PU020044

FORM PTO-1595 9-21-95

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

RECORDATION FORM COVER SHEET

To the Honorable Assistant Commissioner for Patents: Please record the attached original documents or copy thereof.					
Name of conveying party(ies):					
PAUL GOTHARD KNUTSON	Name and address of receiving party(ies):				
	Name: THOMSON LICENSING S.A.				
KUMAR RAMASWAMY	Internal Address:				
MAX WARD MUTERSPAUGH	L				
Additional name(s) of Yes No X	Street Address: 46 QUAI A. LE GALLO				
conveying party(ies)	F-92100 BOULOGNE BILLANCOURT, FRANCE				
attached:					
Nature of conveyance:	City: State: Zip:				
Assignment X Merger	·				
Security Agreement Change of Name					
Other					
Execution April 5, 2002, April 5, 2002, and April 8, 2002, respectively	Additional name(s) & address(es) attached? Yes No	X			
Application number(s) or patent number(s):					
If this document is being filed together with a new application, the execution date of	the application is:				
A. Patent Application No.(s): 10/083,865	B. Patent No.(s)				
••					
Additional numbers attached? Yes	No X				
	22				
5. Name and address of party to whom correspondence	6. Total number of applications and patents involved: 1				
concerning document should be mailed:	or rotations of approximations and patoma involved				
Name: JOSEPH S. TRIPOLI					
Internal Address: THOMSON MULTIMEDIA LICENSING, INC.	7. Total Fee (37 CFR 3.41): \$40.00				
	Enclosed 57 CTR 5.41): 340.00				
	Authorized to be charged to deposit account				
Street Address: 2 INDEPENDENCE WAY	8. Deposit account number:				
SHOOT ADDRESS. 2 INDEPENDENCE WAT	07-0832				
City: PRINCETON State: NEW JERSEY Zip :08543-5312	07-0832				
DO NO	T USE THIS SPACE				
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				
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Kuniyuki Akiyama Reg. 43,314	114/21,000				
Name of Person Signing Signature	Date				
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Total number of pages including cover sheet, attachments, and document	1:3				
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Assistant Commissioner for Patents Box Assignments Washington, D.C. 20231

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PATENT REEL: 012719 FRAME: 0578

PU020044

ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

LETTERS PATENT OF	THE UNITED STATES OF AMERICA
I hereby declare that I am the sole inventor (if only one inventor is n if plural inventors are named below) of the inventions relating to:	named below) or one of THREE3joint inventors DEBAND MULTI-CHANNEL LNB CONVERTER/TRANSMITTER ARCHITECTURE
UTILIZING A FREQUENCY	Y STABILIZED COMMON OSCILLATOR
described in an application for Letters Patent of the United States of Americ	a filed on February 26, 2002 under Serial No. 10/083,865 I number, executed by me on even date with my execution of this
Assignment/Agreement.	·
For valuable consideration received, I hereby sell, assign and trans and existing under the laws of France, its successors, and assigns my entire	eright, title and interest.
or all countries in an to said inventions, and all the rights and privileges und and any divisions, continuations, reissues and extensions thereof.	
I agree that, when requested, I will, without charge to said corporated all acts which may be necessary, desirable or convenient for securing a	tion but at its expense, sign all papers, take all rightful oaths, make all rightful declarations and and maintaining patents or other forms of protection for said inventions in any and all countries
and for vesting title thereto in said corporation, its successors, assigns or no I agree that I will communicate to said corporation or its represental	minees.
equested by said corporation and at its expense will testify in any legal proc	eedings, and generally do everything possible to aid said corporation.
ts successors, assigns and legal representatives or nominees, to obtain or of authorize and empower said corporation, its successors, assigns	or nominees, to make application for patent or other form of protection for said inventions in its
or their own name, or in my/our name, in any and all countries and to invoke	e and claim for any application for patent or other form of protection for said inventions filed by it evention for the Protection of Industrial Property, as amended, or by any convention which may
renceforth be substituted for it, and to invoke and claim such right of priority	without further written or oral authorization from me.
be required in any country for any purpose and more particularly in proof o	t fulf legal and formal equivalent of any assignment, consent to file or like document which may if the right of the said corporation or its successors, assigns or nominees to apply for patent or
Property, as amended, or by any convention which may henceforth be subst	its of the right of priority provided by the International Convention for the Protection of Industrial lituted for it.
I covenant with THOMSON LICENSING S.A., its successors, assi nterest herein conveyed by me are free and clear of any encumbrance, and	igns, legal representatives, and nominees, that to the best of my knowledge the right, title and
The second of th	that there tall light to dollvey the dame as notific expressed.
Signed at Princeton, NJ	Date
Investor (4)	
Inventor (1) Paul Gothard Knutson (Type or Print)	(Signature in Full. No initials.)
(Typo or Filling	(Olgradute III Cut. No linitals.)
Post Office Address 5 Huron Way, Lawren	ceville, New Jersey 08648, U.S.A.
1st Witness	
(Type or Print)	(Signature in Fuli. No initials.)
2ndWitness	
(Type or Print)	(Signature in Full. No initials.)
Signed at Princeton, NJ	Date
Filliceton, NJ	
Inventor (2) Kumar Ramaswamy	
(Type or Print)	(Signature in Full. No initials.)
Post Office Address 7701 Tamarron Drive	Plainsboro, New Jersey 08648, U.S.A.
7701 Tamanon Brive,	Tidilisbolo, New Jersey 00046, O.S.A.
1st Witness	(Cianatura in Full. No initials.)
(Type or Print)	(Signature in Full. No initials.)
2ndWitness (Type or Print)	(Signature in Full. No initials.)
(Type of Finity	A J A
Signed at Indianapolis, IN	Date 1 MI 8, 2002
Inventor (3) May Ward Mutershaugh	1 alpost with south
Inventor (3) Max Ward Muterspaugh (Type or Print)	(Signature in Full. No initials.)
Post Office Address 7353 North Layman A	ve., Indianapolis, Indiana 46250, U.S.A.
1st Witness MinSe Lintenment D	suns (1) ex () patriorited) -
(Type or Print)	(Arghature in ton. Maintials.)
2ndWitness RIZAMEN ANN WKSON	Climbeth amacan
(Type or Print)	(Signature in Full. No initials.)

