

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

**QUALCOMM INC. AND QUALCOMM TECHNOLOGIES,
INC.,**

Petitioners,

v.

APPLE INC.,

Patent Owner.

U.S. PATENT NO. 7,760,559

**TITLE: INTEGRATED CIRCUIT WITH SEPARATE SUPPLY
VOLTAGE FOR MEMORY THAT IS DIFFERENT FROM
LOGIC CIRCUIT SUPPLY VOLTAGE**

Issue Date: July 20, 2010

PETITION FOR *INTER PARTES* REVIEW
UNDER 35 U.S.C. § 312

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I. Introduction

Pursuant to 35 U.S.C. § 312 and 37 C.F.R. § 42.100 *et seq.*, Qualcomm Inc. and Qualcomm Technologies, Inc. (collectively, “Petitioners” or “Qualcomm”) request *inter partes* review (“IPR”) of claims 1–4 (the “Challenged Claims”) of U.S. Patent No. 7,760,559 (“the ’559 Patent,” Ex. 1001), which issued on July 20, 2010, and is assigned to Apple, Inc. (“Apple”).

The ’559 Patent is directed to an integrated circuit having at least one logic circuit and one memory circuit, each of which is supplied by respective first and second supply voltages. Ex. 1001, [57], 2:8–11, 3:26–40, Fig. 1 (disclosing “Logic Circuits 12” supplied by supply voltage V_L and “Memory Circuits 14” supplied by supply voltage V_M). According to the ’559 Patent, if a single voltage is used to supply both the logic and memory circuits, then this common supply voltage can be reduced only so far due to memory reliability issues. *Id.*, 1:20–2:4. “As supply voltage decreases below a certain voltage, the ability to reliably read and write the memory decreases.” *Id.*, 1:47–50; *see also id.*, 2:1–4. The ’559 Patent supposedly improved upon the prior art by using separate supply voltages for the logic and memory circuits. This allows the logic and memory supply voltages to be different, including allowing the logic supply voltage to be lower than the memory supply voltage in order to further conserve power. *Id.*, 2:53–61, 3:26–40, Fig. 1; *see also* Ex. 1002 ¶¶ 31–34 (Clark Decl.).

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