

Declaration of Dr. Apostolos K. Kakaes  
U.S. Patent No. 9,509,440

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner

v.

TELEFONAKTIEBOLAGET LM ERICSSON,  
Patent Owner

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*Inter Partes* Review Case No. IPR2022-00457  
U.S. Patent No. 9,509,440

**DECLARATION OF DR. APOSTOLOS K. KAKAES, PH.D.  
IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF  
U.S. PATENT NO. 9,509,440**

IPR2022-00457

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**TABLE OF EXHIBITS FOR THE PETITION**

<b>Exhibit No.</b>	<b>Description</b>
<b>1001</b>	U.S. Patent No. 9,509,440
<b>1002</b>	Certified File History of U.S. Patent No. 9,509,440 (“the ’904 Application”)
<b>1003</b>	Declaration of Dr. Apostolos Kakaes for <i>Inter Partes</i> Review of U.S. Patent No. 9,509,440
<b>1004</b>	<i>Curriculum Vitae</i> of Dr. Apostolos Kakaes
<b>1005</b>	Intentionally Omitted
<b>1006</b>	U.S. Patent No. 9,648,601 (“Wang”)
<b>1007</b>	Arunabha Ghosh, et al., Fundamentals of LTE (Pub. 2011) (“Ghosh”)
<b>1008</b>	Stefania Sesia, et al., LTE - The UMTS Long Term Evolution: From Theory to Practice (2nd ed., 2011) (“Sesia”)
<b>1009</b>	3GPP TS 36.213, Evolved Universal Terrestrial Radio Access (EULTRA), Physical Layer Procedures, Version 10.3 (Release 10)
<b>1010</b>	Declaration of James Mullins in Support of the Public Availability of Fundamentals of LTE, Arunabha Ghosh, et. al., (Pub. 2011); LTE -The UMTS Long Term Evolution: From Theory to Practice, Stefania Sesia, et al., (2nd ed., 2011); and LTE for UMTS, Evolution to LTE Advanced, Harri Holma & Antti Toskala (2nd ed., 2011)
<b>1011</b>	International Publication Number WO 2013/123961 A1 to Lahetkangas et al. (“Lahetkangas”)
<b>1012</b>	International Publication Number WO 2014/029108 A1
<b>1013</b>	Holma, Harri & Toskala, Antti, LTE for UMTS: Evolution to LTEAdvanced, Second Edition, (Pub. 2011) (“Holma”)
<b>1014</b>	RESERVED
<b>1015</b>	Erik Dahlman et al., 4G LTE / LTE-Advanced for Mobile Broadband (Pub. 2011) (“Dahlman”)
<b>1016</b>	Declaration of Friedhelm Rodermund in Support of the Public Availability of 3GPP TS 36.213 V10.3

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