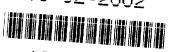
10-02-2002



PATENTS ONLY    Tab settings   □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	Form <b>PTO-1595</b>	102239	U.S. DEPARTMENT OF COMMERCI
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1. Name of conveying party(ies): 1. Zhongming Shi 2. Ahmadreza Rofougaran 3. Anya Reza Behzad  Additional name(s) of conveying party(s) altached? Yes No 3. Nature of conveyance:  Assignment  Change of Name  Street Address:  Shi (9/18/02): Rofougaran (9/20/02); Execution Date: Behzad (9/18/02)  Additional name(s) & address(s) altached? 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)  Shi (9/18/02): Rofougaran (9/20/02); Execution Date: Behzad (9/18/02)  Additional name(s) & address(s) altached? 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)  Shi (9/18/02): Rofougaran (9/20/02);  Behzad (9/18/02)  Additional numbers altached? Yes No  Additional name(s) & address(s) altached? Yes No  Additional numbers of party to No  Additional numbers of party to No  Additional numbers of party to No  Additional numbers of Party No  Addit		<b>Y Y</b>	<b>T T Y Y</b>
1. Zhongming Shi 2. Ahmadreza Rofougaran 3. Avya Reza Behzad  Additional name(s) of conveying party(es) attached?  Yes No 3. Nature of conveyance:  Security Agreement	To the Honorable Commissione	r of Patents and Trademarks	s: Please record the attached original documents or copy thereof.
2. Ahmadreza Rofougaran 3. Arya Reza Behzad Additional name(s) of conveying partyles) attached? \( \text{Yes No} \) 3. Nature of conveyance: \( \text{No} \) 4. Assignment \( \text{Q} \) Morger \( \text{Q} \) Security Agreement \( \text{Q} \) Change of Name \( \text{Q} \) Other. \( \text{Shi (9/18/02); Rofougaran (9/20/02);} \) Execution Date: \( \text{Behzad (9/18/02)} \) 4. Application number(s) or patent number(s): \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{No} \) 4. Application number(s) or patent number(s): \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{No} \)  4. Patent Application No.(s) \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \( \text{Q} \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( \text{Additional name(s) & address(es) attached? } \) Yes \( \text{Q} \) No \( Ad	Name of conveying party(ies):	9 N/ 20	Name and address of receiving party(ies)
Additional name(s) of conveying partyles) attached? ☐ Yes No  3. Nature of conveyance: ☐ Assignment ☐ Merger ☐ Other		196-05	Name: Broadcom Corporation
Additional name(s) of conveying partyles) attached? Yes No  3. Nature of conveyance:  Assignment			Internal Address:
3. Nature of conveyance:  Assignment  Change of Name  Change of Name  City: Irvine  State: CA Zip: 92618  Additional name(s) & address(es) attached?  Yes Anolditional name(s) & addressers attached	,		
Street Address: 16215 Alton Parkway    Security Agreement   Change of Name		) attached? 🖵 Yes 🔊 No	
Street Address: 16215 Alton Parkway    Security Agreement	3. Nature of conveyance:	1	
City: Irvine State: CA Zip: 92618  Shi (9/18/02); Rofougaran (9/20/02); Execution Date: Behzad (9/18/02)  Additional name(s) & address(es) attached?  ves No	🔯 Assignment	☐ Merger	16215 Alton Parkway
Shi (9/18/02); Rofougaran (9/20/02); Execution Date: Behzad (9/18/02)  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)  Shi (9/18/02); Rofougaran (9/20/02); If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s)  B. Patent No.(s)  Shi (9/18/02); Rofougaran (9/20/02); Authorized to be charged to deposit account (Altach duplicate copy of this page if paying by deposit account);  Street Address:  City: Invine	☐ Security Agreement	☐ Change of Name	Street Address: 10215 Alton Parkway
Shi (9/18/02); Rofougaran (9/20/02); Execution Date: Behzad (9/18/02)  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)  5. Name and address of party to whom correspondence concerning document should be mailed: Name: James A. Harrison Internal Address: F.O. Box 670007  Street Address: P.O. Box 670007  DO NOT USE THIS SPACE  9. Statement and signature.  To the best of my knowledge and belief, the foregoing information is that the execution date of the application is: Additional numbers attached?  P. Yes  No	□ Other	_	
Execution Date: Behzad (9/18/02)  4. Application number(s) or patent number(s):  If this document is being filled together with a new application, the execution date of the application is:  A. Patent Application No.(s)  B. Patent No.(s)  Additional numbers attached? Yes No  Additional numbers attached? Yes	- Guioi		au Inina
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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)  Additional numbers attached?  Additional numbers attached?  Additional number of applications and patents involved:  Concerning document should be mailed:  Name:  James A. Harrison  Internal Address:  Alternal Address:  Authorized to be charged to deposit account  Total fee (37 CFR 3.41)	Execution Date: Benzad (9/18/02)		Additional name(s) & address(es) attached?
Concerning document should be mailed:  Name: James A. Harrison  Internal Address: Enclosed  Authorized to be charged to deposit account  8. Deposit account number:  City: Dallas State: TX Zip: 75367  City: Dallas State: TX Zip: 75367  DO NOT USE THIS SPACE  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.  James A. Harrison  7. Total fee (37 CFR 3.41)\$  Authorized to be charged to deposit account  8. Deposit account number:  (Attach duplicate copy of this page if paying by deposit account)  DO NOT USE THIS SPACE  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.  James A. Harrison	5. Name and address of party to v		
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Authorized to be charged to deposit account    Authorized to be charged to deposit account			10.00
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Street Address: P.O. Box 670007  City: Dallas State: TX Zip: 75367  Control of 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.  James A. Harrison  8. Deposit account number:  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)	Name:James A. Internal Address:	Harrison	Enclosed
City: Dallas State: TX Zip: 75367  DO NOT USE THIS SPACE  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.  James A. Harrison  (Attach duplicate copy of this page if paying by deposit account)  (Attach duplicate copy of this page if paying by deposit account)	Name: James A.  Internal Address:  005 HLE333	Harrison	Enclosed
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Commissioner of Patents & Trademarks, Box Assignments

