

07-28-2003



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T U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

Attorney's Docket No. 032674-198

7-22-03
To the Director of the United States Patent and Trademark Office

ed original documents or copy thereof.

1. Name of conveying party(ies):

Gregory T. BRAUNS, Russell C. DEANS, D. Lee
NEWMAN, Jr., and Brian WOROBEY

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

3. Nature of conveyance:

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

Execution Date: July 9, 2003

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

Name: Renesas Technology America, Inc.

Internal Address:

Street Address:
179 East Tasman Drive

City: San Jose State: CA Zip: 95134

Additional name(s) & address(es) attached? ☐ Yes ☒ No

4. Application number(s) or patent number(s):

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

A. Patent Application No.(s)
10/395,005

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☐ No

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

Name: Stephen J. Tytran

Internal Address:

Burns, Doane, Swecker & Mathis, L.L.P.
P.O. Box 1404

Street Address:

City: Alexandria State: VA Zip: 22313-1404

6. Total number of applications and patents involved: ☐

7. Total fee (37 CFR 3.41).....\$ 40.00

☒ Enclosed

☒ Authorized to be charged to deposit account

8. Deposit account number:

02-4800

(Attach duplicate copy 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.

Stephen J. Tytran, Reg. No. 45,846

Name of Person Signing

Signature

July 22, 2003
Date

Total number of pages including cover sheet, attachments, and documents:

3

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

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07/25/2003 6TON11 00000133 10395005

01 FC:8021

40.00 DP

PATENT
REEL: 014304 FRAME: 0443

JOINT ASSIGNMENT

THIS ASSIGNMENT, by Gregory T. BRAUNS, Russell C. DEANS, D. Lee NEWMAN, Jr., and Brian WOROBEY
residing at Raleigh, NC; Durham, NC; Raleigh, NC; and Durham, NC

(hereinafter referred to as "the Assignors"), witnesseth:

WHEREAS, the Assignor has invented certain new and useful improvements in the application for Letters Patent of the United States, entitled:

Current-Mode D/A Converter Having Variable Output Amplitude and Offset Control

- (1) ☐ which is a provisional application
 (a) ☐ bearing Application No. _____, filed on _____;
 (b) ☐ to be filed herewith; or
- (2) ☒ which is a non-provisional application
 (a) ☒ bearing Application No. 10/395,005, filed on March 21, 2003;
 (b) ☐ having an oath or declaration executed on even date herewith prior to filing of application;
 (c) ☐ having an oath or declaration executed on a different date than this Assignment; and

WHEREAS, Renesas Technology America, Inc.,
 a corporation duly organized under and pursuant to the laws of Delaware,
 and having its principal place of business at 179 East Tasman Drive, San Jose, CA 95134

(hereinafter referred to as "the Assignee"), is desirous of acquiring the entire right, title, and interest in and to said inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications, including provisional applications for Letters Patent of the United States or other countries claiming priority to said application, and in and to any Letters Patent or Patents, United States or foreign, to be obtained therefor and thereon.

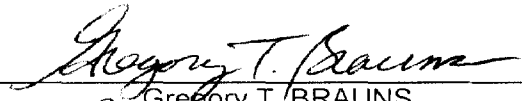
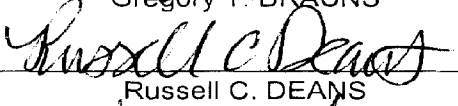

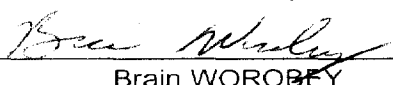
NOW, THEREFORE, in consideration of One Dollar (\$1.00) and other good and sufficient consideration, the receipt of which is hereby acknowledged, the Assignors have sold, assigned, transferred, and set over, and by these presents do sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns the entire right, title, and interest in and to the above-mentioned inventions, the right to file applications on said inventions and the entire right, title and interest in and to any applications for Letters Patent of the United States or other countries claiming priority to said applications, and any and all Letters Patent or Patents of the United States of America and all foreign countries that may be granted therefor and thereon, and in and to any and all applications claiming priority to said applications, divisions, continuations, and continuations-in-part of said applications, and reissues and extensions of said Letters Patent or Patents, and all rights under the International Convention for the Protection of Industrial Property, the same to be held and enjoyed by the Assignee, for its own use and behoof and the use and behoof of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent or Patents may be granted as fully and entirely as the same would have been held and enjoyed by the Assignors had this sale and assignment not been made;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, the Assignors are the sole and lawful owners of the entire right, title, and interest in and to the inventions set forth in said applications and said applications, including provisional applications, above-mentioned, and that the same are unencumbered, and that the Assignors have good and full right and lawful authority to sell and convey the same in the manner herein set forth;

AND for the same consideration, the Assignors hereby covenant and agree to and with the Assignee, its successors, legal representatives, and assigns that the Assignors will, whenever counsel of the Assignee, or the counsel of its successors, legal representatives, and assigns, shall advise that any proceeding in connection with said inventions or said applications for Letters Patent or Patents, or any proceeding in connection with Letters Patent or Patents for said inventions in any country, including interference proceedings, is lawful and desirable, or that any application claiming priority to said application, division, continuation, or continuation-in-part of any applications for Letters Patent or Patents, or any reissue or extension of any Letters Patent or Patents to be obtained thereon, is lawful and desirable, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of Letters Patent or Patents for said inventions, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns;

AND the Assignors hereby authorize and request the attorneys of Burns, Doane, Swecker & Mathis, L.L.P. of Alexandria, Virginia to insert in the spaces provided above the filing date, application number, and attorney docket number of said application when known.

AND the Assignors hereby request the Director of the United States Patent and Trademark Office to issue any and all said Letters Patent of the United States to the Assignee as the Assignee of said inventions, the Letters Patent to be issued for the sole use and behoof of the Assignee, its successors, legal representatives, and assigns.

Date: <u>7/9/03</u>	Signature of Assignor	<u></u> Gregory T. BRAUNS
Date: <u>7/9/03</u>	Signature of Assignor	<u></u> Russell C. DEANS
Date: <u>7/9/03</u>	Signature of Assignor	<u></u> D. Lee NEWMAN, Jr.
Date: <u>7/9/03</u>	Signature of Assignor	<u></u> Brain WOROHEY
Date: _____	Signature of Assignor	_____
Date: _____	Signature of Assignor	_____
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