

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6776965

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ANAREN, INC.	05/26/2021

RECEIVING PARTY DATA

Name:	TTM TECHNOLOGIES INC.
Street Address:	200 EAST SANDPOINTE
Internal Address:	SUITE 400
City:	SANTA ANA
State/Country:	CALIFORNIA
Postal Code:	92707

PROPERTY NUMBERS Total: 45

Property Type	Number
Patent Number:	9270003
Patent Number:	7061315
Patent Number:	7005937
Patent Number:	7659792
Patent Number:	10403950
Patent Number:	8138848
Patent Number:	8547186
Patent Number:	9035715
Patent Number:	9390613
Patent Number:	8044749
Application Number:	63123400
Patent Number:	9209511
Application Number:	15653704
Patent Number:	9178257
Patent Number:	8969733
PCT Number:	US2014058193
PCT Number:	US2017027298
Application Number:	15486361
Patent Number:	9214715

PATENT

Property Type	Number
Patent Number:	10581399
Patent Number:	8860529
Patent Number:	6713792
Patent Number:	7605672
PCT Number:	US2011058597
Patent Number:	8519251
Patent Number:	7005942
Patent Number:	8350642
Application Number:	62968807
PCT Number:	US2021015810
Application Number:	17162773
Patent Number:	9634635
Patent Number:	9064622
Patent Number:	9929456
Patent Number:	9450572
Patent Number:	9350062
Patent Number:	7728694
Patent Number:	8183952
Patent Number:	7646261
Patent Number:	8638181
Patent Number:	8896373
PCT Number:	US2018045841
Patent Number:	10535912
Patent Number:	9614694
Patent Number:	6784852
Patent Number:	6784851

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER: 062651

NAME OF SUBMITTER: REBECCA L. ENDSLEY, PARALEGAL

SIGNATURE:	/Rebecca L. Endsley/
DATE SIGNED:	06/23/2021
Total Attachments: 6 source=Anaren Patent Assignment signed May 26 2021#page1.tif source=Anaren Patent Assignment signed May 26 2021#page2.tif source=Anaren Patent Assignment signed May 26 2021#page3.tif source=Anaren Patent Assignment signed May 26 2021#page4.tif source=Anaren Patent Assignment signed May 26 2021#page5.tif source=Anaren Patent Assignment signed May 26 2021#page6.tif	

PATENT ASSIGNMENT

1. WHEREAS, ANAREN, INC., with offices at 6635 Kirkville Road, East Syracuse, New York 13057 USA ("Assignor"), is the owner of the entire right, title, and interest in and to certain letters patent and patent applications throughout the world and the inventions disclosed therein; and
2. WHEREAS, TTM TECHNOLOGIES INC., with offices at 200 East Sandpointe, Suite 400, Santa Ana, California 92707 USA ("Assignee"), is desirous of acquiring said right, title and interest of Assignor;
3. NOW, THEREFORE, in consideration of good and valuable consideration by Assignee to Assignor in hand paid, receipt of all of which is hereby acknowledged, Assignor has agreed to and does hereby sell, assign and transfer unto Assignee, its successors and assigns, all of Assignor's right, title and interest in and throughout the world, in and to said letters patent and patent application and all reissues thereof and reexamination certificates therefore, and the inventions disclosed therein, including Assignor's full right to sue for and recover all damages recoverable from past infringements of said letters patent; including specifically, without limiting the generality of the foregoing, the worldwide letters patent and patent applications listed in Appendix A; and Assignor has further agreed to and does hereby sell, assign and transfer unto Assignee, its successors and assigns, all of Assignor's right, title and interest in and throughout the world in and to said inventions, any other patent applications (including provisional, non-provisional, divisional, continuing, or reissue applications) based in whole or in part on said worldwide letters patent or patent applications or in whole or in part on said inventions, and any and all letter patent (including extensions thereof) of any country which have been or may be granted on any of the aforesaid patent applications or on said inventions or any part thereof; including, specifically, without limiting the generality of the foregoing, the worldwide letters patent and patent applications listed in Appendix A.
4. TO BE HELD AND ENJOYED BY Assignee, its successors and assigns, to the full ends of the respective terms for which said patents have been or may be granted, as fully and entirely as the same would have been held and enjoyed by Assignor had this sale and assignment not been made.
5. AND Assignor hereby authorizes and requests the Patent Offices of the countries wherein said patent applications are filed to issue any and all letters patent which may be granted upon said foreign country patent applications to Assignee, its successors and assigns.
6. AND Assignor hereby agrees to execute without further consideration any further lawful documents and any further assurances, and any provisional, non-provisional, divisional, continuing, reissue or other applications for patents of any

ASSIGNEE (TTM TECHNOLOGIES INC.)

P. Vassilev

By: Petya Vassilev
Title: Director Global Legal Affairs

Date: May 26, 2021

ACKNOWLEDGMENT

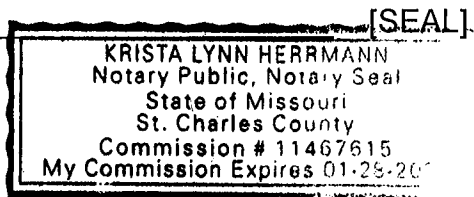
STATE OF Missouri)
COUNTY OF St. Louis) SS.

