

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
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EPAS ID: PAT4031171

SUBMISSION TYPE:	CORRECTIVE ASSIGNMENT
NATURE OF CONVEYANCE:	Corrective Assignment to correct the INVENTORS IN THE APPLICATION previously recorded on Reel 036925 Frame 0130. Assignor(s) hereby confirms the OF ITS ENTIRE INTEREST.

CONVEYING PARTY DATA

Name	Execution Date
HUAN-NENG CHEN	10/20/2015
WILLIAM WU SHEN	10/21/2015
LAN-CHOU CHO	10/20/2015
FENG WEI KUO	10/20/2015
CHEWN-PU JOU	10/26/2015
TZE-CHIANG HUANG	07/12/2016
JACK LIU	08/04/2016
YUN-HAN LEE	08/04/2016

RECEIVING PARTY DATA

Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.
Street Address:	NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14885352

CORRESPONDENCE DATA

Fax Number:

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.

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Address Line 4: IRVINE, CALIFORNIA 92612

ATTORNEY DOCKET NUMBER:	18506-876
NAME OF SUBMITTER:	ANTHONY KING
SIGNATURE:	/Anthony King/

DATE SIGNED:	08/30/2016
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Total Attachments: 7

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PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3594822

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
HUAN-NENG CHEN	10/20/2015
WILLIAM WU SHEN	10/21/2015
LAN-CHOU CHO	10/20/2015
FENG WEI KUO	10/20/2015
CHEWN-PU JOU	10/26/2015
RECEIVING PARTY DATA	
Name:	TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD.
Street Address:	NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK
City:	HSINCHU
State/Country:	TAIWAN
PROPERTY NUMBERS Total: 1	
Property Type	Number
Application Number:	14885352
CORRESPONDENCE DATA	
Fax Number:	
<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>	
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Address Line 4:	NEWPORT BEACH, CALIFORNIA 92660
ATTORNEY DOCKET NUMBER:	18506-876
NAME OF SUBMITTER:	ANTHONY KING
SIGNATURE:	/Anthony King/
DATE SIGNED:	10/30/2015
Total Attachments: 2	
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source=US5480-Assignment#page2.tif	

US ONLY
P20150431US00**ASSIGNMENT**

WHEREAS, I(we), Tze-Chiang Huang, Jack Liu, Yun-Han Lee whose post office address(es) appear(s) below, hereinafter referred to as ASSIGNOR, have invented certain new and useful invention entitled **TRANSCIVER GROUP AND ASSOCIATED ROUTER** (hereinafter referred to as the INVENTION) for which an application for United States Letters Patent /Utility Patent is executed on even date herewith unless at least one of the following is checked:

- United States Design Patent was
- executed on:
- filed on: October 16, 2015 Serial No.: 14/885,352
- established by PCT International Patent Application No.: _____ filed: _____ designating the United States of America
- issued on _____ as U.S. Patent No.: _____

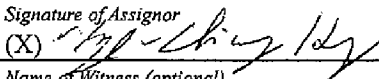
WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD. whose post office address is NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK, HSINCHU, TAIWAN, R.O.C. hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States and its territorial possessions;

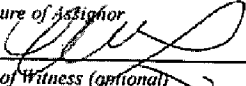
NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application for the full term or terms for which the same may be granted, including all priority rights under any International Convention.


ASSIGNOR further covenants that no assignments, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment;

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the INVENTION that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance, litigation and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ALSO, ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behoof; and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

Assignor Name Tze-Chiang Huang	Address 20843 Verde Vista Ln., Saratoga, CA 95070, U.S.A.
Signature of Assignor (X) 	Date of Signature (X) 7/12/2016
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name Jack Liu	Address 348-1, 6F, Fujing Street, Songshan District, Taipei, Taiwan 105-59
Signature of Assignor (X) 	Date of Signature (X) 8/4/2016
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name YUN-HAN LEE	Address No.3, Lane 3, Songcwei Rd., Baoshan Township, Hsinchu County 308, Taiwan (R.O.C.)
Signature of Assignor (X) 	Date of Signature (X) 08/04/2016
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name	Address
Signature of Assignor	Date of Signature
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

ASSIGNMENT

WHEREAS, I(we), CHEN, HUAN-NENG, SHEN, WILLIAM WU, CHO, LAN-CHOU, KUO, FENG WEI and JOU, CHEWN-PU whose post office address(es) appear(s) below, hereinafter referred to as ASSIGNOR, have invented certain new and useful invention entitled

