

FORM PTO-1595  
1-31-92

DEC 13 2000

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DEPARTMENT OF COMMERCE  
Patent and Trademark Office

PD-200075

To the Honorable Commissioner of Patents and Trademarks. Please record the attached original documents or copy thereof.

1. Name of conveying party(ies):

**DONALD C. D. CHANG, WEIZHENG WANG, YING FERIA,  
MING CHANG, HAROLD ROSEN**

Additional Name(s) of conveying party(ies) attached?

yes ☐

no ☒

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

Name: HUGHES ELECTRONICS CORPORATION

Internal Address: Bldg. 001, M/S A109  
PO Box 956  
200 N. Sepulveda Blvd.  
El Segundo, CA 90245-0956

3. Nature of Conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement

☐ Change of Name

☐ Other

Execution Date: **October 4, 5, 9, 25, 2000**

Street Address: 200 N. Sepulveda Blvd.  
P.O. Box 956  
El Segundo, California 90245

Additional name(s) & address(es) attached? ☐ yes ☒ no

4. Application number(s) or patent number(s): 09/594,375

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)

Additional numbers attached? ☐ yes ☒ no

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

Name: HUGHES ELECTRONICS CORPORATION  
Internal Address: Bldg. 001, M/S A109  
PO Box 956  
200 N. Sepulveda Blvd.  
El Segundo, CA 90245-0956

**PLEASE ASSOCIATE THIS APPLICATION WITH  
CUSTOMER NO. 020991.**

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:

50-0383

(Attached 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.*

VIJAYALAKSHMI D. DURAISWAMY  
Name of Person Signing

Vijayalakshmi D. Duraiswamy  
Signature

December 13, 2000  
Date

Total number of pages comprising cover sheet: [ ]

OMB No. 0651-0011 (exp. 4/94)

PATENT  
REEL: 011372 FRAME: 0510

**ASSIGNMENT**Page 1 of 2  
PD-200075

WHEREAS, I, as below named sole inventor (if only one name is listed below) or joint inventor (if plural names are listed below) of the city and state as stated below next to my name, have invented a(an) **COMMUNICATION SYSTEM HAVING FREQUENCY REUSE IN NON-BLOCKING MANNER** or which application for Letters Patent of the United States has been executed by me on this day, or (if the following is completed) filed on June 15, 2000, as Serial No. 09/594,375; and

WHEREAS, **HUGHES ELECTRONICS CORPORATION**, (hereinafter referred to as **HUGHES**), a Delaware Corporation, having its principal place of business in El Segundo, California, is desirous of acquiring the entire and exclusive right, title and interest in, to and under said invention, said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world;

NOW, THEREFORE, in consideration of the obligations voluntarily assumed by me and set forth in an invention agreement between me and my employer, effective the date as stated below next to my name, and other good and valuable consideration, receipt of which is hereby acknowledged, I do hereby sell, assign and transfer to HUGHES, its successors, assigns or other legal representatives, the entire and exclusive right, title and interest in and to said invention invented by me, to said application and any and all applications which are continuations, continuations-in- part, divisions or substitutes of said application and any and all Letters Patent that may be granted therefor in the United States and throughout the world on any of said applications and to any and all reexaminations, reissues, renewals or extensions of said Letters Patent in the United States and throughout the world for the full term or terms for which said Letters patent may be granted in the United States and throughout the world; authorize and request The Commissioner of Patents and Trademarks of the United States and all foreign countries to issue all such Letters Patent to said HUGHES, its successors, assigns or other legal representatives; covenant that no assignment, sale, agreement, transfer or encumbrance has been, or will be, made or entered into which would conflict with this assignment, sale and transfer; and agree to communicate to HUGHES, its successors, assigns or other legal representatives, upon request and at no cost or expense to me, any facts known by me respecting said invention, do all lawful acts, including the execution and delivery of all papers and proper oaths and giving of testimony that is deemed necessary or desirable by HUGHES, its successors, assigns or other legal representatives with regard to said invention for protecting, obtaining, maintaining and enforcing any and all of said Letters Patent in the United States and throughout the world for said invention and for perfecting, affirming, recording and maintaining the title of HUGHES, its successors, assigns or other legal representatives, and generally cooperate to the fullest extent in all matters pertaining to said invention, and any and all of said Letters Patent and the title thereto in HUGHES, its successors, assigns or other legal representatives.

