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FORM PTO-1595
(Rev. 6-93)
OMB No. 0651-0011 (exp. 4/94)
Docket No. TRAM.020PA



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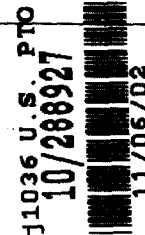
1. Name of conveying party(ies):

Andrew HORCH
Scott ROBINS

11-6-02

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

T-RAM, Inc.
100 Headquarters Drive
San Jose, CA 95134-1370



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

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

3. Nature of conveyance:

- Assignment
- Security Agreement
- Other:
- Merger
- Change of Name

Execution Dates: November 1, 2002; November 1, 2002.

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

If this document is being filed together with a new application, the filing date of the application is: November 6, 2002.

A. Patent Application No.(s)

B. Patent No.(s)

10,288927

Additional numbers attached? Yes No

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

Name: Robert J. Crawford
Address: CRAWFORD PLLC
1270 Northland Drive
Suite 390
St. Paul, MN 55120

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): \$40

Authorization is given to charge our Deposit Account Number: 50-0996 (TRAM.020PA) in the amount of \$40.00.

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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.

Robert J. Crawford

Nov 6, 2002

Name of Person Signing

Signature

Date

Total number of pages (double-sided) including cover sheet, attachments, and document: 4

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11/13/2002 TBIAZI 00000222 500996 10288927
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PATENT
REEL: 013473 FRAME: 0191

ASSIGNMENT

WHEREAS, I/we, Andrew Horch, residing at 1180 Reed Ave., Apt. 42, Sunnyvale, CA 94086; and Scott Robins, residing at 6678 Charter Oak Pl., San Jose, CA 95120 made certain new and useful inventions and improvements for which I/we herewith file an application for letters Patent of the United States, which is entitled **THYRISTOR-BASED DEVICE HAVING A REDUCED-RESISTANCE CONTACT TO A BURIED EMITTER REGION**. Attorney Docket No. TRAM.020PA.

AND WHEREAS, T-RAM, Inc., a corporation organized and existing under and by virtue of the laws of the State of California, and now having an office and place of business at 2125 Zanker Road, San Jose, California 95131 (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, I/we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and I/ we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration aforesaid, I/we do hereby agree that I/we and my/our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to me/us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions,

applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore I/we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me/us and that full right to convey the same as herein expressed is possessed by me/us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 1 day of Nov., 2002.

Andrew Horch
Andrew Horch

STATE OF CALIFORNIA)
COUNTY OF SANTA CLARA) ss.

On this 1ST day of NOVEMBER, 2002, before me personally appeared Andrew Horch, known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.
KNOWN TO ME ON THE BASIS OF SATISFACTORY EVIDENCE ONLY.

[SEAL]

William F. Bronner
Notary Public WILLIAM F. BRONNER
COMM EXP NOV 1, 2002

