1-31-92 \$\vee LO-93\$ To the Henor the Commissioner of Patents and Trademark. 100795835 _ythereof. 1. Name of conveying party(ies): 100795835 _ythereof. Construction NUMEZ LEON DE SANTOS, Ison Manuel PAEZ BORRALLO, Participa Construction State Address of receiving party(ies): 1. Name and address of receiving party(ies): Additional name(s) of conveying party(ies) attact?	Form PTO-1 595	8-18-1998	
1. Name of conveying party(ies): 2. Name and address of receiving party(ies)? Origonia NUMEZ LEON DE SANTOS, Joe Manuel PAEZ BORRALLO, Automos FERNANDEZ DURAN Name: Aleast Alathom Compagnie Generale D'Electricite internal Address: Additional name(s) of conveying party(ies) attachd? Name: Aleast Alathom Compagnie Generale D'Electricite internal Address:			
Gregorio NUNEZ LEON DE SANTOS, Jose Manuel PAEZ BORRALLO, Javier CASUS QURIOS, Radei BURRIEL LUNA. Name: Alcatel Althom Compagnie Generale D'Electricite S4 net la Boetie Internal Address: 7308 Paris, France Additional name(s) of conveying party(iss) attached? Immain Address: 7308 Paris, France yes x no Additional name(s) of conveying party(iss) attached? Immain Address: 7308 Paris, France Storet Address: City Security Agreement Change Other Execution Date: A. Application Number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patient Application No.(s) B. Patent No(s). 09/037.753 Additional numbers attached? Yes _XX No 5. Name and address of party to whom correspondence concerning 6. Total number of applications and patents involved: SUGPROE_MON, ZINN, MACPEAK & SEAS, PLLC: 2100 Pennsylvania Acount No. 24000	To the Honor ible Commissioner of Patents and Trademark.	00795835 yy thereof.	
Javier CASUS QUIROS, Rafiel BURREEL LLUNA.	1. Name of conveying party(ies):	2. Name and address of receiving party(ies)?	
3. Nature of Conveyance: X_Assignment	Javier CASJUS QUIROS, Rafael BURRIEL LLUNA, Alfonso FERNANDEZ DURAN Additional name(s) of conveying party(ies) attached? yes _X_no AU5 1 0 1998	54 rue la Boetie Internal Address: 75008 Paris, France Street Address: City State Zip Additional name(s) & address(es) attached?	
Other Execution Date: March 5, 1998 4. Application number(s) or patent number(s): If this documents to be recorded with requirements A. Patent Application No.(s) B. Patent No(s). 09/037,753 Additional numbers attached?Yes _XX No 5. Name and address of party to whom correspondence concerning document should be mailed: SUCHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Suite 800 Total NUMSER OF PAGES COMPRISING CORRESHEET, ATTACHMENTS AND DOCUMENT:2. OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with requirement information to: Commissioner of Patents and Trademarks Commissioner of Patents and Trademarks	X Assignment Merger		
Execution Date: March 5, 1998 4. 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) B. Patent No.(s) O9/037,753 Additional numbers attached?Yes _XX No 5. Name and address of party to whom correspondence concerning document should be mailed: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Swite 800 Washington, D.C. 20037-3202 7. Total Fee (37 CFR 3.41): \$_40.00 XX Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 7. Total Fee (37 CFR 3.41): \$_40.00 XX Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 8. Deposit Account No. 9. Statement and Signature. To the best of fix knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Devid J. Cushing C. Reg. No. 28,703 TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT:_2 OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: Commissioner of Patents and Trademarks	Security Agreement Change of Name		
4. 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:	Other		
If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No(s). 09/037,753 Additional numbers attached? Yes _XX No 5. Name and address of party to whom correspondence concerning document should be mailed: 6. Total number of applications and patents involved: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Suite 800 7. Total Fee (37 CFR 3.41): \$_40.00XX Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 19-4880XX Enclosed. Please charge to Deposit Account 8. Deposit Account No. 9. Statement and Signature. To the best of the knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document	Execution Date: March 5, 1998		
A. Patent Application No.(s) 09/037,753 Additional numbers attached?Yes _XX No 5. Name and address of party to whom correspondence concerning document should be mailed: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Suite 800 Washington, D.C. 20037-3202 7. Total Fee (37 CFR 3.41): \$_40.00XX Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 19-4880Authorized to be charged to Deposit Account 8. Deposit Account No. 9. Statement and Signature. To the best of fix knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. DO NOT WRITE IN THIS SPACE 9. Statement and Signature. To the best of fix knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT:2. OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: // 2000// 20	4. Application number(s) or patent number(s):		
O9/037,753 Additional numbers attached?Yes _XX No 6. Total number of applications and patents involved: 6. Total number of applications and patents involved: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2000 Pennsylvania Avenue, N.W. Suite 800 Washington, D.C. 20037-3202 7. Total Fee (37 CFR 3.41): \$_40.00X Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 19-4880.	If this document is being filed together with a new application, the execution	on date of the application is:	
Additional numbers attached? _ Yes _XX No 5. Name and address of party to whom correspondence concerning document should be mailed: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Suite 800 Washington, D.C. 20037-3202 7. Total Fee (37 CFR 3.41): \$_40.00XX Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 19-4880XEnclosed. Please charged to Deposit Account 8. Deposit Account No. DO NOT WRITE IN THIS SPACE 9. Statement and Signature. To the best of TV knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. August 10. 1998 Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT:2. OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: (1998 WILLARI 00000013 09037733	A. Patent Application No.(s)	B. Patent No(s).	
 5. Name and address of party to whom correspondence concerning document should be mailed: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Suite 800 Washington, D.C. 20037-3202 Total Fee (37 CFR 3.41): <u>5.40.00</u>	09/037,753		
document should be mailed: SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Suite 800 Washington, D.C. 20037-3202 7. Total Fee (37 CFR 3.41): \$_40.00XX Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 19-4880. Authorized to be charged to Deposit Account 8. Deposit Account No. 9. Statement and Signature. To the best of the knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. August 10. 1998 Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT:2_ OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: Commissioner of Patents and Trademarks	Additional numbe	ers attached? Yes _XX No	
2100 Pennsylvania Avenue, N.W. Suite 800 Washington, D.C. 20037-3202 7. Total Fee (37 CFR 3.41): \$ _40.00		6. Total number of applications and patents involved:	
XX_Enclosed. Please charge any underpayment in connection with th Assignment to Deposit Account No. 19-4880.	2100 Pennsylvania Avenue, N.W. Suite 800		
		XX Enclosed. Please charge any underpayment in connection with this	
DO NOT WRITE IN THIS SPACE 9. Statement and Signature. To the best of its knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. August 10. 1998 David J. Cushing Reg. No. 28,703 Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT:_2 OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: 1998 WILLARI 00000013 09037753 Commissioner of Patents and Trademarks		Authorized to be charged to Deposit Account	
9. Statement and Signature. To the best of the knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. August 10, 1998 David J. Cushing C Reg. No. 28,703 Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT: OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: '1998 WILLORI 00000013 09037753 Commissioner of Patents and Trademarks		8. Deposit Account No.	
To the best of the knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. August 10, 1998 Date TOTAL NUMBER OF PAGES COMPRISING COVER SHEET, ATTACHMENTS AND DOCUMENT: OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required over sheet information to: 1998 WILLARI 00000013 09037753 Commissioner of Patents and Trademarks	DO NOT W	RITE IN THIS SPACE	
OMB No. 0651-0011 (exp. 4/94) Do not detach this portion Mail documents to be recorded with required cover sheet information to: /1998 WILLARI 00000013 09037753 Commissioner of Patents and Trademarks	To the best of my knowledge and belief, the foregoing information is true a August 10 David J. Cushing Reg. No. 28,703 Date	0. 1998	
Mail documents to be recorded with required over sheet information to: 1998 WILLARI 00000013 09037753 Commissioner of Patents and Trademarks			
1581 40.00 DP Washington, D.C. 20231	Mail documents to be recorded with required over sheet information to: /1998 WILLARI 00000013 09037753 Commissioner of Bo	of Patents and Trademarks x Assignments	

