

## PATENT ASSIGNMENT COVER SHEET

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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
TATU V. J. HARVIAINEN	04/16/2018
<b>RECEIVING PARTY DATA</b>	
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15754551
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<b>ATTORNEY DOCKET NUMBER:</b>	IDC-12554US02
<b>NAME OF SUBMITTER:</b>	ROBERT J. IRVINE III
<b>SIGNATURE:</b>	/Robert J. Irvine III/
<b>DATE SIGNED:</b>	05/18/2018
<b>Total Attachments: 3</b>	
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source=IDC-12554US02-Fully Executed Assignment#page3.tif	

**ASSIGNMENT**  
(Patent Application)

WHEREAS, I/We,

1. **Tatu V. J. Harviainen**  
**Helsinki**  
**Finland**

hereinafter referred to as the ASSIGNORS, are joint/sole inventors of certain inventions or improvements for which we/I have made application for Letters Patent to the United States, identified as Application No. 15/754,551, filed on February 22, 2018, entitled:

**“SYSTEMS AND METHODS FOR ENHANCING AUGMENTED REALITY  
EXPERIENCE WITH DYNAMIC OUTPUT MAPPING”**

WHEREAS, **PCMS Holdings, Inc.**, hereinafter referred to as the ASSIGNEE, of **200 Bellevue Parkway, Suite 300, Wilmington, Delaware 19809** a corporation of Delaware, is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, we, the said ASSIGNORS, to the extent we possess any rights, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said ASSIGNEE, our entire right, title and interest in and to said inventions or improvements in the above-referenced patent application, and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, including our full right to sue for and collect damages for past violations of provisional rights having arisen from any publication of said application or any continuations, divisions, or renewals of or substitutes for said application, and the right to claim priority to the above-referenced application. We further assign to and authorize said ASSIGNEE, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said ASSIGNEE, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that the inventions or improvements in the above-referenced patent application originate from work performed by ASSIGNORS as employees of and by virtue of the Act on the Right in Employee Inventions 29.12.1967/656, VTT acquired all rights in said invention from ASSIGNORS and

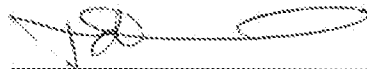
notwithstanding the Act of the Right in Employee Inventions, we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that, we will each time request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said ASSIGNEE, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said ASSIGNEE or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to sign all lawful papers to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, all said assistance being limited to reasonable and customary normal patent filing and prosecution procedures provided that any expense incurred in providing such assistance shall be borne by ASSIGNEE, to aid said ASSIGNEE, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries, further notwithstanding the above, to the extent any necessary or desirable patent filing or prosecution procedure does not require action by all inventors and can be satisfied by less than all inventors, ASSIGNEE shall first apply agreements between InterDigital and VTT and solicit cooperation from such ASSIGNORS as may be presently employed by VTT before soliciting cooperation from other ASSIGNORS to the extent such further cooperation is still necessary or desirable, provided that any cooperation by those other ASSIGNORS involving more time than customary for review of filings and required signatures shall be entitled to reasonable compensation for their time as well as expenses, including any required travel time, and we further agree that we shall provide assistance necessary or beneficial to the enforcement of any resulting patents that is beyond reasonable and customary patent filing and prosecution procedures (such as testifying in any legal proceedings) provided that such additional assistance is compensated on terms mutually agreed to by the parties at that time, and nothing in this covenant should be construed as obviating any obligation of compensation defined in other agreements.

AND we 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 it is to issue patents on applications as aforesaid, to issue to said ASSIGNEE, as ASSIGNEE of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

AND this Assignment may be executed in multiple counterparts, each of which shall be deemed to be an original of this Assignment. Additionally, we 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. We hereby authorize our attorneys to insert above the application number and filing date of the above-described patent application when known.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

16<sup>th</sup> of April 2018  
Date

  
Tatu V. J. Harviainen

Signed at Espoo Finland  
(City and Country)

STATEMENT OF WITNESS: I, Sergey Valleri  
Name of Witness

whose full address is: Rautatie 25A, FI-02130 Espoo,  
Address of Witness Finland

was personally present and did see Tatu V. J. Harviainen execute this  
Assignment on the 16<sup>th</sup> day of April, 2018 and such  
Assignor is personally known to me to be the person described herein.

  
Signature of Witness