inc.
PAT	WO	Methods and Apparatuses for Supporting Multi Transport Block Grant Data Transmission in a Wireless communication System	Pending	24-Feb-21		4-Oct-13				Sierra Wireless, Inc.
LP	US	LAN/WWAN GATEWAY CARRIER CUSTOMIZATION	Issued	10-Nov-06	US 2007-0104169	10-May-07	8,054,778	8-Nov-11		Sierra Wireless America Inc.
LP	US	System for Communicating Messages Via a Forward Overhead Control Channel for a Programmable Logic Control Device	Issued	20-Sep-00			6,718,177	6-Apr-04		Numerex Corp.*
LP	US	Interconnect System and Method for Multiple	Issued	2-Jan-02			6,882,843	19-Apr-05		Numerex Corp.*

		Protocol Short Message Services								
LP	US	Communications Device for Conveying Geographic Location Information Over Capacity Constrained Wireless Systems	Issued	30-Sep-02			6,718,237	6-Apr-04		Numerex Corp.*
LP	US	Communication Device for Conveying Geographic Location Information Over Capacity Constrained Wireless Systems	Issued	6-Feb-04			7,272,494	18-Sep-07		Numerex Corp.*
LP	US	Method and System for Remote Interaction with a Vehicle via Wireless Communication	Issued	21-Jan-05			7,323,970	29-Jan-08		Numerex Corp.*
LP	US	Two-way Voice and Voice over IP receivers for Alarm Systems	Issued	6-Feb-06			7,734,020	8-Jun-10		Numerex Corp.*
LP	US	Method and System for Remotely Monitoring the	Issued	14-Dec-07			7,880,599	1-Feb-11		Numerex Corp.*

		Operations of a Vehicle								
LP	US	Method and System for Interacting with a Vehicle over a Mobile Radiotelephone Network	Issued	14-Dec-07			7,936,256	3-May-11		Numerex Corp.*
LP	US	Enhanced 911 notification for Internet Enabled Alarm Systems	Issued	23-Jan-08			8,369,487	5-Feb-13		Numerex Corp.*
LP	US	Service escrowed transportable wireless event reporting system	Issued	6-Feb-08			8,265,605	11-Sep-12		Numerex Corp.*
LP	US	Intelligent Short Message Delivery System and Method	Issued	27-Oct-08			8,738,046	27-May-14		Numerex Corp.*
LP	US	Alarm System for use over Satellite Broadband	Issued	17-Jul-09			9,131,040	8-Sep-15		Numerex Corp.*
LP	US	Digital Upgrade System and Method	Issued	26-Feb-10			8,041,383	18-Oct-11		Numerex Corp.*
LP	US	Communication of Managing Vending Operations Based on Wireless Data	Issued	6-Jan-11			8,126,764	28-Feb-12		Numerex Corp.*
LP	US	Satellite Based Tracking and Data Device with Multi-	Issued	7-Apr-11			9,119,013	25-Aug-15		Numerex Corp.*

		Function Radio Frequency Interface								
LP	US	Analytical Scoring Engine for Remote Device Data	Issued	22-Apr-11			9,785,702	10-Oct-17		Numerex Corp.*
LP	US	Alarm System IP Network with PSTN Output	Issued	30-Jul-11			9,054,893	9-Jun-15		Numerex Corp.*
LP	US	IP Network Service Redirector Device and Method	Issued	15-Aug-11			8,769,111	1-Jul-14		Numerex Corp.*
LP	US	Method and system for managing subscriber identity modules on wireless networks for machine to-machine applications	Issued	6-Jan-12			8,412,186	2-Apr-13		Numerex Corp.*
LP	US	Local Data Appliance for Collecting and Storing Remote Sensor Data	Issued	30-Mar-12			8,990,915	24-Mar-15		Numerex Corp.*
LP	US	Delivery of Alarm System Event Data and Audio	Issued	4-Apr-12			8,798,260	5-Aug-14		Numerex Corp.*
LP	US	System and Method for Alarm System Tamper Detection and Reporting	Issued	31-May-12			9,214,082	15-Dec-15		Numerex Corp.*
LP	US	Wireless SNMP Agent Gateway	Issued	31-May-12			9,325,814	9-Aug-16		Numerex Corp.*

