## PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

### **CONVEYING PARTY DATA**

Name	Execution Date
Timo Lunttila	07/27/2011
Tommi Koivisto	08/01/2011
Timo Roman	07/11/2011
Mihai Enescu	08/08/2011

### **RECEIVING PARTY DATA**

Name:	Nokia Corporation
Street Address:	Keilalahdentie 4
City:	Espoo
State/Country:	FINLAND
Postal Code:	02150

### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	13080347

## **CORRESPONDENCE DATA**

Fax Number: (972)894-5619

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 1-972-894-5867

Email: amanda.2.alvarez@nokia.com

Correspondent Name: Nokia Corporation
Address Line 1: 6021 Connection Drive

Address Line 2: MS 2-5-520

Address Line 4: Irving, TEXAS 75039

ATTORNEY DOCKET NUMBER: NC72474US

NAME OF SUBMITTER: Thomas J. Arria

Total Attachments: 5

PATENT REEL: 026847 FRAME: 0285 \$40.00 130803

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PATENT REEL: 026847 FRAME: 0286

## **ASSIGNMENT**

Title of Invention	CHANNEL STATE INFORMATION FEEDBACK FOR ENHANCED DOWNLINK MULTIPLE INPUT - MULTIPLE OUTPUT OPERATION	
⊠ υ.s. ⊠ υ.s.		filed on April 5, 2010 filed on April 5, 2011
·		

As the below named inventor(s), I/we have invented certain improvements in the patent application for which I/we have filed an application for Letters Patent of the United States of America as identified above;

WHEREAS, I/we authorize the attorney of record to update this document to include Patent Office information as deemed necessary (i.e., filing date, serial number, etc.);

WHEREAS, NOKIA CORPORATION, a corporation organized under the laws of Finland, having its principal office in Espoo, Finland (hereinafter referred to as "ASSIGNEE"), is desirous of acquiring the entire right, title and interest in and under the said invention and the said application, and in and to any and all Letters Patent which shall be granted therefore in the United States of America and in any and all foreign countries;

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I/we have sold and do hereby sell, assign, transfer and convey unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and to said invention and application, and in all divisionals, reissues, substitutions, continuations, continuation-in-part and, in any and all Letters Patents of the United States of America and all foreign countries or reissues, reexaminations, or extensions thereof which may be granted therefore or thereon, for the full end of the term for which said Letters Patent may be granted, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said ASSIGNEE, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by me if this assignment and sale had not been made.

I/WE ALSO HEREBY authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom to the said ASSIGNEE of my/our entire right, title and interest.

I/WE FURTHER HEREBY sell and assign to said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said application throughout the world, including, without limitation, the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention and all rights to register said invention in appropriate registries. I/we further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in ASSIGNEE, its successors, assigns and legal representatives.

I/WE HEREBY covenant that I/we have not and I/we will not execute any agreement in conflict herewith.

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### **ASSIGNMENT**

I/WE HEREBY further covenant, and agree to bind my/our heirs, legal representatives, and assigns, promptly to communicate to said ASSIGNEE or its representatives any facts known to me relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said ASSIGNEE, its successors, assigns, and other legal representatives.

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

inventor: Timo Lunttila	Date: $27/7/2011$
Signature: Two Ltz	Residence: Espoo, FI
Witness Signature: Jari Lindholm	Date: 27/7/2011

# **ASSIGNMENT**

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

nventor:Tommi Koivisto	Date: August (ct., 2017
Signature:	Residence: Espoo, FI
Witness Signature:	- Date:

# **ASSIGNMENT**

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

Inventor:Timo Roman	Date:
Signature:	Residence: Espoo, Fi
Witness Signature:	
Printed Name: Mona Roman	Date.

# **ASSIGNMENT**

IN WITNESS WHEREOF, I/we have hereunto set my/our hand and seal on the date indicated below.

Inventor: Mihai Enescu	Date:
Signature:	Residence: Espoo, FI
Witness Signature:  Printed Name: Felipe Del Carpio	Date: <u>08/08/2011</u>

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