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Filed on behalf of Apple Inc.

By: Jason D. Kipnis, Reg. No. 40,680
Mary V. Sooter, Reg. No. 71,022
Richard Goldenberg, Reg. No. 38,895
David L. Cavanaugh, Reg. No. 36,476
Ravinder Deol, Reg. No. 62,165
Wilmer Cutler Pickering Hale and Dorr LLP
60 State Street
Boston, Massachusetts 02109
Tel: (617) 526-6000
Email: Jason.Kipnis@wilmerhale.com
Mindy.Sooter@wilmerhale.com
Richard.Goldenberg@wilmerhale.com
David.Cavanaugh@wilmerhale.com
Ravi.Deol@wilmerhale.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.
Petitioner

v.

OPTIS CELLULAR TECHNOLOGY, LLC
Patent Owner

Case IPR2020-00465

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 8,102,833 B2
CHALLENGING CLAIMS 1-14**

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I. INTRODUCTION

Apple Inc. (“Apple” or “Petitioner”) respectfully requests *Inter Partes* Review of claims 1-14 of U.S. Patent No. 8,102,833 (“’833 patent”) (Ex-1001) pursuant to 35 U.S.C. §§311-19 and 37 C.F.R. §42.1 *et seq.*

The ’833 patent relates to the transmission of uplink signals in a wireless communication system. The claims of the ’833 patent require (1) a particular arrangement of three types of signals (data, control, and ACK/NACK) in an uplink transmission and (2) three specific steps (multiplexing, mapping, and overwriting) for producing such an arrangement. A combination of prior art references not before the examiner render these two requirements obvious. For example, *Cho*¹ and *Samsung*² disclose the claimed arrangement of control signals and ACK/NACK signals, respectively. And *Qualcomm*³ and *Qualcomm-269*⁴ disclose

¹ U.S. Patent Application Publication 2006/0262871 (Ex-1005).

² Samsung, *Control Signaling Location in Presence of Data in E-UTRA UL*, 3GPP TSG RAN #49 Document R1-073094 (Ex-1008).

³ Qualcomm Europe, Draft Change Request: 36.212.v.8.0.0, Document R1-075037 (Ex-1006).

⁴ Qualcomm Europe, *Rate matching details for control and data multiplexing*, 3GPP TSG-RAN #50 Document R1-073269 (Ex-1007).

the multiplexing, mapping, and overwriting steps required by the claims to produce the particular arrangement of signals. These references, all of which relate to the formatting of uplink signals in a wireless network, would have been obvious to combine to ensure that high priority signals, like ACK/NACK and control signals, are placed in reliable locations in the uplink transmission. Accordingly, Petitioner respectfully requests that the Board institute *inter partes* review, and cancel claims 1-14.

II. MANDATORY NOTICES

A. Real Party-in-Interest

Apple is the real party-in-interest.

B. Related Matters

Optis Wireless Technology, LLC, Optis Cellular Technology, LLC (“Patent Owner”), Unwired Planet, LLC, Unwired Planet International Limited, and PanOptis Patent Management, LLC (“Plaintiffs”) have asserted the ’833 patent against Apple in *Optis Wireless Technology, LLC v. Apple Inc.*, No. 2:19-cv-00066-JRG (E.D. Tex.) (Ex-1009) (“district court case”).

Huawei Device Co., Ltd. previously filed a petition for *inter partes* review of claims 1-14 of the ’833 patent in *Huawei Device Co., Ltd. v. Optis Cellular Technology, LLC*, IPR2018-00807 (PTAB) (Ex-1010, “Huawei IPR”).

C. Counsel

Lead Counsel: Jason D. Kipnis (Registration No. 40,680)

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