LP	US	Service escrowed transportable wireless event reporting system	Issued	7-Aug-12			8,543,097	24-Sep-13		Numere Corp.*
LP	US	Dynamic Reverse Geofencing	Issued	10-Sep-12			8,761,795	24-Jun-14		Numere Corp.*
LP	US	Method and System for Remote Coupling Security System Control	Issued	3-Oct-12			8,970,364	3-Mar-15		Numere Corp.*
LP	US	Using Statistical Analysis to Infer an Accurate GPS Location for Use in Tracking Devices	Issued	4-Jan-13			9,207,331	8-Dec-15		Numere Corp.*
LP	US	System and Method for Using Alarm System Zones for Remote or Mobile Objects	Issued	18-Apr-13			9,041,527	26-May-15		Numerex Corp.*
LP	US	Wireless VoIP Network for Security System Monitoring	Issued	11-Jul-13			9,094,410	28-Jul-15		Numerex Corp.*
LP	US	Service escrowed transportable wireless event reporting system	Issued	21-Aug-13			8,855,716	7-Oct-14		Numerex Corp.*
LP	US	Alarm Sensor Supporting Long-Range Wireless Communication	Issued	29-Aug-13			9,153,124	6-Oct-15		Numerex Corp.*

LP	US	Method and system for untethered two-way voice communication for an alarm system	Issued	27-Sep-13			9,177,464	3-Nov-15		Numere Corp.*
LP	US	Delivery of Security Solutions Based on Demand	Issued	8-Nov-13			9,235,855	12-Jan-16		Numere Corp.*
LP	US	Delivery of Alarm System Event Data and Audio Over Hybrid Network	Issued	20-Feb-14			9,350,871	24-May-16		Numere Corp.*
LP	US	Method and Apparatus for Communication of System Information in a Wireless System	issued	25-Apr-14	US-2014-0334372	13-Nov-14	10,009,831	26-Jun-18		Sierra Wireless Inc.
LP	US	Mobile Management Message Distribution and Active On-Network Determination	Issued	8-May-14			9,510,180	29-Nov-16		Numerex Corp.*
LP	US	Dynamic Reverse Geofencing	Issued	23-Jun-14			9,801,015	24-Oct-17		Numerex Corp.*
LP	US	Method and System for Mitigating Invasion Risk Associated with Stranger Interactions in a	Issued	16-Jul-14			9,183,730	10-Nov-15		Numerex Corp.*

		Security System Environment								
LP	US	Delivery of Alarm System Event Data and Audio	Issued	4-Aug-14			9,462,135	4-Oct-16		Numerex Corp.*
LP	US	Method and System for Detecting Alarm System Tampering	Issued	24-Oct-14			9,449,497	20-Sep-16		Numerex Corp.*
LP	US	Offender Monitor with Managed Rate of Location Reading	Issued	27-Oct-14			9,773,392	26-Sep-17		Numerex Corp.*
LP	US	Offender Monitor with Orientation Based Monitoring	Issued	28-Oct-14			9,401,082	26-Jul-16		Numerex Corp.*
LP	US	Method and System for Generating Geofences for Managing Offender Movement	Issued	28-Oct-14			9,875,638	23-Jan-18		Numerex Corp.*
LP	US	Method and System For Energy Management of an Offender Monitor	Issued	6-Nov-14			9,582,982	28-Feb-17		Numerex Corp.*
LP	US	Method and System for Managing a Location Detector	Issued	3-Dec-14			9,820,223	14-Nov-17		Numerex Corp.*
LP	US	Alarm System IP Network with PSTN Output	Issued	16-Jan-15			9,356,798	31-May-16		Numerex Corp.*
LP	US	System and Method for Using Alarm System Zones for	Issued	26-May-15			9,824,575	21-Nov-17		Numerex Corp.*

		Remote or Mobile Objects								
LP	US	Method and System for Locating a Wireless Tracking Device Associated with a Network of Alarm Panels	Issued	1-Jul-15			9,503,848	22-Nov-16		Numere Corp.*
LP	US	Method and System for Locating a Wireless Tracking Device	Issued	1-Jul-15			9,794,742	17-Oct-17		Numere Corp.*
LP	US	System and Method for Camera Registration	Issued	8-Jul-15			11,055,724	6-Jul-21		Numerex Corp.*
LP	US	Motor Fault Detection System and Method	Issued	19-Aug-15			10,107,675	23-Oct-18		Numerex Corp.*
LP	US	Mobile Management Message Distribution and Active On-Network Determination	Issued	23-Sep-15			9,763,025	12-Sep-17		Numerex Corp.*
LP	US	Method and System for Locating a Personal Emergency Response System (PERS) Device Based on Real Estate Lockbox Interaction	Issued	8-Jan-16			10,304,317	28-May-19		Numerex Corp.*

