

PATENT ASSIGNMENT

Electronic Version v1.1
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Robert G. Arsenault</td> <td>03/13/2000</td> </tr> <tr> <td>Tam T. Lminh</td> <td>03/16/2000</td> </tr> <tr> <td>Craig A. Finseth</td> <td>03/10/2000</td> </tr> <tr> <td>Jeffrey A. Brown</td> <td>07/19/2000</td> </tr> <tr> <td>Philip E. Hsiao</td> <td>07/19/2000</td> </tr> </tbody> </table>		Name	Execution Date	Robert G. Arsenault	03/13/2000	Tam T. Lminh	03/16/2000	Craig A. Finseth	03/10/2000	Jeffrey A. Brown	07/19/2000	Philip E. Hsiao	07/19/2000
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RECEIVING PARTY DATA													
<table border="1"> <tr> <td>Name:</td> <td>The DIRECTV Group, Inc.</td> </tr> <tr> <td>Street Address:</td> <td>2230 E. Imperial Highway</td> </tr> <tr> <td>Internal Address:</td> <td>CA / LA1 / A109</td> </tr> <tr> <td>City:</td> <td>El Segundo</td> </tr> <tr> <td>State/Country:</td> <td>CALIFORNIA</td> </tr> <tr> <td>Postal Code:</td> <td>90245</td> </tr> </table>		Name:	The DIRECTV Group, Inc.	Street Address:	2230 E. Imperial Highway	Internal Address:	CA / LA1 / A109	City:	El Segundo	State/Country:	CALIFORNIA	Postal Code:	90245
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PROPERTY NUMBERS Total: 1													
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CORRESPONDENCE DATA													
<p>Fax Number: (310)964-0941</p> <p>Phone: 310-964-0735</p> <p>Email: karen.lum@directv.com</p> <p><i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent via US Mail.</i></p> <p>Correspondent Name: The DIRECTV Group, Inc.</p> <p>Address Line 1: 2230 E. Imperial Highway</p> <p>Address Line 2: CA / LA1 / A109</p> <p>Address Line 4: El Segundo, CALIFORNIA 90245</p>													
ATTORNEY DOCKET NUMBER:	PD-980130A												

CH \$40.00 12643736

NAME OF SUBMITTER:

Karen L. Lum

Total Attachments: 7

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ASSIGNMENTPage 1 of 2
PD-980130

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) METHOD AND APPARATUS FOR CONDITIONALLY PROCESSING, STORING, AND DISPLAYING DIGITAL CHANNEL CONTENT IN A TELEVISION RECEPTION SYSTEM 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 March 24, 2000 as Serial No. 09/534,708; and

[Signature] *

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.

PATENT**REEL: 027986 FRAME: 0660**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR Robert G. Arsenault	INVENTOR'S SIGNATURE <i>Robert G. Arsenault</i>	DATE 3/13/2000
RESIDENCE (CITY AND STATE) Redondo Beach, California		INVENTION AGREEMENT DATE June 11, 1984

FULL NAME OF SOLE OR JOINT INVENTOR Tam T. Leminh	INVENTOR'S SIGNATURE <i>Tam T. Leminh</i>	DATE 3/16/2000
RESIDENCE (CITY AND STATE) Cypress, California		INVENTION AGREEMENT DATE June 19, 1989

FULL NAME OF SOLE OR JOINT INVENTOR Craig A. Finseth	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) St. Paul, Minnesota		INVENTION AGREEMENT DATE

FULL NAME OF SOLE OR JOINT INVENTOR Jeffrey A. Brown	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) Roseville, Minnesota		INVENTION AGREEMENT DATE

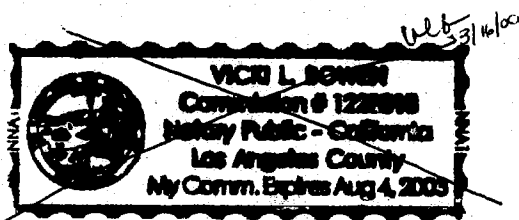
FULL NAME OF SOLE OR JOINT INVENTOR Philip E. Hsiao	INVENTOR'S SIGNATURE	DATE
RESIDENCE (CITY AND STATE) Eden Prairie, Minnesota		INVENTION AGREEMENT DATE

