IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent of Diaz *et al.*	§	Petition for *Inter Partes* Review
	§	
U.S. Patent No. 5,812,789	§	Attorney Docket No.: 52959.21
	§	Customer No.: 27683
Issued: September 22, 1998	§	
	§	Real Party in Interest:
Title: Video and/or Audio Decompression and/or Compression Device That Shares a Memory Interface	§	Apple Inc.
	§	
	§	

Declaration of Robert Colwell, Ph.D.
Under 37 C.F.R. § 1.68

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I. Introduction

I, Robert Colwell, Ph.D., declare:

1. I am making this declaration at the request of Apple Inc. in the matter of the *Inter Partes* Review of U.S. Patent No. 5,812,789 ("the '789 Patent") to Diaz *et al*.

2. I am being compensated for my work in this matter. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the outcome of this matter or the specifics of my testimony.

3. In the preparation of this declaration, I have studied:

(1) The '789 Patent, Exhibit 1001;

(2) The prosecution history of the '789 Patent, Exhibit 1002;

(3) U.S. Patent No. 5,546,547 to Bowes *et al.* ("Bowes"), Exhibit 1005;

(4) Texas Instruments, Inc., Houston, TX, "TMS320C8x System Level Synopsis," (1995) (Literature Ref. SPRU113) ("TMS"), Exhibit 1006;

(5) U.S. Patent No. 5,001,625 to Thomas *et al.* ("Thomas"), Exhibit 1007;

(6) R. Gove, "The MVP: A Highly-Integrated Video Compression Chip", IEEE 1994 ("Gove"), Exhibit 1008;

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(7) U.S. Patent No. 5,768,533 to Ran ("Ran"), Exhibit 1009;

(8) U.S. Patent No. 5,742,797 to Celi *et al.* ("Celi"), Exhibit 1010;

(9) Joint Claim Construction and Prehearing Statement, *Parthenon Unified Memory Architecture LLC v. Apple Inc.*, case no. 2:15-cv-632-JRG-RSP (Feb. 16, 2016, E.D. Tex.), Exhibit 1011; and

(10) Decision of Institution of *Inter Partes* Review, *Samsung Elec. Co., Ltd., et al. v. Parthenon Unified Memory Architecture LLC*, IPR2015-01944 (Paper No. 7) , Exhibit 1012.

4. In forming the opinions expressed below, I have considered:

(1) The documents listed above,

(2) The relevant legal standards, including the standard for obviousness provided in *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398 (2007), and

(3) My own knowledge and experience, including my work experience in the fields of electrical engineering, computer engineering, computer architectures, memory interfacing, and multimedia technologies, and my experience in working with others involved in those fields, as described below.

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