PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Ruediger Bauder	02/05/2013
Marcus Granger-Jones	02/05/2013
Nadim Khlat	02/05/2013

RECEIVING PARTY DATA

Name:	RF Micro Devices, Inc.
Street Address:	7628 Thorndike Road
City:	Greensboro
State/Country:	NORTH CAROLINA
Postal Code:	27409

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	13760159

CORRESPONDENCE DATA

Fax Number: 9192382301

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 919-238-2300
Email: patents@wt-ip.com

Correspondent Name: WITHROW & TERRANOVA, P.L.L.C.
Address Line 1: 100 REGENCY FOREST DRIVE

Address Line 2: SUITE 160

Address Line 4: CARY, NORTH CAROLINA 27518

ATTORNEY DOCKET NUMBER:	2867-1030
NAME OF SUBMITTER:	Sarah Breeze

Total Attachments: 9

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PATENT REEL: 029761 FRAME: 0464 P \$40.00 1376015



ASSIGNMENT

This Assignment made by us, Ruediger Bauder, a citizen of Germany, residing at

Schwaig 4, Feldkirchen-Westerham, Germany, 83620; Marcus Granger-Jones, a subject of the

United Kingdom, residing at 1230 Whispering Pines Drive, Scotts Valley, California, 95066; and

Nadim Khlat, a citizen of France, residing at 24 rue Pierre de Fermat, City of Cugnaux, Midi-

Pyrenees, France, hereinafter referred to as assignors;

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in

TUNABLE DUPLEXER ARCHITECTURE, for which we are about to make application for

Letters Patent of the United States, which claims the benefit of Provisional Patent Application

Serial Number 61/595,795, filed on February 7, 2012, and for which we have executed a

declaration; and

WHEREAS, RF Micro Devices, Inc., a corporation duly organized and existing under

the laws of the State of North Carolina and having a principal place of business at 7628

Thorndike Road, City of Greensboro, County of Guilford, State of North Carolina, hereinafter

referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said

invention as described in the specification executed by us concurrently herewith, and any and all

Letters Patent which shall be granted therefor;

NOW, THEREFORE, To All Whom It May Concern, be it known that for good and

valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the

said assignors, have sold, assigned, transferred and set over unto the said assignee, its successors

and assigns, the entire right, title and interest in and to the above-mentioned application and

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invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said assignee, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which 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 for the consideration aforesaid, we hereby covenant and agree to and with the said assignee, its successors and assigns, that at the time of the execution and delivery of these presents we are the joint and lawful owners of the entire right, title and interest in and to the invention, application and Letters Patent above-mentioned and that the same are unencumbered, and that we have good right and lawful authority to sell and convey the same in the manner herein set forth;

And for the consideration aforesaid, we hereby covenant and agree to and with the said assignee, its successors and assigns, that we will, whenever its counsel or the counsel of its successors and assigns, learned in the law, shall advise that an amendment, division, continuation, continuation-in-part, or substitution of, or any other proceeding in connection with said application, including interference proceedings, is lawful and desirable, sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue of the same without charge to our said assignee, its successors or assigns, but at its or their expense;

We hereby request the Commissioner for Patents to issue the Letters Patent in accordance

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with this instrument:

For the consideration aforesaid, we have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the said assignee, its successors, assigns or nominee, the entire right, title and interest in and to any and all Letters Patent for said invention which may be granted in countries foreign to the United States and in and to any applications for Letters Patent which may be filed for said invention in countries foreign to the United States and in and to the invention described in said application; and we hereby authorize and empower the said assignee, its successors, assigns or nominees to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successor, assignee, or nominee, in any and all countries where it may desire to file such application and where said application may be filed by another than the inventor; and we hereby covenant and agree to sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for procurement of Letters Patent, or other form of protection, for said invention or inventions in countries foreign to the United States, and for further investing or confirming the right and title therein to the assignee, its successors, assignee, or nominee, without charge to our said assignee, its successor, assignee or nominee, but at its or their expense;

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Feb 5 ⁴⁴ 2013 Date	Ruediger Bauder	
Date	Marcus Granger-Jones	
Date	Nadim Khlat	
IDR12005-1	3 of 3	2867-1030