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) SS:

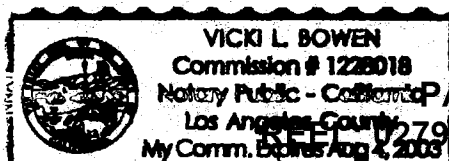
On MARCH 16, 2000 before me, VICKI L. BOWEN,
a Notary Public in and for said State, personally appeared
TAM T. LEMINH

☐ 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 Vicki L. Bowen



PATENT
66 FRAME: 0661

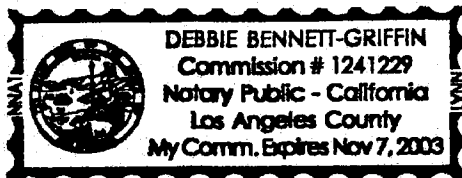
CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Los Angeles } ss.

On March 13, 00, before me, Debbie Bennett-Griffin,
Date Name and Title of Officer (e.g., "Jane Doe, Notary Public")
personally appeared Robert G. Arsenault,
Name(s) of Signer(s)

- ☒ personally known to me
☐ 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.

Debbie Bennett-Griffin
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment of Patent Application-PD #980130

Document Date: 3-13-00 Number of Pages: _____

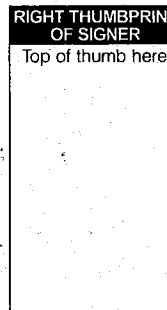
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

- ☒ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____



ASSIGNMENTPage 1 of 2
PD-980130

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) METHOD AND APPARATUS FOR CONDITIONALLY PROCESSING, STORING, AND DISPLAYING DIGITAL CHANNEL CONTENT IN A TELEVISION RECEPTION SYSTEM 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 March 24, 2000 as Serial No. 09/534,708; and

[Signature] **[Signature]* *

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.

PATENT**REEL: 027986 FRAME: 0663**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Robert G. Arsenault		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
Redondo Beach, California		June 11, 1984

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Tam T. Leminh		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
Cypress, California		June 19, 1989

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Craig A. Finseth	<i>Craig A. Finseth</i>	10 Mo. 2000
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
St. Paul, Minnesota		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Jeffrey A. Brown		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
Roseville, Minnesota		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Philip E. Hsiao		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
Eden Prairie, Minnesota		

STATE OF Minnesota)
COUNTY OF Ramsey)

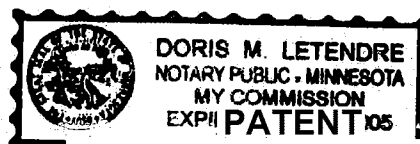
SS:

On March 10, 2000 before me, Doris M. Letendre
a Notary Public in and for said State, personally appeared
Craig Finseth

☒ 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 Doris M. Letendre



REEL: 027986 FRAME: 0664

ASSIGNMENTPage 1 of 2
PD-980130

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) METHOD AND APPARATUS FOR CONDITIONALLY PROCESSING, STORING, AND DISPLAYING DIGITAL CHANNEL CONTENT IN A TELEVISION RECEPTION SYSTEM 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 March 24, 2000 as Serial No. 09/534,708; and

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PATENT**REEL: 027986 FRAME: 0665**

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Robert G. Arsenault		
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
Redondo Beach, California		June 11, 1984

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Roseville, Minnesota		

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE	DATE
Philip E. Hsiao		7/19/2000
RESIDENCE (CITY AND STATE)		INVENTION AGREEMENT DATE
Eden Prairie, Minnesota		

STATE OF INDIANA)
COUNTY OF HAMILTON) SS: NS
On July 19, 2000 before me, Jeffrey A. Brown Rita & Shoufles
a Notary Public in and for said State, personally appeared
Jeffrey A. Brown & Philip E Hsiao

☐ 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 Rita & Shoufles