LP	US	"Method and Apparatus for Communicating System Information and Random Access in a Wireless System	Issued	7-Apr-16	US-2016-0302024	13-Oct-16	10,111,067	23-Oct-18		Sierra Wireless Inc.
LP	US	Offender Monitor Messaging System	Issued	28-Jul-16			9,877,172	23-Jan-18		Numere Corp.*
LP	US	Method And System For Locating A Wireless Tracking Device	Issued	5-Sep-17	US20170366931 A1	21-Dec-17	10,264,391	16-Apr-19		Numere Corp.*
PAT	US	Method and Apparatus for Multi-Transport Block Grant Transmissions (Multi-DCI TBI HARQ)	Pending as part of D18062510	9-Aug-18						Sierra Wireless Inc.
PAT	US	DMRS for a 2 sub-carrier pi/2 BPSK Modulation in an OFDMA system	Published	16-Jan-19	US20190222388	18-Jul-19				Sierra Wireless Inc.
PAT	US	METHOD AND APPARATUS FOR DEVICE TO DEVICE COMMUNICATION FOR CELLULAR	Pending	30-Oct-19						Sierra Wireless Inc.

		DEVICES; All information related to D19102910PR2 has been moved to D19092510PR2 because the two disclosures are related - SB: 5th May 2020								
PAT	US	Method and Apparatus for Resource Allocation for Half Duplex Frequency Division Duplexing in a Wireless Communication System	Pending	8-Oct-20	US-2021-0028918	28-Jan-21				Sierra Wireless Inc.

ABANDONED OR CLOSED PATENTS

Type	Country	Title	Status	Official Filing Date	Publication No.	Publication Date	Patent/ Registration No.	Issue Date	Expiry Date	Assignee
PAT	DE	Cognitive Wireless System	Validation	9-Jul-08	EP2304989	6-Apr-11	EP2304989 DE 602009045735.7	26-Apr-17		Sierra Wireless, Inc.
PAT	FR	Cognitive Wireless System	Validation	9-Jul-08	EP2304989	6-Apr-11	EP2304989	26-Apr-17		Sierra Wireless, Inc.

PAT	GB	Cognitive Wireless System	Validation	9-Jul-08	EP2304989	6-Apr-11	EP2304989	26-Apr-17		Sierra Wireless Inc.
PAT	US	Selective File Provisioning Depending on Mode of Operation of an Electronic Device Capable of Assuming a Plurality of Operating Modes	Issued	12-Jul-10	US 2012-0011175	12-Jan-12	8,612,494	17-Dec-13	10/29/2030	Sierra Wireless Inc.
PAT	CN	Method and System for Performing Position Updates in a Wireless Communication System	Issued	11-Jan-12	CN 102804883 A	28-Nov-12	ZL201080031420.6	2-Nov-16		Sierra Wireless, Inc.
VAL	DE	Method and System for Performing Position Updates in a Wireless Communication System	Validation	11-May-10	EP2430864 DE 60 2010 048494.7		2430864	14-Feb-18		Sierra Wireless, Inc.
VAL	FR	Method and System for Performing Position Updates in a Wireless Communication System	Validation		2430864		2430864	14-Feb-18		Sierra Wireless, Inc.
VAL	GB	Method and System for Performing Position Updates in	Validation		2430864		2430864	14-Feb-18		Sierra Wireless, Inc.

		a Wireless Communication System								
VAL	NL	Method and System for Performing Position Updates in a Wireless Communication System	Validation		2430864		2430864	14-Feb-18		Sierra Wireless Inc.
	DE	Method and System for Wireless Communication with Machine-to-Machine Devices	Validation							
PAT	EP	Method and System for Wireless Communication with Machine-to-Machine Devices	Allowed	14-Jun-13	2862374	22-Apr-15				Sierra Wireless, Inc.
	FR	Method and System for Wireless Communication with Machine-to-Machine Devices	Validation							
	GB	Method and System for Wireless Communication with Machine-to-Machine Devices	Validation							
PAT	GB	Wireless transmission of media to an	Published	23-Oct-13	GB2508294	28-May-14				Cambridge Executive Limited

