OMB No. 0651-0027 (exp. 6/30/2008)	U.S. DEPARTMENT OF COMMERCE United States Patent and Trademark Office
RECORDATION FO	ORM COVER SHEET
PATEN	<u> </u>
	se record the attached documents or the new address(es) below.
Name of conveying party(les)	2. Name and address of receiving party(les)
MUSTAFA EROZ LIN-NAN LEE	Name: The DIRECTV Group, Inc.
FENG-WEN SUN	Internal Address; P. O. Box 956
Additional name(s) of conveying party(ies) attached? Yes 🗸 No	— _ — —
3. Nature of conveyance/Execution Date(s):	Street Address: 2230 E. Imperial Highway
Execution Date(s) June 21, 2006 and June 22, 2006	
✓ Assignment	
Security Agreement Change of Name	City: El Segundo
Joint Research Agreement	State: California
Government Interest Assignment	Country: US Zip; 90245
Executive Order 9424, Confirmatory License	Zip. 90245
Other	Additional name(s) & address(es) attached? ☐ Yes ✓ No
4. Application or patent number(s):	document is being filed together with a new application.
A. Patent Application No.(s) 11/222,084	B. Patent No.(s)
Additional numbers at	tached? Yes No
5. Name and address to whom correspondence concerning document should be mailed:	6. Total number of applications and patents Involved: One (1)
Name: The DIRECTV Group, Inc.	· · · · · · · · · · · · · · · · · · ·
Internal Address: RE/R8/A108, P. O. Box 956	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
Street Address: 2230 E. Imperial Highway	Enclosed
Oli Oot / Kodi OSS. <u>2200 C. Imperial Prigrayay</u>	None required (government interest not affecting title)
City: El Segundo	8. Payment Information
State: California Zip: 90245	a. Credit Card Last 4 Numbers
·	Expiration Date
Phone Number: 310-964-4615 Fax Number: 310 964-9691	b. Deposit Account Number <u>50-0383</u>
Email Address: gsgrunebach@dlifectv.com	Authorized User Name Georgann S. Grunebach
9. Signature:	<u> </u>
Signature	
Georgann S. Grunebach, Reg. No. 33,179	Total number of pages including cover
Name of Person Signing	sheet, attachments, and documents:

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

PATENT REEL: 017869 FRAME: 0620



ASSIGNMENT

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WHEREAS, We, MUSTAFA EROZ, LIN-NAN LEE and FENG-WEN SUN, as below named joint inventors of the city and state as stated below next to our names, have invented a(an) CODE DESIGN AND IMPLEMENTATION IMPROVEMENTS FOR LOW DENSITY PARITY CHECK CODES FOR WIRELESS ROUTERS USING 802.11N PROTOCOL 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 September 8, 2005 as Serial No. 11/222,084;

WHEREAS, The DIRECTV Group, Inc. (hereinafter referred to as the "Company"), 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 therefore 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 the Company, 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 therefore 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 Company, 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 the Company, 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 the Company, 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 the Company, 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 the Company, Its successors, assigns or other legal representatives.

> PATENT REEL: 017869 FRAME: 0621

Customer No. 020991

ASSIGNMENT

Page 2 of 2 PD-204043

IN WITNESS WHEREOF, I have executed this Instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
MUSTAFA EROZ RESIDENT (CITY AND STATE)	Murto le Borz	6/21/06
Germantown, Maryland		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
LIN-NAN LEE	Lin-con Lac	6/21/06
RESIDENT (CITY AND STATE) Potomac, Maryland		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
FENG-WEN SUN RESIDENT (CITY AND STATE)		
Germantown, Maryland		· · · · · · · · · · · · · · · · · · ·

PATENT REEL: 017869 FRAME: 0622 ASSIGNMENT

Page 2 of 2 PD-204043

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
MUSTAFA EROZ RESIDENT (CITY AND STATE)		
Germantown, Maryland		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
LIN-NAN LEE RESIDENT (CITY AND STATE)		
Potomac, Maryland		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
FENG-WEN SUN RESIDENT (CITY AND STATE)	3008	6-22-06
Germantown, Maryland		

PATENT REEL: 017869 FRAME: 0623

RECORDED: 06/27/2006