

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ZTE CORPORATION, and ZTE (USA), Inc.,

Petitioner

v.

HITACHI MAXELL, LTD
Patent Owner

U.S. PATENT NO. 8,339,493
Case IPR No.: *To Be Assigned*

DECLARATION OF DR. BARMAK MANSOORIAN IN SUPPORT OF
PETITIONS FOR *INTER PARTES* REVIEW OF U.S. PATENT NO. 8,339,493.

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C. Ground C: Under 35 U.S.C. § 103, Parulski ‘406 (Ex. 1006) in view of Dunton ‘541 (Ex. 1007) renders independent claim 5 obvious. 36

D. Ground D: Under 35 U.S.C. § 103, Parulski ‘335 (Ex. 1003) in view of Parulski ‘343 (Ex. 1004) and Ishizuka ‘192 (Ex. 1005), renders dependent claim 6 obvious. 47

I. INTRODUCTION

1. My name is Barmak Mansoorian, and I have been retained by counsel for ZTE (USA) as an expert witness to opine on certain issues relating to U.S. Patent No. 8,339,493 titled “ELECTRIC CAMERA” (“the ‘493 Patent”) in ZTE’s Petition for *Inter Partes* Review of the ‘493 Patent (“ZTE IPR Petition”) which requests the Patent Trial and Appeal Board (“PTAB”) to review and cancel Claims 5 and 6, which based on my knowledge, are all the claims that are currently being asserted in a patent litigation against ZTE.

2. In this declaration, I will discuss the technology related to the ‘493 Patent, including an overview of the technology as it was known prior to, and up to the time of the filing of the applications. The overview of the relevant technology provides some of the basis for my opinions with respect to the ‘493 Patent.

3. My opinions are based on my years of education, research and experience, as well as my investigation and study of relevant materials. In forming my opinion, I have relied on information and evidence identified in this declaration, including the ‘493 Patent, the prosecution history of the ‘493 Patent, and prior art references listed as Exhibits to the Petition for *Inter Partes* Review of the ‘493 Patent.

4. I may rely upon these materials, my knowledge and experience, and/or additional materials to rebut arguments raised by the patent owner. Further,

I may also consider additional documents and information in forming any necessary opinions, including documents that may not yet have been provided to me.

5. My analysis of the materials produced in this investigation is ongoing and I will continue to review any new material as it is provided. This declaration represents only those opinions I have formed to date. I reserve the right to revise, supplement, and/or amend my opinions stated herein based on new information and on my continuing analysis of the materials already provided.

6. I am being compensated on a per hour basis for my time spent working on issues in this case. My compensation does not depend on the outcome of this matter or the opinions I express.

II. QUALIFICATIONS

7. Attached hereto as Appendix A is a true and correct copy of my *curriculum vitae*. I have summarized by educational background, work experience, and relevant qualifications in this section.

8. I am the founder and president of Forza Silicon Corporation and one of the world's leading experts in CMOS image sensors.

9. I have been involved in image sensor design for over 20 years as scientist, product developer, entrepreneur and mentor. My focus was in mixed-signal integrated circuit design, semiconductor device physics and device micro-

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