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HEET

U.S. DEPARTMENT OF COMMERCE  
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Atty. Docket No. 2867-159

To the Commissioner for Patents: Please record this document and return the original to the sender or copy thereof.

## 1. Name of conveying party(ies):

Kelvin Kai Tuan Yan

Kihong Kim

Luke Joseph

2-7-02

## 2. Name and address of receiving party(ies):

Name: RF Micro Devices, Inc.

Internal Address:

Street Address: 7628 Thorndike Road

City: Greensboro State: NC Zip: 27409

Country: USA

Additional name(s) & address(es) attached? ☐ Yes ☒ NoAdditional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name☐ Other

Execution Date: February 5, 2002

## 4. Application number(s) or registration numbers(s):

If this document is being filed together with a new application, the execution date of the application is: 2/05/2002

A. Patent Application No.(s)

10,072374

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Benjamin S. Withrow  
WITHROW & TERRANOVA, P.L.L.C.  
P.O. Box 1287  
Cary, NC 27512

## 6. Total number of applications and patents involved: .....1

## 7. Total fee (37 CFR 3.41):

\$40.00

☒ Enclosed☒ Authorized to be charged to deposit account

## 8. Deposit account number:

50-1732

(Attach duplicate of this page if paying by deposit account)

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## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*

Benjamin S. Withrow

Name of Person Signing

Signature

February 7, 2002

Date

Total number of pages including cover sheet, attachments, and document: 4

Mail documents to be recorded with required cover sheet information to:

Director of Patents and Trademarks, Box Assignments  
Washington, D.C. 20231

02/15/2002 0651REGI 00000011 10072374

04 FC:581

40.00 DP

PATENT  
REEL: 012584 FRAME: 0080

## ASSIGNMENT

This Assignment made by us, **Kelvin Kai Tuan Yan**, a citizen of Singapore, residing at 3501 Covent Oak Court, City of High Point, County of Guilford, State of North Carolina, **Kihong Kim**, a citizen of South Korea, residing at 1146-B Bridford Lake Circle, City of Greensboro, County of Guilford, State of North Carolina, and **Luke Joseph**, a citizen of the United States of America, residing at 1003 Skeet Club Road, City of High Point, County of Guilford, State of North Carolina, hereinafter referred to as assignors.

WITNESSETH: That,

WHEREAS, we are the joint inventors of certain new and useful improvements in **DIFFERENTIAL MIXER INJECTION WITH OPTIONAL STEP GAIN CONTROL** for which we are about to make application for Letters Patent of the United States, and for which we have executed a declaration .

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 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 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.

5 Feb 2002

Date



Kelvin Kai Tuan Yan

5 Feb 2002

Date



Kihong Kim

5 Feb 2002

Date



Luke Joseph