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NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT	
CONVEYING PARTY	DATA			
		Name	Execution Date	
JOON HO CHO			06/05/2018	
PETER WINZER			06/05/2018	
CHANDRASEKHAR S	SETHUMAD	HAVAN	06/11/2019	
RECEIVING PARTY [ΟΑΤΑ			
Name:		SOLUTIONS AND NETWORKS C	Y	
Street Address:	KARAKA	KARAKAARI 7		
City:	ESPOO			
State/Country:	FINLANI	FINLAND		
Postal Code:	02610	02610		
Property Typ		Number		
PROPERTY NUMBER	RS Total: 1			
Application Number:	1	6295089		
CORRESPONDENCE				
Fax Number:	•	215)557-8477 the e-mail address first, if that i	is unsuccessful, it will be cont	
		the e-mail address first; if that i if that is unsuccessful, it will b		
Phone: 215-5		15-557-6656	557-6656	
Email: amy@		my@mendelip.com, Nokia.ipr@n	@mendelip.com, Nokia.ipr@nokia.com	
•		TEVE MENDELSOHN		
		IENDELSOHN DUNLEAVY, P.C.		
Address Line 2: 1500 JOHN F. KENNEDY BLVD., SUITE 312				
Address Line 4:	F	PHILADELPHIA, PENNSYLVANIA	A 19102	
ATTORNEY DOCKET	NUMBER:	105164-US-NP	105164-US-NP	
NAME OF SUBMITTER	R:	YURI GRUZDKOV	YURI GRUZDKOV	
SIGNATURE:		/Yuri Gruzdkov/	/Yuri Gruzdkov/	
DATE SIGNED:		11/15/2019	11/15/2019	
Total Attachments: 2				
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ASSIGNMENT AND AGREEMENT

For value received, we, Joon Ho Cho, of Holmdel, New Jersey, United States of America, Chandrasekhar Sethumadhavan, of Matawan, New Jersey, United States of America, Peter Winzer, of Aberdeen, New Jersey, United States of America, hereby sell, assign and transfer to Nokia Solutions and Networks Oy, a corporation established and existing under the laws of Finland, and having its principal place of business at Karaportti 3, 02610 Espoo, Finland, and its successors, assigns and legal representatives, the entire right, title and interest, for the United States of America, in and to certain inventions related to "METHODS AND APPARATUS FOR JOINT USE OF PROBABILISTIC SIGNAL SHAPING AND FORWARD ERROR CORRECTION" described in an application for Letters Patent of the United States, Serial No. 62/640820, filed 09-Mar-2018, and all the rights and privileges in said application and under any and all Letters Patent that may be granted in the United States for said inventions; and we also concurrently hereby sell, assign and transfer to Nokia Solutions and Networks Oy the entire right, title and interest in and to said inventions for all countries foreign to the United States, including all rights of priority arising from the application aforesaid, and all the rights and privileges under any and all forms of protection, including Letters Patent, that may be granted in said countries foreign to the United States for said inventions.

We authorize Nokia Solutions and Networks Oy to make application for such protection in its own name and maintain such protection in any and all countries foreign to the United States, and to invoke and claim for any application for patent or other form of protection for said inventions, without further authorization from us, any and all benefits, including the right of priority provided by any and all treaties, conventions, or agreements.

We hereby consent that a copy of this assignment shall be deemed a full legal and formal equivalent of any document which may be required in any country in proof of the right of Nokia Solutions and Networks Oy to apply for patent or other form of protection for said inventions and to claim the aforesaid benefit of the right of priority.

We request that any and all patents for said inventions be issued to Nokia Solutions and Networks Oy in the United States and in all countries foreign to the United States, or to such nominees as Nokia Solutions and Networks Oy may designate.

PATENT REEL: 051021 FRAME: 0765

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We agree that, when requested, we shall, without charge to Nokia Solutions and Networks Oy but at its expense, sign all papers, and do all acts which may be necessary, desirable or convenient in connection with said applications, patents, or other forms of protection.

Signature:	

Date: _06-05-2018

Inventor: Peter Winzer Signature:

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Date: <u>6/5/1</u>8

Inventor: Chandrasekhar Sethumadhavan S. after Signature:

18 6/11 Date: _

PATENT REEL: 051021 FRAME: 0766

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