PATENT ASSIGNMENT COVER SHEET

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SURMISSION TYPE: NEW ASSIGNMENT

EPAS ID: PAT4900279

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
KAI YING	03/22/2018
TATSUSHI AIBA	03/21/2018
TOSHIZO NOGAMI	03/21/2018
JOHN M. KOWALSKI	03/21/2018

RECEIVING PARTY DATA

Name:	Sharp Laboratories of America, Inc.	
Street Address:	5750 Northwest Pacific Rim Boulevard	
City:	Camas	
State/Country:	WASHINGTON	
Postal Code:	98607	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15928695

CORRESPONDENCE DATA

Fax Number: (801)606-2774

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

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Correspondent Name: WESLEY L. AUSTIN

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ATTORNEY DOCKET NUMBER: SLA3728

NAME OF SUBMITTER: WESLEY L. AUSTIN

SIGNATURE: /Wesley L. Austin/

DATE SIGNED: 04/04/2018

Total Attachments: 2

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PATENT 504853540 REEL: 045440 FRAME: 0302

ASSIGNMENT

WHEREAS, the undersigned Kai Ying, a resident of Vancouver, WA; Tatsushi Aiba, a resident of Vancouver, WA; Toshizo Nogami, a resident of Vancouver, WA; and John M. Kowalski, a resident of Vancouver, WA, (hereinafter termed "Inventors") have invented certain new and useful improvements in:

Downlink Control Channel for Uplink Ultra-Reliable and Low-Latency Communications

and have executed a declaration and oath for an application for a United States patent disclosing and identifying the invention:

\boxtimes	Declaration executed on March 21, 2018 by Aiba, Nogami, and Kowalski; and March 22, 2018 by Ying		
	or		
	Having been previously filed and assigned Serial Number and filing date; and		

WHEREAS Sharp Laboratories of America, Inc., a corporation of the State of Washington, (hereinafter termed "Assignee"), having a place of business at 5750 NW Pacific Rim Boulevard, Camas, Washington 98607, wishes to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Inventors (all collectively hereinafter termed "said invention"), and in and to any and all patents, certificates of invention and other forms of protection thereon (hereinafter termed "patents") applied for or granted in the United States and/or other countries.

NOW THEREFORE, for good and valuable consideration acknowledged by said Inventors to have been received in full from said Assignee:

1. Said Inventors hereby sell, assign, transfer and convey unto said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply in any and all countries of the world for patents, certificates of inventions or other government grants on said invention, including the right to apply for patents pursuant to the International Convention for the Protection of Industrial Property or pursuant to any other convention, treaty, agreement or understanding; (c) in and to any and all applications filed and any and all patents, certificates of inventions or other governmental grants granted on said invention in the United States or any other country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; (d) in and to each and every reissue or extension of any of said patents; and (e) in and to each and every patent claim resulting from a reexamination certificate for any and all of said patents.

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- 2. Said Inventors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title and interest herein conveyed in the United States and other countries. Such cooperation by said Inventors shall include prompt production of pertinent facts and documents, giving of testimony, executing of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for complying with any duty of disclosure; (c) for prosecuting any of said applications; (d) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (e) for filing and prosecuting applications for reissue of any of said patents: (f) for interference or other priority proceedings involving said invention; and (g) for legal proceedings involving said invention and any applications therefore and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, reexamination proceedings, compulsory licensing proceedings, infringement actions and court actions; provided, however, that the expense incurred by said Inventors in providing such cooperation shall be paid for by said Assignee.
- The terms and covenants of this Assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Inventors, said Inventors' heirs, legal representatives and assigns.
- 4. Said Inventors hereby warrant and represent that said Inventors have not entered and will not enter into any assignment, contract, or understanding in conflict with this Assignment.

IN WITNESS WHEREOF, the said Inventors have executed this Assignment on the date given below:

Kai You	3/22/218
Kai Ying (Signature)	(Date)
Taisel aske	Mah 2/2018
Tatsushi Aiba (Signature)	(Date)
Take Dyn.	March 21, 2018
Toshizo Negami (Signature)	(Date)
A. La	3/21/18
John M. Kowálski (Signature)	(Date)
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