		audio/visual output device								(D.B.A. Blue Creatior
PAT	DE	Method and Apparatus for Broadcast Channel Decoding	Validation	2-Apr-14	EP2982167		EP2982167	28-Feb-18		Sierra Wireless Inc.
PAT	FR	Method and Apparatus for Broadcast Channel Decoding	Validation	2-Apr-14	EP2982167		EP2982167	28-Feb-18		Sierra Wireless Inc.
PAT	GB	Method and Apparatus for Broadcast Channel Decoding	Validation	2-Apr-14	EP2982167		EP2982167	28-Feb-18		Sierra Wireless, Inc.
LP	CN	Method and Apparatus for Determining Time-Varying Limitations of a Power Source	Issued	16-May-14	CN 105379040A	2-Mar-16	ZL 201480038955.4.	16-Oct-18		Sierra Wireless, Inc.
VAL	DE	Method and Apparatus for Determining Time-Varying Limitations of a Power Source	Validation	16-May-14	EP3005511	13-Apr-16	DE602014049559.1 (EP3005511)	3-Jul-19		Sierra Wireless, Inc.
LP	EP	Method and Apparatus for Determining Time-Varying Limitations of a Power Source	Issued	16-May-14	EP3005511	13-Apr-16	EP3005511	3-Jul-19	-	Sierra Wireless, Inc.
VAL	FR	Method and Apparatus for Determining Time-	Validation	16-May-14	EP3005511	13-Apr-16	EP3005511	3-Jul-19		Sierra Wireless, Inc.

		Varying Limitations of a Power Source								
PAT	EP	Abbreviated Blind Detection in Wireless Communication Systems Including LTE	Published	9-Mar-15	3120644	25-Jan-17				Sierra Wireless, Inc.
PAT	WO	Abbreviated Blind Detection in Wireless Communication Systems including LTE	Published	9-Mar-15	WO 2015/139127	24-Sep-15				Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Communication of System Information in a Wireless System	Issued	6-Nov-15	EP3216311	17-Aug-17	3216311	14-Aug-19		Sierra Wireless, Inc.
PCT	WO	Method and Apparatus for Communication of System Information in a Wireless System	Published	6-Nov-15	WO 2016/070285	12-May-16				Sierra Wireless, Inc.
PAT	EP	Method and Apparatus for Communicating System Information and Random Access in a Wireless System	Pending	7-Apr-16	EP3281475	13-Oct-16				Sierra Wireless, Inc.

PAT	CN	Method and Apparatus for Resource Allocation for Half Duplex Frequency Division Duplexing in a Wireless Communication System	Pending	13-May-16						Sierra Wireless Inc.
PAT	WO	Method and Apparatus for Communicating System Information and Random Access in a Wireless System	Pending	7-Apr-16	WO 2016/161510	13-Oct-16				Sierra Wireless, Inc.
PAT	WO	Method and Apparatus for Paging Terminals in a Wireless Communication System	Published	4-Nov-16	WO 2017/075713	11-May-17				Sierra Wireless, Inc.
VAL	FR	TLS Abbreviated Session Identifier Protocol	Validation	9-May-13		25-Mar-15	EP2850776	27-Sep-17		Sierra Wireless, Inc.
PAT	EP	SUBSCRIPTION AND CHARGING CONTROL FOR WIRELESS COMMUNICATIONS BETWEEN PROXIMATE DEVICES	Published	1-Feb-13	2810492	10-Dec-14				Sierra Wireless, Inc.

PAT	CN	UICC Encapsulated in Printed Circuit Board of Wireless Terminal	Issued	2-May-13	CN 104365186 A	18-Feb-15	CN 104365186 B	22-Aug-17		Sierra Wireless Inc.
PAT	EP	Method, Apparatus and System for Uplink Radio Resource Allocation in an LTE Communication System	Issued	4-Oct-13	2904864	12-Aug-15	2904864	18-Sep-19		Sierra Wireless Inc.
PAT	WO	Method and System for Hybrid Automatic Repeat Request Combining on an LTE Downlink Control Channel	Published	28-Dec-12	WO 2014/100898	3-Jul-14				Sierra Wireless, Inc.
PAT	WO	Method and Apparatus for Resource Allocation for Half Duplex Frequency Division Duplexing in a Wireless Communication System	Published	13-May-16	WO 2016/179711	17-Nov-16				Sierra Wireless, Inc.
PAT	WO	Method and System for Transmitting Control Information for User Equipment	Published	23-Sep-16	WO 2017/049413	30-Mar-17				Sierra Wireless, Inc.

