

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

CALIFORNIA INSTITUTE OF TECHNOLOGY,
Patent Owner.

Case IPR2017-00219
Patent No. 7,116,710

**PATENT OWNER'S PRELIMINARY RESPONSE
PURSUANT TO 37 C.F.R. § 42.107**

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I. INTRODUCTION

The Board should not institute *inter partes* review (IPR) on claims 1-8, 10-17, and 19-33 of U.S. Patent No. 7,116,710 (“the ’710 patent”) because petitioner Apple Inc. (“Petitioner” or “Apple”) has not met its burden of showing that it has a reasonable likelihood of prevailing on any of its proposed grounds of unpatentability.

As an initial matter, the present petition rehashes substantially the same art and arguments that have already been presented to the Office and rejected by the Board in previous IPR challenges. Petitioner acknowledges that the ’710 patent was already “challenged in two petitions for *inter partes* review” (Pet. p. 3.)—the Board rejected both of those petitions.

In one of those previous challenges, the *Hughes* IPR2015-00068 case, the Hughes petitioner relied on the Divsalar reference in view of a patent to Luby, *et al.* (“the Luby ’909 patent”) in each of the grounds presented. In this instance, Petitioner presents the same Divsalar reference and substitutes the Luby paper for the Luby ’909 patent to present substantially the same art and arguments that the Board rejected in a prior petition. This is particularly important in the present case—both for purposes of analysis under 35 U.S.C. §325(d) and because the current Luby paper presents the same deficiencies that were a basis for rejecting the Divsalar/Luby ’909 patent challenge.

In the present instance, the Petitioner has fundamentally misapprehended the disclosure of Luby by focusing on the buzzword “irregular” without adequately addressing substance of the disclosure. Once the disclosure of Luby is scrutinized closely, as the Board did in the previous *Hughes* IPR2015-00068 Decision denying institution (Paper 18), the Petitioner’s challenge in this case similarly collapses on itself. There, the Board recognized that “irregular graphing” in Luby is not the same as the irregular repetition recited in the ’710 patent claims. IPR2015-00068, Paper 18 at 15 (“Petitioner has not provided sufficient evidence or argument to support the contention that ‘irregular graphing’ of Luby teaches the...” irregular repetition of information bits, as recited in the claims in the claims.)

Submitted herewith is a declaration from Dr. R. Michael Tanner, an expert in graphical analysis of codes and the inventor of the “Tanner graph.” (Ex. 2001, ¶¶ 1-6); *see also* Ex. 2002.¹ Dr. Tanner confirms, as previously recognized by the Board, that the “irregular graphing” of Luby fails to provide the irregular repetition of information bits recited in the challenged claims. As discussed in greater detail

¹ Dr. Tanner’s testimony is submitted to explain a deficiency in the petition materials. *See e.g., Arris Group, Inc., et al. v. Mobile Telecomms. Techs., LLC*, No. IPR2016-00765, Paper 12 (PTAB September 21, 2016) (crediting testimony explaining the failure of the petitioner to address or recognize a deficiency in the disclosure of a cited reference).

below, Dr. Tanner explains how the very Tanner graph provided by Petitioner as a *regular* repeat-accumulate code already exhibits *irregularity* as defined by Luby (i.e., “irregular graphing”). In other words, Petitioner fundamentally misapprehends the difference between “irregular graphing” in Luby and irregular repetition in the challenged claims.

As such, even assuming the relied-upon references qualify as prior art—which they do not—the proposed grounds of challenge fail to demonstrate that each feature of claims 1-8, 10-17 and 19-33 of the ’710 patent is found in the cited art. Multiple aspects of the claimed subject matter are missing from the asserted references. Moreover, the rationale for combining the references is unsupported and is tainted by the same misapprehension of the reference disclosures.

Accordingly, institution of *inter partes* review should be *denied*.

II. THE PRESENT PETITION RECYCLES PREVIOUS CHALLENGES REJECTED BY THE OFFICE

The instant petition presents one in a series of challenges to the ’710 patent, but rehashes substantially the same art and arguments already presented to the Office and rejected by the Board. Accordingly, the Board should exercise its discretion in denying institution on all grounds in the petition. 35 U.S.C. § 325(d) (“In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject

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