

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5866523

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
YAXING ZHANG	01/03/2019
SHAUN BRYCE CHAMBERLAIN	08/07/2018
SRIVATSAN JAYARAMAN	01/03/2019
JEN-CHIEN CHANG	10/22/2018
ROMAN ZBIGNIEW ARKISZEWSKI	08/07/2018
REZA KASNAVI	09/11/2018
JOHN C. BALDWIN	09/12/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	Skyworks Solutions, Inc.
<b>Street Address:</b>	20 Sylvan Road
<b>City:</b>	Woburn
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	01801
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15953759
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(949)854-1008
<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>	
<b>Phone:</b>	9492313073
<b>Email:</b>	ip.docketing@skyworksinc.com
<b>Correspondent Name:</b>	DONALD BOLLELLA
<b>Address Line 1:</b>	5221 CALIFORNIA AVENUE, 21-1
<b>Address Line 4:</b>	IRVINE, CALIFORNIA 92617
<b>ATTORNEY DOCKET NUMBER:</b>	SWKS 18177901(P1)US
<b>NAME OF SUBMITTER:</b>	DONALD BOLLELLA
<b>SIGNATURE:</b>	/Donald Bollella/
<b>DATE SIGNED:</b>	12/13/2019

**Total Attachments: 9**

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## ASSIGNMENT

WHEREAS, we, Yaxing Zhang (张亚兴) residing at 43001 Mayfair Park Terrace, Fremont, California 94538; Shaun Bryce Chamberlain residing at 231 Friends Farm Way, Stokesdale, North Carolina 27357; Srivatsan Jayaraman residing at 2170 Esperanca Avenue, Santa Clara, California, 95054; Jen-Chien Chang (张仁健) residing at 59 Bronco, Irvine, California, 92602; Roman Zbigniew Arkiszewski residing at 8404 Chartwell Drive, Oak Ridge, North Carolina, 27310; Reza Kasnavi residing at 468 Santa Alicia, Solana Beach, California, 92075; and John C. Baldwin residing at 1306 Alexander Street, Simi Valley, California 93065, have invented a certain new and useful RECONFIGURABLE FRONT-END MODULE FOR CARRIER AGGREGATION 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 April 16, 2018 and assigned Application Serial No. 15/953,759, which derived priority benefit from U.S. Provisional Patent Application Serial No. 62/485,997 filed April 16, 2017; and

WHEREAS, Skyworks Solutions, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, having a principal business address at 20 Sylvan Road, Woburn, Massachusetts 01801, 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 Yaxing Zhang (张亚兴), Shaun Bryce Chamberlain, Srivatsan Jayaraman, Jen-Chien Chang (张仁健), Roman Zbigniew Arkiszewski, Reza Kasnavi, and John C. Baldwin have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto said Skyworks Solutions, Inc., the whole right, title, and interest in and to said RECONFIGURABLE FRONT-END MODULE FOR CARRIER AGGREGATION, the aforesaid applications, and any and all inventions and improvements disclosed in the aforesaid 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 Solutions, Inc.'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 Solutions, Inc., 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 whatsoever. And we also, for ourselves, our heirs, assigns, and legal representatives hereby further covenant to and with said assignee Skyworks Solutions, Inc., 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 Solutions, Inc. 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 2018 as indicated below.

\_\_\_\_\_ L.S. \_\_\_\_\_ L.S. \_\_\_\_\_  
Yaxing Zhang 张亚星 Date

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California )  
 )  
County of \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2018 before me, \_\_\_\_\_, Notary Public, personally appeared Yaxing Zhang (张亚星), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Official Seal)

\_\_\_\_\_  
Notary Public

*Shaun Bryce Chamberlain*  
Shaun Bryce Chamberlain

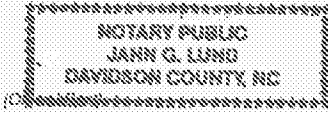
Date: 8-7-18

Acknowledgment

Guilford County, North Carolina

I certify that Shaun Bryce Chamberlain personally appeared before me this day acknowledging to me that he voluntarily signed the foregoing document for the purposes stated therein.