PAT	WO	Method and System for Paging User Equipment	Pending	3-Oct-16	WO 2017/054092	6-Apr-17				Sierra Wireless Inc.
PAT	WO	Methods and Apparatuses for User Equipment Access to a Wireless Communication System	Published	29-Sep-17	WO 2018/058255 -	5-Apr-18	-	-	30-Sep-17	Sierra Wireless Inc.
PAT	WO	Broadcast Downlink Control Information Decodable by Variable Bandwidth	Published	18-Aug-17	WO2018032110	22-Feb-18				Sierra Wireless, Inc.
PAT	WO	Method and Apparatus for Secure Software Update	Pending	11-Jun-19						Sierra Wireless, Inc.
PAT	WO	2 Tone in-phase pi/2 BPSK Sub-PRB Modulation	Published	14-Nov-18	WO2019/095057	23-May-19				Sierra Wireless, Inc.
PAT	WO	Methods and Systems for Remote Software Update	Pending	3-Aug-18						Sierra Wireless Inc.
LP	US	Method and Apparatus for Register Setting Via Multiplexed Chip Contacts	Issued	22-Dec-14	US-2016-0182250	23-Jun-16	9,832,037	28-Nov-17		Sierra Wireless, Inc.
LP	US	Efficient Notification Of	Issued	4-Sep-03	US 2005-0055443	10-Mar-05	7624147	24-Nov-09	Projected tb April 29,	Sierra Wireless, Inc.

		New Electronic Mail Arrival							2026 (4-Sep-23 + 968 PTA)	
PAT	EP	Broadcast Downlink Control Information Decodable by Variable Bandwidth	Published	28-Feb-19	EP3501191	26-Jun-19				Sierra Wireless Inc.
	US	Device for controlling the operation of a radiocommunication electronic module, and corresponding electronic circuit	Issued	1-Dec-2008	US 2011-0021159		US 8838039	16-Sep-14		Sierra Wireless S.A.
	US	Method for managing the execution of a software architecture of a radiocommunication circuit with constant processor frequency, corresponding computer program product and circuit	Issued	16-Jul-2008	US 2012-0042191		US 8650412	11-Feb-14		Sierra Wireless, S.A.
	US	Method for detecting the scrambling of a radiocommunicatio	Issued	11-Jul-2008	US 2012-0170754		US 8565439	22-Oct-13		Sierra Wireless, S.A.

		n network, and corresponding storage means and circuit								
	US	Radio data transmission method employing several different pilot patterns, corresponding base station, mobile, system and reception method	Issued	16-Apr-2004	US 2008-0107135		US 8611376	17-Dec-13		Sierra Wireless S.A.

TRADEMARKS

Registered Trademarks

Trademark:	Owner	Country	Regn No.:	Regn date:
AIRPRIME 1560-261	Sierra Wireless, Inc.	Brazil	840563310	May 14, 2016
AIRPRIME 1560-204	Sierra Wireless, Inc.	Canada	TMA807,260	Sep 22, 2011
AIRPRIME 1560-237-E	Sierra Wireless, Inc.	US	4,110,874	Mar 13, 2012
AIRPRIME 1560-240	Sierra Wireless, Inc.	China	8581057	Aug 7, 2010
AIRPRIME	Sierra Wireless, Inc.	Australia	1376348	Aug 6, 2010

1560-242				
AIRPRIME 1560-238	Sierra Wireless, Inc.	EU	9300815	Aug 6, 2010
AIRPRIME 1560-241	Sierra Wireless, Inc.	Hong Kong	301683081	Aug 6, 2010
AIRPRIME 1560-239	Sierra Wireless, Inc.	Japan	5517547	Aug 31, 2012
AIRPRIME 1560-267	Sierra Wireless, Inc.	Korea	40-1093529	Mar 12, 2015
AIRPRIME 1560-243	Sierra Wireless, Inc.	New Zealand	828430	Aug 6, 2010
AIRPRIME 1560-276-E	Sierra Wireless, Inc.	South Africa	2014/11094	May 2, 2014
AIRVANTAGE 1560-203	Sierra Wireless, Inc.	Canada	TMA849,519	Apr 25, 2013
AIRVANTAGE 1560-206	Sierra Wireless, Inc.	EU	8773004	Jun 16, 2010
AIRVANTAGE 1560-208	Sierra Wireless, Inc.	New Zealand	817956	Jul 8, 2010
AIRVANTAGE 1560-207	Sierra Wireless, Inc.	Australia	1339232	Jan. 4, 2010
AIRVANTAGE 1560-210	Sierra Wireless, Inc.	Hong Kong	301509769	Dec. 28, 2009