On this 26th day of May, 2021, before me, a Notary Public,
personally appeared Petya Vassilev
to me to be the person described, in and who executed, the foregoing
assignment and acknowledged that he/she executed said instrument as his/her
free act and deed.

In Testimony Whereof, I have hereunto set my hand and affixed my official
seal the day and year first above written.

Krista Lynn Herrmann
Notary Public

My Commission Expires:



country, that may be deemed necessary by said Assignee, its successors or assigns fully to secure its interest as aforesaid in and to said inventions or any part thereof, and in and to said several patents or any of them.

7. AND Assignor covenants that Assignor has granted no right or license to make, use or sell said inventions to anyone except said Assignee, that prior to the execution of this deed, Assignor's right, title, and interest in said inventions has not been otherwise encumbered, and that Assignor has not executed and will not execute any instrument in conflict herewith.

ASSIGNOR (ANAREN, INC.)

P. Vassilev
By: Petya Vassilev
Title: Director - Global Legal Affairs
Date: May 26, 2021

ACKNOWLEDGMENT

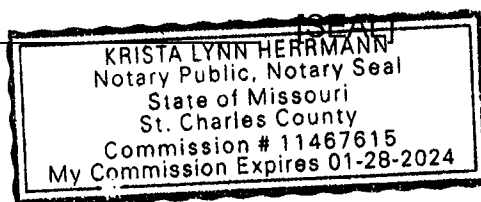
STATE OF Missouri)
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to me to be the person described, in and who executed, the foregoing
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In Testimony Whereof, I have hereunto set my hand and affixed my official
seal the day and year first above written.

Krista Lynn Herrmann
Notary Public

My Commission Expires:



APPENDIX A

Title	Ctry	Serial #	Filed Date	Patent #	Issue Date	Status
A STRIPLINE ASSEMBLY HAVING FIRST AND SECOND PRE-FIRED CERAMIC SUBSTRATES BONDED TO EACH OTHER THROUGH A CONDUCTIVE BONDING LAYER	US	13/803,644	03/14/2013	9,270,003	02/23/2016	EXPIRED
AUXILIARY AMPLIFIER NETWORK	US	10/862,800	06/07/2004	7,061,315	06/13/2006	ISSUED
CIRCULATOR AND METHOD OF MANUFACTURE	US	10/445,766	05/27/2003	7,005,937	02/28/2006	EXPIRED
CIRCULATOR DEVICE AND A METHOD FOR ASSEMBLY	US	12/055,717	03/26/2008	7,659,792	02/09/2010	ABANDONED
CIRCULATOR WITH MODIFIED BIAS TO PREVENT HIGHER ORDER MODES	US	15/415,219	01/25/2017	10,403,950	09/03/2019	ISSUED
CIRCULATOR/ISOLATOR WITH AN ASYMMETRIC RESONATOR	US	12/611,517	11/03/2009	8,138,848	03/20/2012	ABANDONED
COMPACT BALUN	US	12/543,295	08/18/2009	8,547,186	10/01/2013	ISSUED
COMPACT BROADBAND IMPEDANCE TRANSFORMER	US	13/782,279	03/01/2013	9,035,715	05/19/2015	ISSUED
COMPUTER IMPLEMENTED SYSTEM FOR LOCATING USERS AND A METHOD THEREOF	US	14/520,291	10/21/2014	9,390,613	07/12/2016	EXPIRED
COUPLER DEVICE	US	12/392,649	02/25/2009	8,044,749	10/25/2011	ISSUED
DEVICES AND METHODS FOR FORMING ENGINEERED THERMAL PATHS OF PRINTED CIRCUIT BOARDS BY USE OF SECONDARY CONDUCTIVE LAYERS	US	63/123,400	12/09/2020			PENDING
DOHERTY POWER AMPLIFIER NETWORK	US	13/652,042	10/15/2012	9,209,511	12/08/2015	ISSUED
ENCAPSULATION OF CIRCUIT TRACE	US	15/653,704	07/19/2017			PUBLISHED
ENCAPSULATION OF CIRCUIT TRACE	EP	17183106.8	07/25/2017			PUBLISHED
ENCAPSULATION OF CIRCUIT TRACE	CN	201710681901.5	08/10/2017			PUBLISHED
ENCAPSULATION OF CIRCUIT TRACE	HK	19126338.3	07/25/2017			PUBLISHED
FIRST AND SECOND MICROSTRIP NETWORKS STACKED IN AN	US	13/803,975	03/14/2013	9,178,257	11/03/2015	ISSUED

