

## PATENT ASSIGNMENT COVER SHEET

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| <b>SUBMISSION TYPE:</b>   | NEW ASSIGNMENT                                      |
| <b>NATURE OF CONVEYANCE:</b>  | ASSIGNMENT  |
| <b>CONVEYING PARTY DATA</b>   |   |
| <b>Name</b>   | <b>Execution Date</b>                               |
| YOSUKE HAMAOKA  | 06/07/2016  |
| MITSUHIRO FURUKAWA  | 06/13/2016  |
| TORU YAMAJI   | 06/06/2016  |
| <b>RECEIVING PARTY DATA</b>   |   |
| <b>Name:</b>  | SKYWORKS PANASONIC FILTER SOLUTIONS JAPAN CO., LTD. |
| <b>Street Address:</b>  | 1006, OAZA KADOMA                                   |
| <b>City:</b>  | KADOMA-SHI, OSAKA-FU                                |
| <b>State/Country:</b>   | JAPAN   |
| <b>Postal Code:</b>   | 571-0050  |
| <b>PROPERTY NUMBERS Total: 1</b>  |   |
| <b>Property Type</b>  | <b>Number</b>                                       |
| Application Number:   | 14810122  |
| <b>CORRESPONDENCE DATA</b>  |   |
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| <b>ATTORNEY DOCKET NUMBER:</b>  | PNSC 14123003(JP)JPWOUS                             |
| <b>NAME OF SUBMITTER:</b>   | DONALD BOLLELLA                                     |
| <b>SIGNATURE:</b>   | /Donald Bollella/                                   |
| <b>DATE SIGNED:</b>   | 08/15/2016  |
| <b>Total Attachments: 2</b>   |   |
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| source=14-810122_Assignment#page2.tif   |   |

## ASSIGNMENT

WHEREAS, we, Yosuke Hamaoka of Osaka-Fu, Japan, Mitsuhiro Furukawa of Hyogo-Ken, Japan, and Toru Yamaji of Kyoto-Fu, Japan, have invented certain new and useful ELASTIC WAVE 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 July 27, 2015 and assigned Application Serial No. 14/810,122 which derived priority benefit from PCT International Patent Application No. PCT/JP2015/003372 filed July 3, 2015 which in turn derived priority benefit from Japanese Application No. 2014-155795 filed July 31, 2014; and

WHEREAS, Skyworks Panasonic Filter Solutions Japan Co., Ltd., a *kabushiki kaisha* 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, the aforesaid United States, PCT International 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 Yosuke Hamaoka, Mitsuhiro Furukawa, and Toru Yamaji have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto said Skyworks Panasonic Filter Solutions Japan Co., Ltd., the whole right, title, and interest in and to said ELASTIC WAVE DEVICES, the aforesaid applications, and any and all inventions and improvements disclosed in the aforesaid United States and PCT International 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 and PCT International 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. § 105A or as so otherwise provided.

And we, for ourselves, our heirs, assigns, and legal representatives hereby covenant to and with said 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 United States and PCT International 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 whatsoever. And we also, for ourselves, our heirs, assigns, and legal representatives hereby further 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 foreign

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.

濱岡 陽介 Yosuke Hamada L.S. Date: June 7 2016  
Yosuke Hamada

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

Witnessed by 関 俊一 on this 7 day of June, 2016  
Witness Signature

Print: Shunichi Seki and Engineer  
Witness Name Witness Title

古川 光弘 Mitsuhiro Furukawa L.S. Date: June 13 2016  
Mitsuhiro Furukawa

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

Witnessed by 関 俊一 on this 13 day of June, 2016  
Witness Signature

Print: Shunichi Seki and Engineer  
Witness Name Witness Title

山根 徹 Toru Yamaji L.S. Date: June 6, 2016  
Toru Yamaji

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

Witnessed by 関 俊一 on this 6 day of June, 2016  
Witness Signature

Print: Shunichi Seki and Engineer  
Witness Name Witness Title