Form DTO 4505				Altera Docket No. 975.331USW1
Form PTO 1595		08-31-200	01 ^t	U.S. Department of Commerce
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To the Honorable Commissioner of Patents (
	Commissioner of Patents a	10182932		or copy thereof
1. Name of	conveying party(ies)		Z. Name and address of	receiving party(ies):
Olli Piirair Aki Happ		17-01	Nokia Networks Oy Keilalahdentie 4 FIN-02150 Espoo Finland	27 2001
Additional names	s(s) of conveying party(ies)	es 🖾 No	Additional name(s) & addresses	attached? ☐ Yes ☑No
	conveyance:		A realization manife(b) a addresses	attached: 1 Tes 140
Execution Date: 30 July 2001 and 11 July 2001				
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 Ap 09/84875	pplication Number(s) 1		Patent Number(s)	
5. Name and concerning do	d address of party to whom ocument should be mailed:	Additional numbers attaccorrespondence	 Total number of applie Total fee (37 C.F.R. § 	cations and patents involved: 1 3.41) \$40.00 xcess or insufficiency should be
Name Address:	Michael B. Lasky Altera Law Group 6500 City West Parkway Minneapolis, Minnesota 00000029 09848751		_ credited or debited	d to deposit account rged to deposit account
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		T.	otal number of pages including co	over sheet, attachments, and document: 2
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PATENT REEL: 012115 FRAME: 0141

Altera Ref. No.: 975.331USW1

PATENT ASSIGNMENT TO CORPORATION WORLDWIDE

WHEREAS,

- 1. Olli Piirainen residing at Pikisaarentie 1 E 11, FIN-90100 Oulu, Finland and a citizen of Finland;
- 2. Aki Happonen residing at Rysakuja 5, FIN-90900 Kilminki, Finland and a citizen of Finland;

hereafter referred to as "THE UNDERSIGNED", have made an invention entitled A METHOD FOR IMPROVED CHANNEL IMPULSE RESPONSE ESTIMATION IN TDMA SYSTEMS

AND, WHEREAS, Nokia Networks Oy, hereafter referred to as ASSIGNEE, a corporation organized under the laws of Finland and whose place of business and business address is Keilalahdentie 4, FIN 02150 Espoo, Finland, is desirous of acquiring the entire right, title and interest in the same;

NOW, THEREFORE in consideration of the sum of One Dollar, the receipt whereof is acknowledged, and other good and valuable consideration, THE UNDERSIGNED hereby sell, assign and transfer unto ASSIGNEE the full and exclusive right to the said invention in the United States and the entire right, title and interest in and to all divisionals, continuations, continuations in part, reissues, reexaminations or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extension of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the said invention including an assignment of all rights under the provision of international conventions and all Letters Patent of foreign countries which may be granted therefrom; the UNDERSIGNED hereby authorize the Commissioner of Patents to issue any and all United States Letters Patent for the aforesaid invention to ASSIGNEE of the entire right, title and interest in and to the same, for the use of the ASSIGNEE, its successors and assigns.

THE UNDERSIGNED, hereby agree that THE UNDERSIGNED, their executors and legal representatives will make, execute and deliver (without charge but at the expense of the ASSIGNEE) any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said ASSIGNEE, its successors and representatives all facts Known to THE UNDERSIGNED relating to said invention and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable to vest the ASSIGNEE, its successors or assigns the entire right, title and interest in and to the said invention, applications, Letters Patent, rights, titles and benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

THE UNDERSIGNED represent and agree with said Assignee its successors and assignees, that no assignment grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by THE UNDERSIGNED, and that full right to convey the same as herein expressed is possessed by THE UNDERSIGNED.

IN TESTIMONY WHEREOF, THE UNDERSIGNED have hereunto set their hand on the dates indicated below.

| 30,37001 |
| Date | 11, 7, 2001 |
| Date | Date |

No Legalization Required

RECORDED: 08/27/2001

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