Date 8/7/2018



*Jahn G. Lund*  
(Official Signature of Notary)  
Jahn G. Lund Notary Public  
(Notary's printed or typed name)  
My commission expires 11/19/2019

.....  
L.S. Date: \_\_\_\_\_  
Srivasen Jayaraman

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }  
County of \_\_\_\_\_ }

On this \_\_\_\_\_ day of \_\_\_\_\_, 2018 before me, \_\_\_\_\_ Notary Public, personally appeared Srivasen Jayaraman, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in the authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Official Seal) \_\_\_\_\_  
Notary Public

.....  
*Jen-Chien Chang* L.S. *陳仁健* L.S. 10/22/2018  
Jen-Chien Chang Date

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California }  
County of Orange }

On this 20 day of Oct, 2018 before me, Jeanne C. Benedict, Notary Public, personally appeared Jen-Chien Chang (dit. it), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in the authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



*Jeanne C. Benedict*  
Notary Public

Roman Zbigniew Arkiszewski L.S.  
Roman Zbigniew Arkiszewski

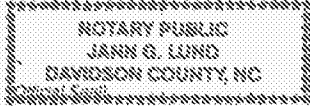
Date: 7-Aug-2018

Acknowledgment

Guilford County, North Carolina

I certify that Roman Zbigniew Arkiszewski personally appeared before me this day acknowledging to me that he voluntarily signed the foregoing document for the purposes stated therein.

Date: 8/1/2018



Jann G. Lund  
(Official Signature of Notary)  
Jann G. Lund  
(Notary's printed or typed name)  
My commission expires: 11/19/2019

Reza Kasnavi L.S.  
Reza Kasnavi

Date: 9-11-2018

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

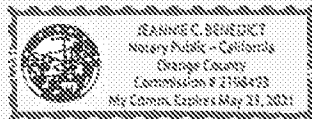
County of Orange

On this 11<sup>th</sup> day of Sept, 2018 before me, Jeanne C. Benedict, Notary Public, personally appeared Reza Kasnavi, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Official Seal)



Jeanne C. Benedict  
Notary Public

John C. Baldwin L.S.  
John C. Baldwin

Date: 9-12-2019

Acknowledgment

..... County, North Carolina

I certify that John C. Baldwin personally appeared before me this day acknowledging to me that he voluntarily signed the foregoing document for the purposes stated therein.

Date: .....

(Official Seal)

Jann G. Lund  
(Official Signature of Notary)  
Jann G. Lund  
(Notary's printed or typed name)  
My commission expires: .....

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

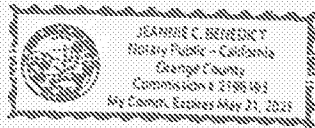
County of Ventura

On this 12<sup>th</sup> day of September, 2019 before me, Jeannie C. Benedict, Notary Public, personally appeared John C. Baldwin, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Official Seal)



*Jeannie C. Benedict*  
Notary Public

**ASSIGNMENT**

WHEREAS, we, Yaxing Zhang (张兴) residing at 43001 Mayfair Park Terrace, Fremont, California 94538; Shaun Bryce Chamberlain residing at 231 Friends Farm Way, Stokesdale, North Carolina 27357; Srivatsan Jayaraman residing at 2170 Esperanca Avenue, Santa Clara, California, 95054; Jen-Chien Chang (陈建) residing at 59 Bronco, Irvine, California, 92602; Roman Zbigniew Arkiszewski residing at 8404 Chartwell Drive, Oak Ridge, North Carolina, 27310; Reza Kasnavi residing at 458 Santa Alicia, Solana Beach, California, 92075, and John C. Baldwin residing at 1306 Alexander Street, Simi Valley, California 93065, have invented a certain new and useful RECONFIGURABLE FRONT-END MODULE FOR CARRIER AGGREGATION 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 April 16, 2018 and assigned Application Serial No. 15/953,759, which derived priority benefit from U.S. Provisional Patent Application Serial No. 62/485,997 filed April 16, 2017; and

