

FORM PTO-1595
1-31-92

11-27-2000



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U.S. DEPARTMENT OF COMMERCE
Patent and Trademark Office

EET

PD-200084

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, ALAN G. CHA, YING FERIA

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

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

3. Nature of Conveyance:

☒ Assignment

☐ Merger

☐ Security Agreement

☐ Change of Name

☐ Other

Execution Date: September 7, 8 & 9, 2000

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

4. Application number(s) or patent number(s): 09/652,862

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

A. Patent Application No.(s)

09/652,862

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.

MICHAEL W. SALES
Name of Person Signing


Signature

November 6, 2000
Date

Total number of pages comprising cover sheet: [1]

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

1/14/2000 KZEWDIE 00000001 500383 09652862

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PATENT
REEL: 011263 FRAME: 0643



ASSIGNMENT

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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) **RAPID USER ACQUISITION BY A GROUND-BASED BEAMFORMER** 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 **August 31, 2000**, as Serial No. **09/652,862**; 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 DONALD C. D. CHANG | INVENTOR'S SIGNATURE <i>Donald C. D. Chang</i> | DATE <i>8/8/2022</i> |
| RESIDENCE (CITY AND STATE) 2350 Moberly Court, Thousand Oaks, California 91360 | | INVENTION AGREEMENT DATE September 11, 1978 |
| FULL NAME OF SOLE OR JOINT INVENTOR ALAN CHA | INVENTOR'S SIGNATURE <i>Alan Cha</i> | DATE <i>9/7/2000</i> |
| RESIDENCE (CITY AND STATE) 2214 Lenore Drive, Glendale, California 91206 | | INVENTION AGREEMENT DATE June 27, 1994 |
| FULL NAME OF SOLE OR JOINT INVENTOR YING FERIA | INVENTOR'S SIGNATURE <i>Ying FERIA</i> | DATE <i>10/9/00</i> |
| RESIDENCE (CITY AND STATE) 306 Anderson Street, Manhattan Beach, California | | INVENTION AGREEMENT DATE January 9, 1997 |
| FULL NAME OF SOLE OR JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| RESIDENCE (CITY AND STATE) | INVENTION AGREEMENT DATE | |
| FULL NAME OF SOLE OR JOINT INVENTOR | INVENTOR'S SIGNATURE | DATE |
| RESIDENCE (CITY AND STATE) | INVENTION AGREEMENT DATE | |

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)

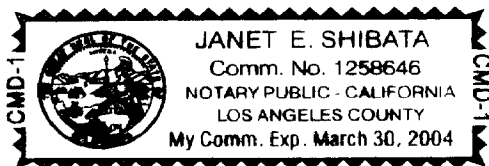
SS:

On September 7, 2000 before me, JANET E. SHIBATA

a Notary Public in and for said State, personally appeared
ALAN CHA

o personally known to me or ~~x~~ 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

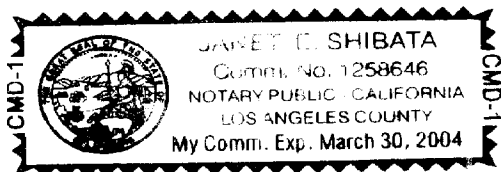
ASSIGNMENT
ADDENDUM TO PAGE 2
PD-200084

STATE OF CALIFORNIA)
)
COUNTY OF LOS ANGELES) SS:

On September 8, 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.

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, PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT SHE EXECUTED THE SAME IN HER AUTHORIZED CAPACITY, AND THAT BY HER SIGNATURE ON THE INSTRUMENT THE PERSON, OR ENTITY UPON BEHALF OF WHICH THE PERSON ACTED, EXECUTED THE INSTRUMENT.

WITNESS MY HAND AND OFFICIAL SEAL.



Janet E. Shibata
NOTARY PUBLIC