After this Assignment has been recorded please RETURN to:

Patent Operations THOMSON multimedia Licensing, Inc. P.O. Box 5312 Princeton, NJ 08543-5312

Pat Form-rev. 1/2000

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ASSIGNMENT AND AGREEMENT IN AN APPLICATION FOR LETTERS PATENT OF THE UNITED STATES OF AMERICA

	declare that I am the sole inventor (if only one inventor is are named below) of the inventions relating to:	named below) or one	of THREE 3 joint Inventors
SATELLITE '	TELEVISION SYSTEM GROUND STATION HAVING W UTILIZING A FREQUENCY	IDEBAND MULTI-CH	IANNEL LNB CONVERTER/TRANSMITTER ARCHITECTURE
described in an ap	plication for Letters Patent of the United States of Ameri- or, if not identified here by filing date and serie	ca filed on	ebruary 26, 2002 under Serial No. 10/083,865
Assignment/Agree For valua	ement	sfer to THOMSON LIG	CENSING S.A., a corporation duly organized
ınd existing unde <i>t</i>	the laws of France, its successors, and assigns my enti- an to said inventions, and all the rights and privileges un	e right, title and intere	est.
and any divisions, I agree th	continuations, reissues and extensions thereof. lat, when requested, I will, without charge to said corpora	ation but at its expens	se. Sign all papers, take all rightful gaths, make all rightful declarations ar
to all acts which r and for vesting title	may be necessary, desirable or convenient for securing a thereto in said corporation, its successors, assigns or n	and maintaining pate ominees.	nts or other forms of protection for said inventions in any and all countrie
I agree th	at I will communicate to said corporation or its represents corporation and at its expense will testify in any legal pro	atives any facts know	1 to me respecting said inventions and when
is successors, ass	signs and legal representatives or nominees, to obtain or	enforce proper prote	ction for said inventions in any and all countries. Se application for patent or other form of protection for said inventions in i
or their own name. or them, the benef nenceforth be subs	, or in my/our name, in any and all countries and to invol fit of the right of priority provided by the International Co stituted for it, and to invoke and claim such right of priorit	ke and claim for any a nvention for the Prote y without further writte	pplication for patent or other form of protection for said inventions filed by
pe required in any other proper prote	country for any purpose and more particularly in proof	of the right of the said offits of the right of price	d corporation or its successors, assigns or nominees to apply for patient or trity provided by the International Convention for the Protection of Industria
I covenan	nt with THOMSON LICENSING S.A., its successors, ass weyed by me are free and clear of any encumbrance, and	signs, legal represent	atives, and nominees, that to the best of my knowledge the right, title ar to convey the same as herein expressed.
Signed at	Princeton, NJ	Date A	Paril 5, 2002
Inventor (1)	Paul Gothard Knutson	•	
	(Type or Print)		Signature in Full. No initials.)
P	ost Office Address 5 Huron Way, Lawrer	nceville, New Je	ersey 08648, U,\$.A.
1st Witness	Louis Lituin		touh Mu
2ndWitness	Alton Reel	(E (Signatura in Full. No initials.)
	(Type or Print)		ignature in Full. No initips.)
Signed at	Princeton, NJ	Date	5/h April 2002
Inventor (2)	_ Kumar Ramaswamy		kuman lawanning
	(Type or Print)	(5	Signature in Full. No initials.)
P	ost Office Address 7701 Tamarron Drive	, Plainsboro, N	ew Jersey 08648, U.S.A.
1st Witness	toarline Mooring	_ <u> </u>	Signature in Full. No initials.)
	Jens Cahnblen	10	La O
2ndWitness	(Type or Print)		dnature in Full. No ditials.)
Signed at	Indianapolis, IN	Date	
Inventor (3)	Max Ward Muterspaugh		
	(Type or Print)		Signature in Full. No initials.)
P	ost Office Address 7353 North Layman A	Ave., Indianapo	lis, Indiana 46250, U.S.A.
1st Witness	(Type or Print)		Signature in Full. No initials.)
1			

After this Assignment has been recorded please RETURN to:

(Signature in Full. No initials.)

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2ndWitness

PATENT
REEL: 012719 FRAME: 0580 **

(Type or Print)