11-24-1999



CORP. Form PTO-1595 101179485 RECORDATION FORM COVER PATENTS ONLY Commissioner of Patents and Trademarks, Washington, D.C. 20231 Please record the attached document 2. Name and RECORDATION FORM COVER SHEET

1 rease record the att	achea document	
1. Name of conveying party(ies):	2. Name and Address of receiving party(ies):	
Giridhar D. Mandyam	Name: Nokia Mobile Phones Limited	
Additional name(s) of conveying party(ies) attached?	Traine. Trokia Wioone i Hones Emilied	
⊠ No	Address: Keilalahdentie 4	
	02150 Espoo	
	Finland	
3. Nature of Conveyance:	City: Espoo	
Assignment Merger	Country: Finland	
Security Agreement Change of Name Other: Substitute Cover Sheet to correct name	A 44 is in man 1 manus ()	
of conveying party of assignment previously	Additional name(s) & address(es) attached? Yes No	
recorded at Reel 010075/Frame 0546. Originally		
filed Assignment and Cover Sheet and Notice of		
Recordation are attached.		
Execution Date: 06/30/99		
4. Application number(s) or patent number(s):		
If this document is being filed together with a new application,		
A. Patent Application No. (s): 09/343,829	B. Patent No.(s):	
Additional numbers atta	ched? Yes No	
5. Name and address of party to whom	6 Total number of applications	
correspondence concerning document should be	and/or patents involved: One (1)	
mailed:		
Name: Brian T. Rivers, Esq.	7. Total fee (37 CFR 3.41): \$40.00	
Address: Nokia Inc.		
6000 Connection Drive	☐ Enclosed ☐ Charge deposit account	
	Please charge any fee deficiency to deposit account	
City: Irving	account	
CKy. II ving	8. Deposit account number: 50-0270	
State: TX ZIP Code: 75039	o. Doposit account nambor.	
DO NOT USE THIS SPACE		
0. 91-4		
9. Statement And Signature:		
To the best of my knowledge and belief, the foregoin	a information is true and correct, and the attached	
Document is either an original document	or a true copy of the original document	
	or a side copy of the original accument.	
	- 0	
	-1/2 <u>9/22/97</u>	
Name of person signing Signa	ature Date	
	Total number of pages including cover sheet(s): 7	
	Page 1 of 1	

PATENT REEL: 010280 FRAME: 0322



Form PTO-1595

Express Mail Label No. EE525934926US

101087562 RECORDATION FORM COVER SHEET PATENTS ONLY

RECORDATION FORM COVER SHEET				
PATENTS ONLY Commissioner of Patents and Trademarks, Washington, D.C. 20231				
Commissioner of Patents and Trademarks, Washington, D.C. 202	31 0/30/4			
Please record the atta				
Name of conveying party(ies):	2. Name and Address of receiving party(ies):			
Giridhard D. Mandyam				
	Name: Nokia Mobile Phones Limited			
Additional name(s) of conveying party(ies) attached?	o Cyles			
⊠ No	Address: Keilalahdentie 4			
	02150 Espoo			
	Finland			
3. Nature of Conveyance:	City: Espoo			
	Country: Finland			
Security Agreement Change of Name	,			
Other	Additional name(s) & address(es) attached?			
other	Yes No			
Execution Date: June 30, 1999				
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: June 30, 1999			
A. Patent Application No. (s):	B. Patent No.(s):			
Additional numbers atta	ched? ☐ Yes ☒ No			
5. Name and address of party to whom	6 Total number of applications			
correspondence concerning document should be	and/or patents involved: One (1)			
mailed:				
Name: Brian T. Rivers, Esq.	7. Total fee (37 CFR 3.41): \$40.00			
Address: Nokia Inc.	-			
6000 Connection Drive	☐ Enclosed			
	☐ Charge deposit account			
	Please charge any fee deficiency to deposit			
	account			
City: Irving	docodin			
City. If ving	8. Deposit account number: 50-0270			
State: TX ZIP Code: 75039	8. Deposit account number. 30-0270			
	THIC SDACE			
DO NOT USE THIS SPACE				
9. Statement And Signature:				
7. Statement And Signature.				
To the best of my knowledge and belief, the foregoing information is true and correct, and the attached				
document is either an original document or a true copy of the original document.				
Brian T. Rivers 15 1 (7)				
Name of person signing Signature Date				
Traine of person signing Signature Date				
Total number of pages including cover sheet(s): 5				
	Page 1 of 1			
	rage roll r			