TRANSCEIVER GROUP AND ASSOCIATED ROUTER

(hereinafter referred to as the INVENTION) for which an application for United States Letters Patent /Utility Patent is executed on even date herewith unless at least one of the following is checked:

- United States Design Patent was
 executed on:
 filed on: 16 October 2015 Serial No.: 14/885,352
 established by PCT International Patent Application No.: filed: designating the
 United States of America
 issued on _____ as U.S. Patent No.: _____

WHEREAS, TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY LTD. whose post office address is NO.8, LI-HSIN RD. 6, HSINCHU SCIENCE PARK, HSINCHU, TAIWAN, R.O.C. hereinafter referred to as ASSIGNEE, is desirous of acquiring the entire right, title and interest in and to the same in the United States and its territorial possessions;

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, I (we), ASSIGNOR, by these presents do sell, assign and transfer unto said ASSIGNEE, the entire right, title, and interest in and to said INVENTION and application throughout the United States of America, including any and all Letters Patent granted on any division, continuation, continuation-in-part and reissue of said application for the full term or terms for which the same may be granted, including all priority rights under any International Convention.

ASSIGNOR further covenants that no assignments, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this Assignment;

ALSO, ASSIGNOR hereby agrees to execute any documents that legally may be required in connection with the filing, prosecution and maintenance of said application or any other patent application(s) in the United States for said INVENTION, including additional documents that may be required to affirm the rights of ASSIGNEE in and to said INVENTION, all without further consideration. ASSIGNOR also agrees, without further consideration and at ASSIGNEE'S expense, to identify and communicate to ASSIGNEE at ASSIGNEE'S request documents and information concerning the INVENTION that are within ASSIGNOR'S possession or control, and to provide further assurances and testimony on behalf of ASSIGNEE that lawfully may be required of ASSIGNOR in respect of the prosecution, maintenance, litigation and defense of any patent application or patent encompassed within the terms of this instrument. ASSIGNOR'S obligations under this instrument shall extend to ASSIGNOR'S heirs, executors, administrators and other legal representatives.

ALSO, ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue any and all Letters Patent referred to above to ASSIGNEE, as the ASSIGNEE of the entire right, title and interest in and to the same, for ASSIGNEE'S sole use and behoof; and for the use and behoof of ASSIGNEE'S legal representatives and successors, to the full end of the term for which such Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR had this assignment and sale not been made.

Assignor Name CHEN, HUAN-NENG	Address NO.11, LN. 902, SEC. 6, TAIWAN BLVD., SHALU DIST, TAICHUNG CITY 433, TAIWAN (R.O.C.)
Signature of Assignor (X) <i>Chen Huan-Neng</i>	Date of Signature (X) <i>2015.10.20</i>
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name SHEN, WILLIAM WU <i>Shen, William Wu</i>	Address SUITE 11, 4F, NO. 188, KUAN-HSIN RD., EAST DIST., HSINCHU CITY 300, TAIWAN (R.O.C.)
Signature of Assignor (X) <i>Shen, William Wu</i>	Date of Signature (X) 2015, 10, 21
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name CHO, LAN-CHOU <i>Cho, Lan-Chou</i>	Address 7F-1, NO.213, GUANXIN RD., EAST DIST., HSINCHU CITY 30072, TAIWAN (R.O.C.)
Signature of Assignor (X) <i>Cho, Lan-Chou</i>	Date of Signature (X) 2015-10-20
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name KUO, FENG WEI <i>Feng-Wei Kuo</i>	Address NO.12, ALY. 10, LN. 289, XUEFU E. RD., ZHUDONG TOWNSHIP, HSINCHU COUNTY 310, TAIWAN (R.O.C.)
Signature of Assignor (X) <i>Feng-Wei Kuo</i>	Date of Signature (X) 2015, 10, 20
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)

Assignor Name JOU, CHEWN-PU <i>Chengpu</i>	Address NO.123, 4F-10, PUTING 2ND RD., HSINCHU CITY, TAIWAN (R.O.C.)
Signature of Assignor (X) <i>Chengpu</i>	Date of Signature (X) 2015/10/26
Name of Witness (optional)	Name of Witness (optional)
Signature of Witness (optional)	Signature of Witness (Optional)