AIRVANTAGE 1560-268	Sierra Wireless, Inc.	Korea	45-0054823	Mar 12, 2015
AIRVANTAGE (Class 9) 1560-209	Sierra Wireless, Inc.	China	8009329	Jan. 20, 2010
AIRVANTAGE (Class 38) 1560-209	Sierra Wireless, Inc.	China	8009328	Jan. 20, 2010
AIRVANTAGE (Class 42) 1560-209	Sierra Wireless, Inc.	China	8009327	Jan. 20, 2010
AIRVANTAGE (Class 9) 1560-275-E	Sierra Wireless, Inc.	South Africa	2014/11094	May 2, 2014
AIRVANTAGE (Class 38) 1560-280-E	Sierra Wireless, Inc.	South Africa	2014/11092	May 2, 2014
AIRVANTAGE (Class 42) 1560-281-E	Sierra Wireless, Inc.	South Africa	2014/11093	May 2, 2014
AIRVANTAGE 1560-205	Sierra Wireless, Inc.	US	4,243,932	Nov 20, 2012
CF3 1560-294-E	Sierra Wireless, Inc.	Canada	TMA953,746	Oct 28, 2016
CF3 1560-295-E	Sierra Wireless, Inc.	US	5,153,592	Mar 7, 2017

HEART OF THE WIRELESS MACHINE 1560-161	Sierra Wireless, Inc.	Canada	TMA432,491	Aug. 26, 1994
INMOTION SOLUTIONS 1560-289	Sierra Wireless, Inc.	Canada	TMA951,759	Oct 7, 2016
INMOTION SOLUTIONS (Class 9) 1560-292-E	Sierra Wireless, Inc.	South Africa	2015/11070	Apr 29, 2015
INMOTION SOLUTIONS (Class 37) 1560-293-E	Sierra Wireless, Inc.	South Africa	2015/11071	Apr 29, 2015
LEGATO 1560-264-E	Sierra Wireless, Inc.	Canada	TMA943,123	Jul 12, 2016
LEGATO 1560-272	Sierra Wireless, Inc.	EU	12664066	Aug 1, 2014
LEGATO 1560-283-E	Sierra Wireless, Inc.	Japan	5828117	Feb 19, 2016
LEGATO 1560-265	Sierra Wireless, Inc.	US	4,698,092	Mar 10, 2015
LEGATO & Design 1560-269-E	Sierra Wireless, Inc.	Canada	TMA946,523	Aug 17, 2016
LEGATO & Design 1560-270-E	Sierra Wireless, Inc.	US	4,853,539	Nov 17, 2015
MANGOH 1560-324	Sierra Wireless, Inc.	AU	1865495	Mar 5, 2017

MANGOH 1560-321	Sierra Wireless, Inc.	CA	TMA1020154	April 26, 2019
MANGOH 1560-320-E	Sierra Wireless, Inc.	EU	016473481	Aug 14, 2017
MANGOH 1560-322-E	Sierra Wireless, Inc.	US	5,578,114	Oct 9, 2018
MANGOH & Design 1560-303-E	Sierra Wireless, Inc.	Canada	TMA951,403	Oct 4, 2016
MANGOH & Design 1560-304-E	Sierra Wireless, Inc.	US	5,184,368	Apr 18, 2017
MANGOH & Design (horizontal) 1560-306-E	Sierra Wireless, Inc.	Canada	TMA956,052	Nov 22, 2016
MANGOH & Design (horizontal) 1560-307-E	Sierra Wireless, Inc.	US	5,174,239	Apr 4, 2017
MANGOH & Design (horizontal) 1560-310-E	Sierra Wireless, Inc.	EU	15478787	Oct. 27, 2016
OCTAVE 1560-333	Sierra Wireless, Inc.	EU	018049451	Sep 3, 2019
PROJECT MANGOH 1560-296-E	Sierra Wireless, Inc.	Canada	TMA943,947	Jul 21, 2016
PROJECT MANGOH 1560-305-E	Sierra Wireless, Inc.	EU	14754212	Nov 2, 2015
PROJECT MANGOH 1560-297-E	Sierra Wireless, Inc.	US	5,102,879	Dec 20, 2016

SIERRA WIRELESS 1560-214	Sierra Wireless, Inc.	Australia	1343459	Feb 3, 2010
SIERRA WIRELESS 1560-196	Sierra Wireless, Inc.	Canada	TMA816,324	Jan 27, 2012
SIERRA WIRELESS 1560-213	Sierra Wireless, Inc.	EU	8849911	Jul 27, 2010
SIERRA WIRELESS 1560-314-E	Sierra Wireless, Inc.	EU	15795008	Sep 2, 2016
SIERRA WIRELESS in Chinese Characters 1560-177	Sierra Wireless, Inc.	China	3302964	Oct. 21, 2003
SIERRA WIRELESS (Class 9) 1560-217	Sierra Wireless, Inc.	China	8078368	Apr 14, 2014
SIERRA WIRELESS (Class 42) 1560-224	Sierra Wireless, Inc.	China	8078367	Feb 22, 2010
SIERRA WIRELESS 1560-313-E	Sierra Wireless, Inc.	Chile	1234957	Jan 25, 2017
SIERRA WIRELESS 1560-216	Sierra Wireless, Inc.	Hong Kong	301542753	Feb 10, 2010
SIERRA WIRELESS 1560-218	Sierra Wireless, Inc.	Japan	5614114	Sep 13, 2013
SIERRA WIRELESS 1560-316	Sierra Wireless, Inc.	Madrid	1387060	Nov 8, 2016