Washington, D.C. 20231

## ASSIGNMENT

WHEREAS, the undersigned inventors, hereinafter called the "Assignors", have invented a new and useful invention entitled:

## LOCAL OSCILLATOR FREQUENCY CORRECTION IN A DIRECT CONVERSION RF TRANSCEIVER

for which reference a full description is here made in an application for Letters Patent of the United States filed herewith.

WHEREAS, Broadcom Corporation , a USA company having a principal office and place of business at, 16215 Alton Parkway Irvine California 92618-7013 hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said invention, the application above identified, and in, to and under Letters Patent which may be obtained for said invention, as hereinafter more fully set forth;

NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN, be it known that for valuable legally sufficient consideration, the receipt of which by the Assignors from the Assignee is hereby acknowledged, the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire right, title and interest in and to the invention and the application herein above identified, and all Letters Patents that may issue for the said invention, and all division, reissues, substitutions, continuations, and extensions thereof, to have and to hold for the sole and exclusive use and benefit of the Assignee, its successors and assigns to the full end of the term for which any and all of said Letters Patents for the said invention may issue.

**FURTHER**, be it known that the Assignors have sold, assigned and transferred, and by these presents do sell, assign and transfer unto the Assignee, its successors and assigns, the entire foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention, and further agrees to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.

And the Assignors do hereby covenant and agree, for themselves and their legal representatives, that they will assist the Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the invention herein identified, as herein before set forth, including any application for reissue, application for reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the invention, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Letters Patents herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional

PATENT REEL: 013334 FRAME: 0901 papers and make all lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and further that they will communicate to Assignee, or to its successors, assigns, and legal representatives, and facts known respecting said invention, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

**IN TESTIMONY WHEREOF**, the Assignors have hereunto set their hands on the date indicated below.

RECORDED: 09/26/2002

15 P	3/18/02	
Zhongming Shi	date	date
(A)	9-20-02	
Ahmadreza Rofouga	ran date	date
	9/18/02	
Arya Reza Behz.	ad date	date