503960900 08/15/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4007555

		NEW ASSIGNMENT			
NATURE OF CONVEYAN	CE:	ASSIGNMENT			
CONVEYING PARTY DA					
		Name	Execution Date		
TOMOYA KOMATSU			06/06/2016		
HIDEHITO SHIMIZU			06/06/2016		
JOJI FUJIWARA	06/06/2016				
TETSUYA TSURUNARI			06/06/2016		
HIROYUKI NAKAMURA			06/14/2016		
RECEIVING PARTY DA					
Name:	SKYWORKS PANASONIC FILTER SOLUTIONS JAPAN CO., LTD.				
Street Address:	1006, OAZA KADOMA				
City:	KADOMA-SHI, OSAKA-FU				
State/Country:	JAPAN				
Postal Code:	571-0050				
	571 0050				
PROPERTY NUMBERS	Total: 1				
Property Type		Number			
Application Number: 150		067304			
Application Number:	1.00				
	ATA				
CORRESPONDENCE DA	ATA (94	9)231-3206			
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CORRESPONDENCE DA Fax Number: <i>Correspondence will be using a fax number, if p</i> Phone: Email: Correspondent Name:	ATA (94) e sent to the provided; if 949 ip.d DO 522	9)231-3206 <i>e e-mail address first; if that is unsuc</i> <i>that is unsuccessful, it will be sent v</i> 92313073 docketing@skyworksinc.com NALD BOLLELLA			
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08/15/2016

DATE SIGNED:

Total Attachments: 3

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PÅTENT REEL: 039437 FRAME: 0602

ASSIGNMENT

WHEREAS, we, Tomoya Komatsu of Osaka-Fu, Japan; Hidehito Shimizu of Osaka-Fu, Japan; Joji Fujiwara of Osaka-Fu, Japan; Tetsuya Tsurunari of Osaka-Fu, Japan; and Hiroyuki Nakamura of Osaka-Fu, Japan, have invented certain new and useful ACOUSTIC WAVE ELEMENTS, ANTENNA DUPLEXERS AND ELECTRONIC DEVICES for which we have made application for Letters Patent of the United States as fully set forth and described in the specification duly filed in the United States Patent and Trademark Office on March 11, 2016 and assigned Application Serial No. 15/067,304, which derived priority benefit from U.S. Provisional Patent Application No. 62/132,046 filed March 12, 2015; and

WHEREAS, Skyworks Panasonic Filter Solutions Japan Co., Ltd., a *kabushiki kaishe* incorporated under the laws of Japan, having a principal office address at 1006, Oaza Kadoma, Kadoma-Shi, Osaka-Fu 571-0050, Japan, is desirous of acquiring the entire interest in and to said invention, said non-provisional and provisional applications, any and all inventions and improvements disclosed in said applications, and all Letters Patent to be had therefor.

NOW THEREFORE, to all whom it may concern, be it known, that for good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, we, said Tomoya Komatsu, Hidehito Shimizu, Joji Fujiwara, Tetsuya Tsurunari, and Hiroyuki Nakamura have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto said Skyworks Panasonic Filter Sclutions Japan Co., Ltd., the whole right, title, and interest in and to said ACOUSTIC WAVE ELEMENTS, ANTENNA DUPLEXERS AND ELECTRONIC DEVICES, the aforeseld applications, and any and all inventions and improvements disclosed in the atoresaid non-provisional and provisional applications for patent, as fully set forth and described therein, and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent derived from or claiming priority to the aforesaid applications which have been or shall be filed in the United States and in and to the United States Letters Patent to be issued thereon for the territory of the United States, and all corresponding foreign counterpart applications derived from or claiming priority to the aforesaid United States non-provisional and provisional patent applications and related applications as prepared for and filed in any and all foreign countries, said whole right, title, and interest being the same for said Skyworks Panasonic Filter Solutions Japan Co., Ltd.'s own use and for the use of its assigns, successors, and legal representatives to the full end of the term for which all said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made. And we hereby acknowledge, agree, and understand that this assignment conveys any and all other related intellectual property rights including, but not so limited to, copyright rights, copyrightable subject matter, know how, trade secrets, copyright registrations, and reproduction rights, including any and all right to sue for past, current, or future infringement of the intellectual property rights hereby sold, assigned, and transferred, and we further hereby waive any and all moral rights under 17 U.S.C. § 106A or as so otherwise provided.