SIERRA WIRELESS 1560-316MX	Sierra Wireless, Inc.	Madrid	1387060	Jan. 27, 2020
SIERRA WIRELESS 1560-316PH	Sierra Wireless, Inc.	Madrid	1387060	Jun 11, 2018
SIERRA WIRELESS 1560-316US	Sierra Wireless, Inc.	Madrid	1387060	May 7, 2019
SIERRA WIRELESS 1560-215	Sierra Wireless, Inc.	New Zealand	819031	Sep 3, 2013
SIERRA WIRELESS (Class 9) 1560-277-E	Sierra Wireless, Inc.	South Africa	2014/11088	May 2, 2014
SIERRA WIRELESS (Class 42) 1560-278-E	Sierra Wireless, Inc.	South Africa	2014/11089	May 2, 2014
SIERRA WIRELESS (Class 45) 1560-279-E	Sierra Wireless, Inc.	South Africa	2014/11090	May 2, 2014
SIERRA WIRELESS 1560-212	Sierra Wireless, Inc.	US	4,177,465	Jul 24, 2012
SIERRA WIRELESS in Chinese Characters 1560-182	Sierra Wireless, Inc.	Hong Kong	200313261	Sept. 3, 2002
SIERRA WIRELESS & Design 1560-229	Sierra Wireless, Inc.	Australia	1372559	Jul 16, 2010

SIERRA WIRELESS & Design (Class 9 & 42) 1560-255	Sierra Wireless, Inc.	Australia	1519957	Oct 15, 2012
SIERRA WIRELESS & Design 1560-211-E	Sierra Wireless, Inc.	Canada	TMA930,708	Mar 4, 2016
SIERRA WIRELESS & Design 1560-227	Sierra Wireless, Inc.	EU	9251191	May 2, 2011
SIERRA WIRELESS & Design (Class 9) 1560-231	Sierra Wireless, Inc.	China	8550458	Jun 14, 2014
SIERRA WIRELESS & Design (Class 38) 1560-244	Sierra Wireless, Inc.	China	8550457	Aug 6, 2010
SIERRA WIRELESS & Design (Class 41) 1560-245	Sierra Wireless, Inc.	China	8550550	Aug 6, 2010
SIERRA WIRELESS & Design (Class 42) 1560-246	Sierra Wireless, Inc.	China	8550549	Aug 6, 2010
SIERRA WIRELESS & Design 1560-232	Sierra Wireless, Inc.	Hong Kong	301665108	Jul 15, 2010
SIERRA WIRELESS & Design (Class 41) 1560-249	Sierra Wireless, Inc.	India	2002172	Aug 2, 2010

SIERRA WIRELESS & Design 1560-230	Sierra Wireless, Inc.	Japan	5601546	Jul 26, 2013
SIERRA WIRELESS & Design (Class 9) 1560-233-E	Sierra Wireless, Inc.	India	2002170	Aug 2, 2010
SIERRA WIRELESS & Design (Class 9) 1560-286-E	Sierra Wireless, Inc.	Korea	40-1196972	Aug 18, 2016
SIERRA WIRELESS & Design 1560-236	Sierra Wireless, Inc.	Korea	45-0045992	Aug 27, 2013
SIERRA WIRELESS & Design 1560-228	Sierra Wireless, Inc.	New Zealand	827305	Sep 3, 2013
SIERRA WIRELESS & Design 1560-235	Sierra Wireless, Inc.	Taiwan	1530738	Aug 1, 2012
SIERRA WIRELESS & Design 1560-234	Sierra Wireless, Inc.	Singapore	T1009218B	Jul 21, 2010
SIERRA WIRELESS & Design 1560-226	Sierra Wireless, Inc.	US	4,287,452	Feb 12, 2013
SIERRA WIRELESS SKYLIGHT 1560-262-E	Sierra Wireless, Inc.	Canada	TMA918,986	Oct 30, 2015