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Title	Ctry	Serial #	Filed Date	Patent #	Issue Date	Status
INVERTED ARRANGEMENT TO EACH OTHER USING AN INTEGRATED SUPPORT AND SHIELDING STRUCTURE						
HIGH POWER RF CIRCUIT	US	14/041,155	09/30/2013	8,969,733	03/03/2015	ISSUED
HIGH POWER RF CIRCUIT	WO	PCT/US2014/058193	09/30/2014			NAT PHASE
HIGH POWER RF CIRCUIT	EP	14783753.8	09/30/2014			PUBLISHED
HIGH POWER RF PART FOR IMPROVED MANUFACTURABILITY	WO	PCT/US2017/027298	04/13/2017			NAT PHASE
HIGH POWERED RF PART FOR IMPROVED MANUFACTURABILITY	US	15/486,361	04/13/2017			PUBLISHED
HYBRID COUPLER DEVICE HAVING PLURAL TRANSMISSION LINE STRUCTURES WITH UNWOUND-REWOUND GEOMETRY	US	13/840,137	03/15/2013	9,214,715	12/15/2015	ISSUED
IMPEDANCE MATCHING COMPONENT	US	15/220,940	07/27/2016	10,581,399	03/03/2020	ISSUED
IMPEDANCE TRANSFORMING COUPLER	US	13/229,254	09/09/2011	8,860,529	10/14/2014	ISSUED
INTEGRATED CIRCUIT HEAT SINK DEVICE INCLUDING THROUGH HOLE TO FACILITATE COMMUNICATION	US	10/060,563	01/30/2002	6,713,792	03/30/2004	ISSUED
INVERTED STYLE BALUN WITH DC ISOLATED DIFFERENTIAL PORTS	US	11/668,682	01/30/2007	7,605,672	10/20/2009	ISSUED
INVERTED STYLE BALUN WITH DC ISOLATED DIFFERENTIAL PORTS	US					PROPOSED
MAGNETIC INSTRUMENT PICKUP	WO	PCT/US2011/058597	10/31/2011			ABANDONED
MAGNETIC INSTRUMENT PICKUP	US	12/915,987	10/29/2010	8,519,251	08/27/2013	ISSUED
NON-SWITCHING ADAPTABLE 4-27A POWER SPLITTER/COMBINER	US	10/719,817	11/21/2003	7,005,942	02/28/2006	ISSUED
POWER SPLITTER/COMBINER	US	12/501,171	07/10/2009	8,350,642	01/08/2013	LAPSED
PRINTED CIRCUIT BOARD ASSEMBLIES WITH ENGINEERED THERMAL PATHS AND METHODS OF MANUFACTURE	US	62/968,807	01/31/2020			EXPIRED

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Title	Ctry	Serial #	Filed Date	Patent #	Issue Date	Status
PRINTED CIRCUIT BOARD ASSEMBLIES WITH ENGINEERED THERMAL PATHS AND METHODS OF MANUFACTURE	WO	PCT/US2021/015810	01/29/2021			PENDING
PRINTED CIRCUIT BOARD ASSEMBLIES WITH ENGINEERED THERMAL PATHS AND METHODS OF MANUFACTURE	US	17/162,773	01/29/2021			PENDING
RF ATTENUATOR DEVICE AND SYSTEM	CN	201510600420.8	09/18/2015	ZL201510600420.8	03/08/2019	ISSUED
RF ATTENUATOR DEVICE AND SYSTEM	US	14/836,079	08/26/2015	9,634,635	04/25/2017	ISSUED
RF RESISTOR WITH LOSSY TRACES	US	13/800,765	03/13/2013	9,064,622	06/23/2015	ISSUED
RF TERMINATION	US	15/062,362	03/07/2016	9,929,456	03/27/2018	ISSUED
SELF-CASCADABLE PHAS SHIFTER	US	14/571,323	12/16/2014	9,450,572	09/20/2016	ISSUED
STRESS RELIEVED HIGH POWER RF CIRCUIT	US	14/457,653	08/12/2014	9,350,062	05/24/2016	ISSUED
SURFACE MOUNT STRIPLINE DEVICES HAVING CERAMIC AND SOFT BOARD HYBRID MATERIALS	US	11/829,420	07/27/2007	7,728,694	06/01/2010	ISSUED
SURFACE MOUNTABLE CIRCULATOR	US	12/759,891	04/14/2010	8,183,952	05/22/2012	ISSUED
VERTICAL INTER-DIGITAL COUPLER	US	11/419,091	05/18/2006	7,646,261	01/12/2010	ISSUED
WIDEBAND BALUN USING RE-ENTRANT COUPLED LINES AND FERRITE MATERIAL	US	13/212,643	08/18/2011	8,638,181	01/28/2014	ISSUED
WIDEBAND DOHERTY AMPLIFIER NETWORK	US	13/792,275	03/11/2013	8,896,373	11/25/2014	ISSUED
WIDEBAND GYSEL POWER DIVIDER	WO	PCT/US2018/045841	08/08/2018			ABANDONED
WIDEBAND GYSEL POWER DIVIDER	US	15/672,611	08/09/2017	10,535,912	01/14/2020	ISSUED
WIDEBAND RF DEVICE	US	14/803,529	07/20/2015	9,614,694	04/04/2017	ISSUED
QUADRIFILAR ANTENNA SERIAL FEED	US	10/272,324	10/16/2002	6,784,852	08/31/2004	ISSUED
QUADRIFILAR ANTENNA SERIAL FEED	US	10/207,582	07/29/2002	6,784,851	08/31/2004	ISSUED