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR <b>DONALD C. D. CHANG</b>	INVENTOR'S SIGNATURE <i>Donald C.D. Chang</i>	DATE <i>10/9/2000</i>
RESIDENCE (CITY AND STATE) <b>2350 Moberly Court, Thousand Oaks, California 91360</b>		INVENTION AGREEMENT DATE <b>September 11, 1978</b>
FULL NAME OF SOLE OR JOINT INVENTOR <b>WEIZHENG WANG</b>	INVENTOR'S SIGNATURE <i>Weizheng Wang</i>	DATE <i>10/25/2000</i>
RESIDENCE (CITY AND STATE) <b>27113 Indian Peak Road</b>		INVENTION AGREEMENT DATE <b>January 29, 1998</b>
FULL NAME OF SOLE OR JOINT INVENTOR <b>YING FERIA</b>	INVENTOR'S SIGNATURE <i>Ying FERIA</i>	DATE <i>10/9/00</i>
RESIDENCE (CITY AND STATE) <b>306 Anderson Street, Manhattan Beach, California</b>		INVENTION AGREEMENT DATE <b>January 9, 1997</b>
FULL NAME OF SOLE OR JOINT INVENTOR <b>MING CHANG</b>	INVENTOR'S SIGNATURE <i>Ming Chang</i>	DATE <i>10/5/2000</i>
RESIDENCE (CITY AND STATE) <b>28815 Indian Valley Road, Rancho Palos Verdes, California</b>		INVENTION AGREEMENT DATE <b>November 3, 1977</b>
FULL NAME OF SOLE OR JOINT INVENTOR <b>HAROLD ROSEN</b>	INVENTOR'S SIGNATURE <i>Harold A. Rosen</i>	DATE <i>10/4/00</i>
RESIDENCE (CITY AND STATE) <b>14629 Hilltop Road, Santa Monica, California</b>		INVENTION AGREEMENT DATE <b>February 1998</b>

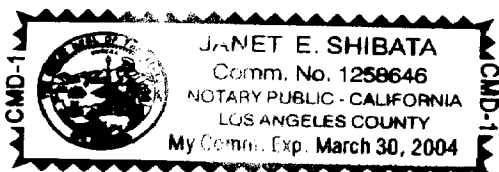
 STATE OF CALIFORNIA )  
 )  
 COUNTY OF LOS ANGELES )

SS:

On OCTOBER 4, 2000 before me, JANET E. SHIBATA,
 a Notary Public in and for said State, personally appeared  
HAROLD ROSEN

☐ personally known to me or ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



*Janet E. Shibata*  
 Notary Public

**ASSIGNMENT  
ADDENDUM TO PAGE 2  
PD-200075-200089**

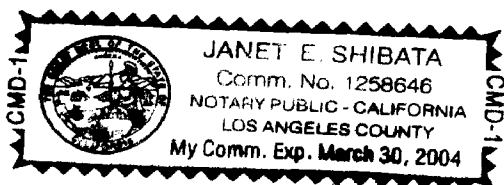
STATE OF CALIFORNIA )COUNTY OF LOS ANGELES )

SS:

On OCTOBER 5, 2000 before me, JANET E. SHIBATA,a Notary Public in and for said State, personally appeared  
MING CHANG,

☐ personally known to me or ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Janet E. Shibata  
Notary Public

STATE OF CALIFORNIA )COUNTY OF LOS ANGELES )

SS:

On OCTOBER 9, 2000 before me, JANET E. SHIBATA,a Notary Public in and for said State, personally appeared  
YING FERIA,

☐ personally known to me or ☒ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Janet E. Shibata  
Notary Public

STATE OF CALIFORNIA )  
COUNTY OF LOS ANGELES ) SS:  
On OCTOBER 9, 2000 before me, JANET E. SHIBATA

a Notary Public in and for said State, personally appeared  
DONALD C.D. CHANG

☒ personally known to me or ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



Janet E. Shibata  
Notary Public

STATE OF California )  
COUNTY OF Los Angeles ) SS:  
On October 25, 2000 before me, Janet E. Shibata

a Notary Public in and for said State, personally appeared  
Weizheng Wang

☒ personally known to me or ☐ proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.



Janet E. Shibata  
Notary Public