13.30.95

Customer No. 020991 PD-990127

FORM PTO-1595	04 44 0004		J.S. DEPARTMENT OF COMM	/IERCE	
1-31-92	01-11-2000		Patent and Trademark		
		EET			
To the Honorable Commissioner of Pate.	101241923	 ched ori	iginal documents or copy there	of.	
Name of conveying party(ies): Sudhakar Rao and		Name and address of receiving party(ies):			
Arun Bhattacharyya		Name: HUGHES ELECTRONICS CORPORATION		RATION	
		Internal Address:	Bldg. 001, M/S A109 P.O. Box 956	OT.	
Additional Name(s) of conveying part	y(ies) attached?		200 N. Sepulveda Blvd.	3.5	
yes □ no	×		El Segundo, CA 90245-0956	292 192	
2. Nature of Conveyor	09/467637				
	□ Merger	Street Address:	Bldg. 001, M.S. A109 200 N. Sepulveda Blvd. El Segundo, California 902	25.55 69	
☐ Security Agreement ☐ ☐ Other			Li Gegundo, Camornia 302	.45	
Execution Date: December 13,	1999	Additional name(s) 8	& address(es) attached? □ ye	es ⊠ no	
4. Application number(s) or patent nu	ımber(s):		December 13, 1999	9	
If this document is being filed togethe	er with a new application, the	e execution date of	the application is:		
A. Patent Application No.(s):		B. Patent No.(s):			
Add	ditional numbers attached?	□ yes	0		
Name and address of party to whom correspondence concerning document should be mailed:		6. Total number of applications and patents involved: [1]			
Detect December Administra	tion	7. Total fee (37 (CFR 3.41): (\$40.00)		
Name: Patent Records Administ Address: Hughes Electronics Corp		□ Enclosed			
Bidg. 001, M/S A109 P.O. Box 956		Authorized to be charged to deposit account			
200 N. Sepulveda Blvd.		8. Deposit account number:			
El Segundo, CA 90245-095	i6	50-0383			
0/2000 DCDATES 00000171 500383 094670	637	(Attached duplicate copy of this page if paying by deposit account)			
FC:581 40.00 CH	DO NOT USE THI	S SPACE			
Statement and signature.					
To the best of my knowledge and copy of the original document.	belief, the foregoing information	on is true and correct		e Ia	
GEORGANN S. GRUNEBACH Registration No. 33,179	Signature Signature			·	
	(/	Total number of i	nages including cover sheet: [3 ₁	

OMB No. 0651-0011 (exp. 4/94)

PATENT REEL: 010474 FRAME: 0505

HUGHES

ASSIGNMENT

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Customer No. 020991

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) Multi-Mode Square Horn With Cavity-Suppressed Higher-Order Modes 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 ______ as Serial No. ______; and

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.

13650 CO JAN 98

PATENT REEL: 010474 FRAME: 0506 Customer No. 020991

IN WITNESS WHEREOF, I have executed this instrument.

FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE		DATE	
SUDHAKAR RAO	Kd allerice Vin		12/13/99	
RESIDENCE (CITY AND STATE)		INVENTIO	ON AGREEMENT DATE	
20326 MANSEL AVENUE, TORRANCE, C	CA 90503	AUGUS	T 26, 1996	
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE		DATE	
ARUN BHATTACHARYYA	Arun Bhattachy	_	12/13/99	
RESIDENCE (CITY AND STATE)		INVENTIO	ON AGREEMENT DATE	
719 CENTER STREET, EL SEGUNDO, C	A 90245	JULY 10	0, 1991	
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE		DATE	
DECIDENCE (OLT) AND OTATE)				
RESIDENCE (CITY AND STATE)		INVENTIC	ON AGREEMENT DATE	
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE		DATE	
RESIDENCE (CITY AND STATE)		INVENTIO	ON AGREEMENT DATE	
FULL NAME OF SOLE OR JOINT INVENTOR	INVENTOR'S SIGNATURE		DATE	
RESIDENCE (CITY AND STATE)		INVENTIO	ON AGREEMENT DATE	
STATE OF California)			
COUNTY OF Los Angeles) SS:)			
1000	e me, Donna M. Meehan			
a Notary Public in and for said State, pers	sonally appeared		,	
Sudhakar Rao and Arun Bhattach	naryya		1	
personally known to me or proved to name(s) is lare subscribed to the within same in his/her/their authorized capacit person(s), or the entity upon behalf of which	instrument and acknowledged to me that y(ies), and that by his/het/their signature	at he/shę re(s) on	(they executed the	
DONNA M. M. Commission # Norary Public - C Los Angeles C My Comm. Expires E	EEHAN 1166998 California Notary Public One	na n	N. Meeda	

RECORDED: 12/20/1999

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PATENT REEL: 010474 FRAME: 0507