

Form PTO-1595 (Rev. 06/04)
OMB No. 0651-0027 (exp. 5/30/2005)

U.S. DEPARTMENT OF COMMERCE
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PD-200250

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

1. Name of conveying party(ies)/Execution Date(s):

Ernest C. Chen

Execution Date(s) June 17, 2004Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No**3. Nature of conveyance:**

- ☒ Assignment ☐ Merger
☐ Security Agreement ☐ Change of Name
☐ Government Interest Assignment
☐ Executive Order 9424, Confirmatory License
☐ Other _____

2. Name and address of receiving party(ies)Name: The DIRECTV Group, Inc.Internal Address: RE / R11 / A109P.O. Box 956Street Address: 2250 E. Imperial HighwayP.O. Box 956City: El SegundoState: CaliforniaCountry: USAZip: 90245-0956Additional name(s) & address(es) attached? ☐ Yes ☒ No**4. Application or patent number(s):**☐ This document is being filed together with a new application.

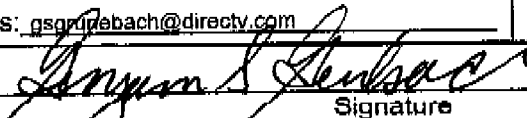
A. Patent Application No.(s)

Serial No.: 10/692,539Filing Date: October 24, 2003PLEASE ASSOCIATE THIS APPLICATION
WITH CUSTOMER NO. 020991

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No**5. Name and address to whom correspondence concerning document should be mailed:**Name: The DIRECTV Group, Inc.Internal Address: Patent Docket AdministrationRE / R11 / A109Street Address: 2250 E. Imperial HighwayP.O. Box 956City: El SegundoState: California Zip: 90245-0956Phone Number: (310) 964-4615Fax Number: (310) 964-0941Email Address: gsgrunbach@directv.com**6. Total number of applications and patents involved:**1**7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40.00**

- ☐ Authorized to be charged by credit card
☒ Authorized to be charged to deposit account
☐ Enclosed
☐ None required (government interest not affecting title)

8. Payment Informationa. Credit Card Last 4 Numbers _____
Expiration Date _____b. Deposit Account Number 50-0383Authorized User Name Georgann S. Grunbach**9. Signature:**


Signature

July 13, 2004

Date

Georgann S. Grunbach, Registration No. 33,179

Name of Person Signing

Total number of pages including cover
sheet, attachments, and documents:3

Documents to be recorded (including cover sheet) should be faxed to (703) 306-5995, or mailed to:
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PATENT
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ASSIGNMENTPage 1 of 2
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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) ON-LINE PHASE NOISE MEASUREMENT FOR LAYERED MODULATION for 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 October 24, 2003 as Serial No. 10/692,539; and

WHEREAS, **THE DIRECTV GROUP, INC.**, (formerly Hughes Electronics Corporation) (hereinafter referred to as **DIRECTV**), a California 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 DIRECTV, 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 DIRECTV, 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 DIRECTV, 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 DIRECTV, 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 DIRECTV, 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 DIRECTV, its successors, assigns or other legal representatives.

ASSIGNMENT
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IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR Ernest C. Chen	INVENTOR'S SIGNATURE <i>Ernest C. Chen</i>	DATE 6-17-04
RESIDENCE (CITY AND STATE) San Pedro, California		INVENTION AGREEMENT DATE August 22, 1978

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

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

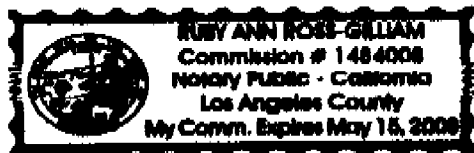
STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)

SS:

On JUNE 17, 2004 before me, Ruby Ann Ross-Gilliam
a Notary Public in and for said State, personally appeared
ERNEST C. CHEN

☒ 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.



Notary Public Ruby Ann Ross-Gilliam