WHEREAS, Skyworks Solutions, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, having a principal business address at 20 Sylvan Road, Woburn, Massachusetts 01801, 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 Yaxing Zhang (张兴), Shaun Bryce Chamberlain, Srivatsan Jayaraman, Jen-Chien Chang (陈建), Roman Zbigniew Arkiszewski, Reza Kasnavi, and John C. Baldwin have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over unto said Skyworks Solutions, Inc., the whole right, title, and interest in and to said RECONFIGURABLE FRONT-END MODULE FOR CARRIER AGGREGATION, the aforesaid applications, and any and all inventions and improvements disclosed in the aforesaid 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 Solutions, Inc.'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 Solutions, Inc., 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 whatsoever. And we also, for ourselves, our heirs, assigns, and legal representatives hereby further covenant to and with said assignee Skyworks Solutions, Inc., 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 Solutions, Inc. 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 as indicated below.

[Signature] L.S. [Signature] L.S. 01/03/2019  
Yaxing Zhang 张亚星 Date

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

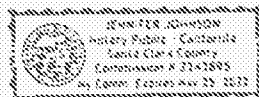
State of California  
County of San Diego

On this 3 day of January, 2019, before me, Jennifer Johnson, Notary Public, personally appeared Yaxing Zhang (张亚星), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Officer Seal)



[Signature]  
Notary Public

*Shaun Bryce Chamberlain*  
Shaun Bryce Chamberlain

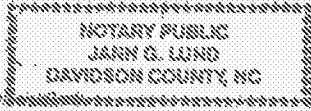
Date: 8-7-18

Acknowledgment

Swain County, North Carolina

I certify that Shaun Bryce Chamberlain personally appeared before me this day acknowledging to me that he voluntarily signed the foregoing document for the purposes stated therein.

Wit: 8/7/2018



*Jann G. Lund*  
(Official Signature of Notary)  
Jann G. Lund Notary Public  
(Notary's printed or typed name)  
My commission expires: 11/19/2019

J. Sivatsan L.S.  
Sivatsan Jayaraman

Date: 1/3/2019

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of San Mateo

On this 3 day of January, 2019, before me, Jennie Johnson, Notary Public, personally appeared Sivatsan Jayaraman, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



*Jennie Johnson*  
Notary Public

Jen-Chien Chang L.S. 張仁建

L.S. 10/21/2018  
Date

Acknowledgment

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of Orange

On this 22 day of October, 2018, before me, Jeanette C. Benedict, Notary Public, personally appeared Jen-Chien Chang (all (s)), who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



*Jeanette C. Benedict*  
Notary Public

..... L.S. Date: .....  
Roman Zbigniew Arkiszewski

Acknowledgment

..... County North Carolina

I certify that Roman Zbigniew Arkiszewski personally appeared before me this day acknowledging to me that he voluntarily signed the foregoing document for the purposes stated therein.

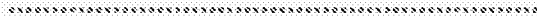
Date: .....

.....  
(Official Signature of Notary)

..... Notary Public  
(Notary's printed or typed name)

(Official Seal)

My commission expires: .....



..... L.S. Date: .....  
Reza Kasravi

Acknowledgment

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State of California            1  
  1  
County of Orange           1

On this ..... day of ....., 2018 before me, Jeanne C. Benedict, Notary Public, personally appeared Reza Kasravi, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

(Official Seal)

.....  
Notary Public



..... L.S. Date: .....  
John C. Baldwin

Acknowledgment

..... County North Carolina

I certify that John C. Baldwin personally appeared before me this day acknowledging to me that he voluntarily signed the foregoing document for the purposes stated therein.

Date: .....

.....  
(Official Signature of Notary)

..... Notary Public  
(Notary's printed or typed name)

(Official Seal)

My commission expires: .....