
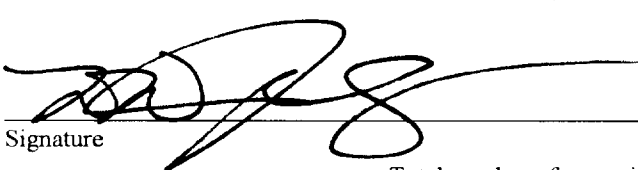


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| FORM PTO-1595 1-31-92 | | 08-16-1999  101116971 | | U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office | | | | | | | |
| To the Honorable Commissioner of Patents | | | | | | | | | | | |
| 1. Name and Address of Conveying Party(ies): Thad J. Genrich 18805 East Napa Drive Aurora, Colorado 80013 Individual/Citizenship: <u>United States of America</u> Additional name(s) of conveying party(ies) attached? <u>Yes</u> <input checked="" type="checkbox"/> <u>No</u> <input type="checkbox"/> 8-5-99 | | | 2. Name and Address of Receiving Party(ies): Name: Raytheon Company Internal Address: Street Address: 141 Spring Street City: Lexington State: MA Zip: 02173 a Delaware Corporation Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | | | | | |
| 3. Nature of conveyance: <table border="0" style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> Assignment</td> <td><input type="checkbox"/> Merger</td> </tr> <tr> <td><input type="checkbox"/> Security Agreement</td> <td><input type="checkbox"/> Change of Name</td> </tr> <tr> <td><input type="checkbox"/> Other</td> <td></td> </tr> </table> | | | <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger | <input type="checkbox"/> Security Agreement | <input type="checkbox"/> Change of Name | <input type="checkbox"/> Other | | | | |
| <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger | | | | | | | | | | |
| <input type="checkbox"/> Security Agreement | <input type="checkbox"/> Change of Name | | | | | | | | | | |
| <input type="checkbox"/> Other | | | | | | | | | | | |
| Execution Date: July 30, 1999 | | | | | | | | | | | |
| 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: July 30, 1999 | | | | | | | | | | | |
| A. Patent Application No.(s) | | | B. Patent No.(s) 09/369484 | | | | | | | | |
| | | | Additional Numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | | | | | | | |
| 5. Name and address of party to whom correspondence concerning document should be mailed: Name: Wei Wei Jeang, Esq. Internal Address: BAKER & BOTTS, L.L.P. Street Address: 2001 Ross Avenue City: Dallas State: Texas Zip: 75201-2980 | | | 6. Total number of applications and patents involved: One 7. Total Fee (37 CFR 3.41): \$40.00 <table border="1" style="width: 100%;"> <tr> <td><input checked="" type="checkbox"/> Enclosed</td> </tr> <tr> <td><input type="checkbox"/> Authorized to be charged to deposit account</td> </tr> </table> 8. Deposit account number: (Attach Duplicate Copy of this page if paying by deposit account) | | | <input checked="" type="checkbox"/> Enclosed | <input type="checkbox"/> Authorized to be charged to deposit account | | | | |
| <input checked="" type="checkbox"/> Enclosed | | | | | | | | | | | |
| <input type="checkbox"/> Authorized to be charged to deposit account | | | | | | | | | | | |
| DO NOT USE THIS SPACE | | | | | | | | | | | |
| 9. Statement and signature. <i>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.</i> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 30%;"> <u>Wei Wei Jeang</u> Name of Person Signing </div> <div style="width: 40%; text-align: center;">  Signature </div> <div style="width: 20%; text-align: right;"> 40E <u>August 5, 1999</u> Date </div> </div> <div style="text-align: right; margin-top: 10px;"> Total number of pages including cover sheet 3 </div> | | | | | | | | | | | |
| OMB No. 0651-0011 (exp.4/94) | | | | | | | | | | | |
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| Mail documents to be recorded with required cover sheet information: | | | | | | | | | | | |
| 08/16/1999 NTHAI1 00000021 09369484 01 FC:581 | | 40.00 OP | | Commissioner of Patent and Trademarks Box Assignments Washington, D.C. 20231 | | | | | | | |
| Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded, including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project, (0651-0011), Washington, D.C. 20503 | | | | | | | | | | | |

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, said application having been executed on the date set forth below; and

WHEREAS, Raytheon Company (hereinafter referred to as "Assignee"), a Delaware Corporation, with an address of 141 Spring Street, Lexington, Massachusetts 02173, desires to acquire my entire right, title and interest in and to the invention, and in and to said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for and in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I assign to Assignee, all right, title and interest in and to said invention and in and to said application and all patents which may be granted therefor, and all divisions, reissues, continuations, continuations-in-part and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as our interest is concerned, to Assignee.

I also assign to Assignee, all right, title and interest to the invention disclosed in said application throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such right, title and interest in Assignee.

I will communicate to Assignee any facts known to me respecting any improvements; and, at the expense of Assignee, I will testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make lawful oaths and declarations, and generally do everything possible to vest title in Assignee and to aid Assignee to obtain and enforce proper protection for said invention in all countries.

This Assignment shall be binding on the parties' successors, assigns and legal representatives.

Title of Invention:

APPARATUS AND METHOD FOR PHASE
AND FREQUENCY DIGITAL MODULATION

Signature of Inventor:
Inventor's Name:

Thad J. Genrich

Thad J. Genrich

Residence
(City, County, State)

Aurora, Arapahoe, Colorado

Date:

July 30, 1999

Date Application Executed:

July 30, 1999