507564977 10/26/2022 PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:		NEW ASSIGNMENT	
NATURE OF CONVEYANCE:		ASSIGNMENT	
CONVEYING PARTY	DATA		
		Name	Execution Date
PAUL MARINIER			04/21/2017
BENOIT PELLETIER			11/04/2016
J. PATRICK TOOHER		11/04/2016	
RECEIVING PARTY I	ΟΑΤΑ		
		DIGITAL PATENT HOLDINGS, INC.	
RECEIVING PARTY I Name: Street Address:	INTERD	DIGITAL PATENT HOLDINGS, INC.	
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PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	16274422
Application Number:	16853152

CORRESPONDENCE DATA

Fax Number:

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. -Dha

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ATTORNEY DOCKET NUMBER:	2014P00186 US02 & US03
NAME OF SUBMITTER:	YIN SHAO
SIGNATURE:	/Yin Shao/
DATE SIGNED:	10/26/2022
Total Attachments: 5	

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WORLDWIDE ASSIGNMENT

WHEREAS:

- Paul Marinier 1805 Stravinski Brossard, QC J4X 2J7 Canada

 J. Patrick Tooher 7171 Drolet Montreal, QC H2R 2C1 Canada

(hereinafter "Assignors") have invented a certain invention currently entitled:

METHOD AND APPARATUS FOR NON-ORTHOGONAL ACCESS IN LTE SYSTEMS

for which an application for a patent of the United States on Mar 13, 2015, under U.S. Patent Application Serial No. 15/126,142 has been filed, and

WHEREAS, InterDigital Patent Holdings, Inc. having a place of business at 200 Bellevue Parkway, Suite 300, Wilmington, DE 19809 (hereinafter "Assignee"), a corporation of DE is desirous of acquiring the entire right, title and interest in and to the aforementioned patent application (hereinafter "Application"), and the invention(s) disclosed therein and in and to all embodiments and improvements of the invention(s), conceived, made or discovered by Assignors (hereinafter "Invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter "Patents") thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in deliberation of good and valuable consideration acknowledged by Assignors to have been received in full from Assignee:

- 1. Assignors hereby sell, assign, transfer and convey to Assignee full and exclusive right, title and interest (a) in and to Application and Invention; (b) in and to all rights to apply for patents covering the Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all Patents granted, covering the Invention, in any and all countries and groups of countries, including each and every application filed and each and every Patenti granted on any application which is a division, substitution, continuation, or continuation-in-part of the Application; (d) in and to each and every reissue or extension of any of the Patents; and (e) including our full right to sue for and collect damages for past violations of Assignor's rights in and to the Application and Invention including but not limited to provisional rights having arisen from any publication of the Application or any continuations, continuations-in-part, divisions.
- 2. Assignors hereby covenant and agree to cooperate with Assignee to enable Assignee to enjoy to the fullest extent the right, title and interest to the Invention herein conveyed in any and all countries and groups of countries. Such cooperation by Assignors, in general, shall include doing everything possible to aid Assignee to obtain and enforce, for benefit of Assignee, proper patent protection for the Invention in any and all countries; and in particular, such cooperation by Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by Assignee (a) for perfecting in Assignee the right, title and interest herein conveyed; (b) for prosecuting the Application, or related applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering embodiments of the Invention; (d) for filing and prosecuting applications for reissuance of any of the Patents; (e) for interference or other priority proceedings involving the Invention; and (f) for legal proceedings involving the Invention and any application therefore and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions.

PATENT REEL: 061548 FRAME: 0924

- 3. Assignors hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty is to issue patents on applications as aforesaid, to issue to Assignee, as Assignee of the entire right, title and interest, any and all Patents that may be issued and granted on or as a result of the Application in accordance with the terms of this Assignment.
- 4. Assignors hereby warrant and represent that Assignors have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.
- The term and covenants of this Assignment shall inure to the benefit of Assignee, its successors, assigns and other legal representatives, and shall be binding upon Assignors and Assignors' respective heirs, legal representatives and assigns.
- 6. Assignors hereby authorize Assignee, its attorneys or agents, to insert into this Assignment the correct Application Number and/or Filing Date, if none is indicated on the date of Assignors' execution of this Assignment.
- 7. This Assignment should be deemed effective as of March 13, 2015.
- 8. This Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, Assignors hereby authorize our attorneys to collect the signature pages of each executed counterpart and to attach those signature pages to a single copy of this instrument, which single copy and attached signature pages together shall constitute an original of this Assignment.

IN WITNESS WHEREOF, Assignors have executed and delivered this instrument to Assignee on the date(s) indicated below.

Docket Ref.: 11992US02

Signed at	menhaed ac Grade
(C	ity) (Country)
STATEMENT OF WITNES	
whose full address is:	Name of Witness 1000 Sherbrooke St. West, 10th Floor MTL, QC Canada H3A 3G4 Address of Witness

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Worldwide Assignment

whose full address is:

and the second	Docket Ref.: 11992US02
/ Benoit Pelletier	

Date

Signed at

(City)

olar 4 XOL

STATEMENT OF WITNESS: I,

(Country)

Name of Witness 1000 Shertanboke St. West, 1016 Ploor MTL, QC Canada H3A 364

Address of Witness

was personally present and did see Benoit Pelletier execute this Assignment on the $\underline{\forall}$ day of $\underline{\forall}$ day $\underline{\forall}$, $\underline{\forall}$, \underline{\forall}, \underline{\forall

Signature of Witness

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Worldwide Assignment

Date	J. Patrick Tooher	
Signed at	red to Condo	
(City)	(Country)	
STATEMENT OF WITNESS: I,	Rong Gazale	
	1000 Sherbrook None WEW IN 1880 Floor MTL, QC Canada H3A 364	
whose full address is:	Address of Witness	
was norrought propert and did see.	J. Patrick Tooher execute this Assignment on the	day c herein.

Signature of Witness

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RECORDED: 10/26/2022