07/12/1999 DNGUYEN 00000125 500270 01 FC:581 40.00 CH

REEL: 010280 FRAME: 0323

PATENT

PATENT

	For: U.S. and/or Foreign Rights For: U.S. Application or U.S. Provisional Application For: U.S. Patent For: PCT Application By: Inventor(s) or Present Owner
ASSIGNMENT	OF INVENTION
In consideration of the payment by One Dollar (\$1.00), the receipt of which is and valuable consideration,	ASSIGNEE to ASSIGNOR of the sum of hereby acknowledged, and for other good
ASSIGNOR:	
Inventor or person or	Giridhar D. Mandyam
entity who owns the nvention	[type or print name of ASSIGNOR]
	9010 Markville Drive #1006
	Address
	Dallas, Texas 75243
	American
	Nationality
	ivationality
	whom invention was previously assigned a PTO, add the following)
	whom invention was previously assigned
and this was recorded in	whom invention was previously assigned PTO, add the following)
and this was recorded in	whom invention was previously assigned PTO, add the following) Reel
and this was recorded in Recorded on nereby sells, assigns and transfers to	whom invention was previously assigned PTO, add the following) Reel
and this was recorded in Recorded on nereby sells, assigns and transfers to	whom invention was previously assigned a PTO, add the following) Reel Frame
and this was recorded in	whom invention was previously assigned a PTO, add the following) Reel Frame NOKIA MOBILE PHONES LIMITED
and this was recorded in Recorded on nereby sells, assigns and transfers to	whom invention was previously assigned in PTO, add the following) Reel Frame NOKIA MOBILE PHONES LIMITED [type or print name(s) of ASSIGNEE(S)]
and this was recorded in Recorded on nereby sells, assigns and transfers to	whom invention was previously assigned in PTO, add the following) Reel Frame NOKIA MOBILE PHONES LIMITED [type or print name(s) of ASSIGNEE(S)] KEILALAHDENTIE 4
and this was recorded in Recorded on nereby sells, assigns and transfers to	whom invention was previously assigned in PTO, add the following) Reel Frame NOKIA MOBILE PHONES LIMITED [type or print name(s) of ASSIGNEE(S)] KEILALAHDENTIE 4 Address

[Assignment of Invention (16-3)-page 1 of 3]

	\boxtimes	the entire right, title and interest	
		an undivided percent (%) interest	
for the	United	States and its territorial possessions	
		(check the following box, if foreign rights are also to be assigned)	
	\boxtimes	and in all foreign countries, including all rights to claim priority,	
in and	to any a	and all improvements which are disclosed in the invention entitled:	
		Adaptive Quantization in a Pulse-Amplitude Modulated System	
Name o	f inventor	Giridhar d. Mandyam	
		[check and complete (a), (b), (c), (d), (e), (f) or (g)]	
and w	nich is fe	ound in	
(a)	\boxtimes	U.S. patent application executed on even date herewith	
(b)		U.S. patent application executed on	
(c)`		U.S. provisional application naming the above inventor(s) for the above-	
(-)		entitled invention.	
		Express mail label no.: Mailed:	
		To comply with 37 CFR 3.21 for recordal of this assignment, I, the ASSIGNOR signing below, hereby authorize and request my attorney to insert below the filing date and application number when they become known.	
(d)		U.S. application no filed on	
(e)		International application no. PCT/	
(f)		U.S. patent no issued	
		A change of address to which correspondence is to be sent regarding patent maintenance fees is being sent separately.	
		[also check (g), if application(s) is also being assigned)	
(g)	\boxtimes	and any legal equivalent thereof in a foreign country, including the right to claim priority	

(complete one of the following)

and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof.

ASSIGNOR hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

[Assignment of Invention (16-3)-page 2 of 3]

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

,	•	
WARNING:	The date of signing must be checked above.	the date of execution of this application, if item (a) was
Date:	30/99	- Plant
		Signature of ASSIGNOR Giridhar D. Mandyam
	(if ASSIGNOR is a legal enti	(type or print the name of the should parson
		(type or print the name of the above person authorized to sign on behalf of ASSIGNOR)
		Title

NOTE: No witnessing, notarization or legalization is necessary. If the assignment is notarized or legalized, then it will only be prima facie evidence of execution. 35 USC 261. Use next page if notarization is desired.

Notarization or Legalization Page Added.



UNITED STATES DEPARTMENT OF COMMERCE Patent and Trademark Office

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

SEPTEMBER 08, 1999

NOKIA INC. BRIAN T. RIVERS, ESQ. 6000 CONNECTION DRIVE IRVING, TX 75039 *101087562A*

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/30/1999 REEL/FRAME: 010075/0546

NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

MANDYAM, GIRIDHARD D. DOC DATE: 06/30/1999

ASSIGNEE:

NOKIA MOBILE PHONES LIMITED KEILALAHDENTIE 4 02150 ESPOO, FINLAND

SERIAL NUMBER: 09343829 FILING DATE: 06/30/1999

PATENT NUMBER: ISSUE DATE:

MARY BENTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

RECORDED: 09/27/1999

PATENT REEL: 010280 FRAME: 0327