For Non-U.S. Clients

.

Assignment

Whereas, I/We, NÚÑEZ LEÓN DE SANIOS, Gregorio; PAEZ BORRALLO, José Manual; CASAJÚS QUIROS, Javier; BURRIEL LLUNA, Rafael and FERNÁNDEZ DURÁN, Alfonso.

hereinafter called assignor(s), have invented certain improvements in TRANSMISSION/RECEPTION UNIT WITH BIDIRECTIONAL EQUALIZATION.

and executed an application for Letters Patent of the United States of America therefor on March 5 ¹⁹ 98 and

Whereas, ALCATEL ALSTHOM COMPAGNIE GENERAL D'ELECTRICITE 54 Rue la Boétie, 75008 PARIS, FRANCE

(assignee), desires to acquire the entire right, title, and interest in the application and invention, and to any United States patents to be obtained therefor;

Now therefore, for valuable consideration, receipt whereof is hereby acknowledged,

I/We, the above named assignor(s), hereby sell, assign and transfer to the above named assignee, its successors and assigns, the entire right, title and interest in the application and the invention disclosed therein for the United States of America, including the right to claim priority under 35 U.S.C. §119, and I/we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to the assignee, its successors and assigns; and I/we will execute without further consideration all papers deemed necessary by the assignee in connection with the United States application when called upon to do so by the assignee.

I/We hereby authorize and request my attorneys SUGHRUE, MION, ZINN, MACPEAK & SEAS of 2100 Pennsylvania Avenue, N.W., Washington, D.C. 20037-3202 to insert here in parentheses (Application number _______, filed _______) the filing date and application number of said application when known.

Date: March 5, 1998 s/ <u>N</u> IÑE	Z LEÓN DE SANTOS, Gregorio-	Augus	
Date: March 5, 1998 s/PAEZ	BORRALLO; José Manuel	Junt	
Date: March 5, 1998 s/ <u>CASA</u>	TÚS QUIROS, Javier	E G	
Date: March 5, 1998 s/BURRI	EL LLUNA, Rafael	Nom	
Date: March 5, 1998 s/ <u>FERNÁ</u>	NDEZ DURÁN, Alfonso		
(Legalization not required for recording but is prima facie evidence of execution under 35 U.S.C. §261)			

8/92

PATENT REEL: 9380 FRAME: 0160

RECORDED: 08/10/1998