PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
HUAWEI TECHNOLOGIES CO. LTD.	12/21/2017

RECEIVING PARTY DATA

Name:	NOKIA TECHNOLOGIES OY	
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PROPERTY NUMBERS Total: 4

Property Type	Number
Application Number:	12982195
Application Number:	13729732
Application Number:	14228825
Application Number:	14968433

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DATE SIGNED:	01/22/2018	

Total Attachments: 2

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> PATENT REEL: 044693 FRAME: 0582

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ASSIGNMENT OF PATENT RIGHTS

Effective as of December 21, 2017, for good and valuable consideration, the receipt of which is hereby acknowledged, Huawei Technologies Co., Ltd, a corporation validly organized and existing under the laws of China, ("Assignor"), does hereby sell, assign, transfer, and convey, and causes its Affiliates to do so, unto Nokia Technologies Oy, all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "Patent Rights"):

(a) the provisional patent applications, patent applications, and patents listed in the table below (the "Patents"):

Application Number	Patent or Publication No
CN200810132421.4	
PCT/CN2009/072007	
12/982,195	U.S. Patent No. 8,938,640
13/729,732	U.S. Patent No. 8,909,975
14/228,825	U.S. Patent No. 9,235,462
14/968,433	US Pub. No. 2016-0099828

- (b) all patents and patent applications: (i) to which any of the Patents directly or indirectly claims priority; and/or (ii) for which any of the Patents directly or indirectly forms a basis for priority;
- (c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);
- (d) all foreign patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention and utility models;
- (e) all items in any of the foregoing in categories (b) through (d), whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like, but excluding design patents, registered designs and copyright protections;
- (f) all rights to apply in any or all countries of the world for patents, certificates of invention, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (e), including, without limitation, under the

Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding:

- (g) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories (b) through (0, including, without limitation, all causes of action and other enforcement rights for (1) damages, (2) injunctive relief, and (3) any other remedies of any kind for past, current, and future infringement; and
- (h) all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (g).

IN WITNESS WHEREOF this Assignment of Patent Rights is hereby executed by the parties and signed by their duly authorized officers as of the day and year written below:

NOKIA TECHNOLOGIES OY

NOKIA TECHNOLOGIES OY

Signed by: A la

Signed by:

Name:

Susanna Martikainen Director, Strategic Licensing

Title: Date:

16 January 2718

Ass Asserted

Name:

Title:

Aura Möttönen

Date:

Senior Manager, Patant Licensing

16 Manuary 2018

HUAWEI TECHNOLOGIES CO., LTD

N.Toması

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Date:

RECORDED: 01/22/2018

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