Ť	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office R			PATENT Attorney Docket No. 203051			
>		10271	6778				
ۍ د	TO: The Commissioner of Patents and Trademan 1. Submission Type	rks: Please reco	rd the attached original decreased 2. Nature of Conve				
-	New						
-	Resubmission (Non-Recordation)		License	☐ Change of Name ┆ O			
	Document # Correction of PTO Error Reel Frame		☐ Merger	☐ Other:			
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	3. Conveying Party(ies): Mark if additional names of conveying parties attached.						
	Name Feng-Wen Sun		Execution Date:	3/31/2004 (m/d/yyyy)			
	Name Lin-Nan Lee		Execution Date:	3/31/2004 (m/d/yyyy)			
	Name		Execution Date:	(m/d/yyyy)			
	Name		Execution Date:	(m/d/yyyy)			
	4. Receiving Party:		· •	lame and Address:			
	Name: The DIRECTV Group, Inc.			RECTV Group, Inc.			
	Address: 2250 East Imperial Highway		Address: RE/R1				
	El Segundo, CA 90245			ox 956			
	10816382		El Segundo, CA 90245-0956 Please associate this document and the attached documents				
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	r dioner application realities (c)		Tatent Number(5)				
	If this document is being filed together with a <u>new</u> Patent Application, enter the date that the patent 3/31/2004 (m/d/yyyy) application was executed by the first named inventor.						
	7. Patent Cooperation Treaty (PCT) Number	ers:					
	Enter PCT application number(s)	PCT	PCT	PCT			
	only if a U.S. Application Number has not been assigned.	PCT	PCT	PCT			
8. Number of Properties: Enter the total number of properties involved: 1.							
	9. Fee Transmittal: Fee amount for listed properties (37 CFR 3.41): \$40.00						
	Method of Payment:						
	Authorization to charge additional fees: ☐ Yes ☐ No						
	10. 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. Charges to deposit account are authorized as indicated herein.						
	Craig L. Plastrik, Reg. No. 41,254		4/1/04				
	Name of Person Signing	Si	gnature	Date			
04/07	2004 LMUELLER 00000098 500383 10816385		Total number	er of pages comprising cover sheet: 1			

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ASSIGNMENT

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Attorney Docket No: PD-203051

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 <u>Framing Structure for Digital</u> <u>Broadcasting and Interactive Services</u>:

\boxtimes	for which application for Letters Patent of the United States has been executed by me on this day; or
	which is embodied in U.S. Patent Application Serial No filed on

WHEREAS, **THE DIRECTV GROUP, INC.**, 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 THE DIRECTV GROUP, INC., 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 THE DIRECTV GROUP, INC., 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 DIRECTV GROUP, INC., 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 DIRECTV GROUP, INC., 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 DIRECTV GROUP, INC., 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 DIRECTV GROUP, INC., its successors, assigns or other legal representatives.

> PATENT REEL: 015181 FRAME: 0185

ASSIGNMENT Page 2 of 2 Attorney Docket No: PD-203051

IN WITNESS WHEREOF, I have executed this instrument:

RECORDED: 04/01/2004

Full Name of Sole or Joint Inventor:	Inventor's Signature:		Date:					
Feng-Wen Sun	3000		3-31-04					
Residence (City and State)		INVENTI	ON AGREEMENT DATE					
Germantown, Maryland								
Full Name of Joint Inventor:	Inventor's Signature:		Date:					
Lin-Nan Lee	Lina he Lec		3/31/2004					
Residence (City and State)		INVENTI	ON AGREEMENT DATE					
Potomac, Maryland								
Full Name of Joint Inventor:	Inventor's Signature:		Date:					
Residence (City and State)		INVENTION AGREEMENT DATE						
Full Name of Joint Inventor:	Inventor's Signature:		Date:					
Residence (City and State)		INVENTI	ON AGREEMENT DATE					
STATE OF SS: COUNTY OF Solution and for said State, personally appeared Spersonally 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(iee), 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 VIRGINIA L. FOGLE Notary Public Frederick County Maryland My Commission Express Feb 28, 2005								
STATE OF	asis of satisfactory evidence to be the person(s) hey executed the same in his/her/their authoriz	ed capacit cuted the i	ty(ies), and that by his/her/their-instrument.					

PATENT

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