And we, for ourselves, our heirs, assigns, and legal representatives hereby covenant to and with seid assignee Skyworks Panasonic Filter Solutions Japan Co., Ltd., its assigns, successors, and legal representatives, that we have full right to sell, assign, and transfer the whole right, title, and interest in and to said inventions and improvements, said non-provisional and provisional applications, and all the Letters Patent to be had therefor and that the entire interest herein conveyed is free from all prior assignment, grant, mortgage, license, or other encumbrance

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whatsoever. And we also, for ourselves, our heirs, assigns, and legal representatives hereby lurther covenant to and with said assignee Skyworks Panasonic Filter Solutions Japan Co., Ltd., its assigns, successors, and legal representatives to fully cooperate therewith in the prosecution of the aforesaid applications in the United States Patent and Trademark Office and in any and all loreign jurisdictions, said cooperation extending to any U.S. or foreign divisional, continuing, substitute, renewal, reissue, or any other application derived from or claiming priority to the aforesaid applications, and including the execution of additional declarations, assignments, and other formal documents as may be required in connection therewith.

And we do hereby covenant and agree not to challenge or oppose, on any grounds whatsoever, the validity of this assignment or to assist or request any third party to contest the validity of this assignment, and we further agree not to contest the validity or enforceability of any intellectual property rights assigned herein, or to assist or request any third party to contest the validity or enforceability of any intellectual property rights assigned herein. And we also agree that no course of conduct or dealing by us shall act as an amendment, modification, or waiver of any provision of this assignment unless specifically set forth in writing.

And we do hereby authorize and request the United States Commissioner of Patents to issue Letters Patent to said Skyworks Panasonic Filter Solutions Japan Co., Ltd. as the assignee of our entire right, title, and interest therein.

IN TESTIMONY WHEREOF, we have hereunto set our respective hand and seal on the day and month of the year 2016 as indicated below.

Date: Jun 6, 2016 <u>K. 15 C. Tomeya Kami</u>ti nova Komatsu

The undersigned hereby centilies that he/she personally witnessed the foregoing signature of Tomoya Komatau handwritten in his/her personce in the city of Osaka, Japan...

15 on this & day of Sight -, 2016 Witnessed by Englineer Wilnoss Till <u>Shinnishi Seki</u> and ... Print:

Hidekito Shinzu A. 1---

Date: Jun. 6, 2016

Hidehito Shimizu

The undersigned hereby certifies that he/she personally witnessed the foregoing signature of Hidehito Shimizu handwritten in his/her presence in the city of Osaka. Japan

Witnessed by Vilness Signature <u>Exfinder</u> <u>, Okine i Okii Si</u> Witness Norri Set Print Wilness Tills

Assignment 15/067,304

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Joji Fujiwa		Joj, Égjinose L.S.	Date	r <u>June 6 2016</u>		
	The undersign	d hereby certilies that he/she handwritten in his/her	personally witness presence in the city	ed the loregoing signature of Joë Fullwara y of Osaka, Japan.		
	linessed by	Ra		on this 6 day of <u>June</u> 2016		
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		******		******		
、 「 Telsuya T)) / / / / / / / / / / / / /	<u>Tersozo Taromeri L.S.</u>	Date	s. Jone 6 . 2016		
n	The undersigned hereby centilies that he/she personally witnessed the foregoing signature of Tetsuya Taurunan handwritten in his/her presence in the city of Osaka, Japan.					
w	linessed by	R 12 -		on this 6 day of 10338 2016		
ą	nnt <u>S</u> I	<u>MARE AL SAC</u> Witness Name		En <u>Şi nacr</u> Wilness Tille		
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<u>学述</u> Hiroyuki I	公手 円ir Nakamura	<u>zyaki Aldamia L.S.</u>	Dalı	s: <u>June 14, 20/6</u>		
The undersigned hereby certifies that he/she personally witnessed the foregoing signature of Micryski Nakamura hendwritten in his/her presence in the city of Osaka, Japan.						
W	Vilnessed by	V 15 Witness Bignature		on this 19 day of <u>Franks</u> , 2016		
f	Print:	<u>Nami chi Saki</u> Witness Name	and	Englinger Winoss Tills		
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**RECORDED: 08/15/2016**