ASSIGNMENT

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said assignors, have sold, assigned, transferred and set over unto the said assignee, its successors

and assigns, the entire right, title and interest in and to the above-mentioned application and

IDR12005-1 1 of 3 2867-1030 invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said assignee, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which 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 for the consideration aforesaid, we hereby covenant and agree to and with the said assignee, its successors and assigns, that at the time of the execution and delivery of these presents we are the joint and lawful owners of the entire right, title and interest in and to the invention, application and Letters Patent above-mentioned and that the same are unencumbered, and that we have good right and lawful authority to sell and convey the same in the manner herein set forth;

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For the consideration aforesaid, we have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the said assignee, its successors, assigns or nominee, the entire right, title and interest in and to any and all Letters Patent for said invention which may be granted in countries foreign to the United States and in and to any applications for Letters Patent which may be filed for said invention in countries foreign to the United States and in and to the invention described in said application; and we hereby authorize and empower the said assignee, its successors, assigns or nominees to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successor, assignee, or nominee, in any and all countries where it may desire to file such application and where said application may be filed by another than the inventor; and we hereby covenant and agree to sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for procurement of Letters Patent, or other form of protection, for said invention or inventions in countries foreign to the United States, and for further investing or confirming the right and title therein to the assignee, its successors, assignee, or nominee, without charge to our said assignee, its successor, assignee or nominee, but at its or their expense.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Date	Ruediger Bauder	
2-5-803	A GMr. In	
Date	Marcus Granger-Jongs	
Date	Nadim Khlat	
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ASSIGNMENT

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United Kingdom, residing at 1230 Whispering Pines Drive, Scotts Valley, California, 95066; and

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and assigns, the entire right, title and interest in and to the above-mentioned application and

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invention and in and to any and all Letters Patent of the United States which may hereafter be granted therefor, and in any and to any and all continuations, continuations-in-part, substitutions, divisions or reissues of said Letters Patent, the same to be held and enjoyed by the said assignee, for its interest, and for its own use and behalf, and the use and behalf of its successors and assigns, to the full end of the term for which 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 for the consideration aforesaid, we hereby covenant and agree to and with the said assignee, its successors and assigns, that at the time of the execution and delivery of these presents we are the joint and lawful owners of the entire right, title and interest in and to the invention, application and Letters Patent above-mentioned and that the same are unencumbered, and that we have good right and lawful authority to sell and convey the same in the manner herein set forth;

And for the consideration aforesaid, we hereby covenant and agree to and with the said assignee, its successors and assigns, that we will, whenever its counsel or the counsel of its successors and assigns, learned in the law, shall advise that an amendment, division, continuation, continuation-in-part, or substitution of, or any other proceeding in connection with said application, including interference proceedings, is lawful and desirable, sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for the procurement of valid Letters Patent for said invention, or for the reissue of the same without charge to our said assignee, its successors or assigns, but at its or their expense;

We hereby request the Commissioner for Patents to issue the Letters Patent in accordance

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with this instrument;

For the consideration aforesaid, we have sold, assigned, transferred and set over, and by these presents do sell, assign, transfer and set over, unto the said assignee, its successors, assigns or nominee, the entire right, title and interest in and to any and all Letters Patent for said invention which may be granted in countries foreign to the United States and in and to any applications for Letters Patent which may be filed for said invention in countries foreign to the United States and in and to the invention described in said application; and we hereby authorize and empower the said assignee, its successors, assigns or nominees to apply for Letters Patent or other form of protection on said invention in its own name or in the name of its successor, assignee, or nominee, in any and all countries where it may desire to file such application and where said application may be filed by another than the inventor; and we hereby covenant and agree to sign all papers and drawings, take all rightful oaths, and do all acts necessary or required to be done for procurement of Letters Patent, or other form of protection, for said invention or inventions in countries foreign to the United States, and for further investing or confirming the right and title therein to the assignee, its successors, assignee, or nominee, without charge to our said assignee, its successor, assignee or nominee, but at its or their expense;

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Date	Ruediger Bauder	
Date	Marcus Granger-Jones	
5th Feb 2013	Padentes	
Date /	Nadim Khlat	
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PATENT REEL: 029761 FRAME: 0474

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RECORDED: 02/06/2013