SIERRA WIRELESS SKYLIGHT 1560-263-E	Sierra Wireless, Inc.	US	4,958,080	May 17, 2016
SIERRA WIRELESS HEART OF THE WIRELESS MACHINE & Design 1560-129	Sierra Wireless, Inc.	Australia	931923	Oct. 10, 2005
SIERRA WIRELESS HEART OF THE WIRELESS MACHINE & Design 1560-132	Sierra Wireless, Inc.	India	1321252	Nov. 19, 2004
SIERRA WIRELESS HEART OF THE WIRELESS MACHINE & Design 1560-136	Sierra Wireless, Inc.	Taiwan	1078183	Jan. 1, 2004
SWOOSH Design 1560-138	Sierra Wireless, Inc.	US	2,726,412	June 17, 2003
AIRLINK 1559-140-E	Sierra Wireless America, Inc.	Australia	1609556	Mar 5, 2014
AIRLINK 1559-108	Sierra Wireless America, Inc.	Canada	TMA775,836	Aug 31, 2010
AIRLINK 1559-141	Sierra Wireless America, Inc.	EU	11935483	Nov 20, 2013
AIRLINK 1559-109-E	Sierra Wireless America, Inc.	US	3,902,433	Jan. 11, 2011
AIRLINK 1559-119	Sierra Wireless America, Inc.	Internation al	957777	Feb. 4, 2008

AIRLINK 1559-119JP	Sierra Wireless America, Inc.	Japan	957777	Feb. 4, 2008
AIRLINK 1559-110-E	Sierra Wireless America, Inc.	New Zealand	783705	Feb. 4, 2008
ALEOS 1559-112	Sierra Wireless America, Inc.	Canada	TMA752,709	Nov. 10, 2009
ALEOS 1559-113	Sierra Wireless America, Inc.	Taiwan	1343665	Jan. 1, 2009
ALEOS 1559-122	Sierra Wireless America, Inc.	US	3,510,793	Oct. 7, 2008
ALEOS 1559-126	Sierra Wireless America, Inc.	International	953067	Feb. 4, 2008
ALEOS 1559-126AU	Sierra Wireless America, Inc.	Australia	953067	Feb. 4, 2008
ALEOS 1559-126EU	Sierra Wireless America, Inc.	EU	953067	Feb. 4, 2008
ALEOS 1559-126JP	Sierra Wireless America, Inc.	JP	953067	Feb. 4, 2008
ALEOS 1559-126SG	Sierra Wireless America, Inc.	Singapore	953067	Feb. 4, 2008
ALEOS 1559-128-E	Sierra Wireless America, Inc.	New Zealand	783706	Aug. 3, 2007
SIERRA WIRELESS AIRLINK 1559-143	Sierra Wireless, Inc.	Korea	40-1240459	Mar. 17, 2017

UPLINK 1559-148	Sierra Wireless America, Inc.	US	4,683,816	Feb. 10, 2015
UPLINK 1559-149	Sierra Wireless America, Inc.	US	4,013,326	Aug. 16, 2011
UPLINK 1559-150	Sierra Wireless America, Inc.	US	3,279,435	Aug. 14, 2007
UPLINK GPS 1559-147	Sierra Wireless America, Inc.	US	4,546,091	Jun. 10, 2014
WAVECOM & Design 2271-101	Sierra Wireless SA	Canada	TMA532,531	Sep 12, 2000
WAVECOM & Design 2271-100	Sierra Wireless SA	Canada	TMA532,417	Sep 11, 2000
WAVECOM Design 2271-107	Sierra Wireless SA	US	2,836,393	Apr 27, 2004
OPEN AT 2271-113	Sierra Wireless SA	US	4,488,483	Feb 25, 2014

Pending Trademark Applications

Trademark:	**Owner**	**Country**	**Appln No.:**	**Filing date:**
OCTAVE 1560-330	Sierra Wireless, Inc.	CA	1,926,213	Oct 19, 2018
OCTAVE 1560-332	Sierra Wireless, Inc.	CA	1,931,736	Nov 21, 2018

OCTAVE 1560-331	Sierra Wireless, Inc.	US	88/203,627	Nov 22, 2018
SIERRA WIRELESS 1560-319	Sierra Wireless, Inc.	CA	1,824,191	Feb 23, 2017
SIERRA WIRELESS 1560-260	Sierra Wireless, Inc.	Brazil	840616023	Aug 20, 2013
SIERRA WIRELESS 1560-302	Sierra Wireless, Inc.	Vietnam	4-2015-32739	Nov 20, 2015

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Country	Owner	Copyright Registration No./Registration Date	Title	Category of Work / Status	Copyright Description
CA	Sierra Wireless, Inc.	490003 February 19, 2001	AirBoard	Literary/Artistic / Registered	Instruction manuals for wireless modems and graphics associated with the wireless modems