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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC., MICROSOFT CORPORATION, MICROSOFT MOBILE OY,  
AND MICROSOFT MOBILE INC. (f/k/a NOKIA INC.)  
Petitioner

v.

EVOLVED WIRELESS LLC,  
Patent Owner

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**PETITION FOR INTER PARTES REVIEW  
OF U.S. PATENT NO. 8,218,481**

**Case No. IPR2017-00927**

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**Mail Stop Patent Board**  
Patent Trial and Appeal Board  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**EXHIBITS**

<b>Exhibit No.</b>	<b>Short Name</b>	<b>Description</b>
1001	481 Patent	U.S. Patent No. 8,218,481
1002	Panasonic 700	“RACH preamble evaluation in E-UTRA uplink,” 3GPP Tdoc R1-060700, Panasonic, TSG-RAN WG1 Meeting #44, Denver, USA, February 13-17, 2006
1003	Panasonic 114	“Random access design for E-UTRA uplink,” 3GPP Tdoc R1-061114, Panasonic, TSG-RAN WG1 Meeting #45, Shanghai, China, May 8-12, 2006
1004	Chu	“Polyphase Codes With Good Periodic Correlation Properties,” D.C. Chu, IEEE Transactions on Information Theory, pp. 531-32, July 1972
1005	481 File History	File History of U.S. Patent Application No. 12/303,947, which issued as the 481 Patent
1006	Huawei 797	“RACH design for E-UTRA,” 3GPP Tdoc R1-060797, Huawei, TSG-RAN WG1 Meeting #44bis, Athens, Greece, March 27-31, 2006
1007	Samsung 028	U.S. Patent No. US 7,702,028 B2, originally assigned to Samsung Electronics Co., Ltd.
1008	Motorola/TI 893	“Proposal for RACH Preambles,” 3GPP Tdoc TSGR1#6(99)893, Motorola and Texas Instruments, TSG-RAN WG1 Meeting #6, Espoo, Finland, July 13-16, 1999
1009	TI 058	“RACH Preamble Design,” 3GPP Tdoc R1-051058, Texas Instruments, TSG-RAN WG1 Meeting #42bis, San Diego, USA, October 10-14, 2005
1010	Motorola 884	“Random Access Sequence Design,” 3GPP Tdoc R1-060884, Motorola, TSG-RAN WG1

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