| UNITED STATES PATENT AND TRADEMARK OFFICE |
|---|
| BEFORE THE PATENT TRIAL AND APPEAL BOARD |
| SAMSUNG ELECTRONICS CO., LTD.; AND SAMSUNG ELECTRONICS AMERICA, INC. Petitioner |
| v. IMAGE PROCESSING TECHNOLOGIES, LLC |
| Patent Owner —————— |
| IPR2017-01190 Patent No. 6,717,518 |

PETITIONER'S REPLY



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LIST OF EXHIBITS¹

| Ex. | Description | Filing/Service |
|------|---|------------------|
| No. | • | Status |
| 1001 | U.S. Patent No. 6,717,518 ("the '518 Patent") | Filed and served |
| | | on 03/29/2017 |
| 1002 | Declaration of Dr. John C. Hart | Filed and served |
| | | on 03/29/2017 |
| 1003 | Curriculum Vitae for Dr. John C. Hart | Filed and served |
| | | on 03/29/2017 |
| 1004 | Prosecution File History of U.S. Patent No. 6,717,518 | Filed and served |
| | | on 03/29/2017 |
| 1005 | Martin Eriksson et al., Eye Tracking For Detection Of | Filed and served |
| | Driver Fatigue, IEEE Conference on Intelligent | on 03/29/2017 |
| | Transportation Systems (Nov. 1997) ("Eriksson") | |
| 1006 | Luigi Stringa, Eyes Detection For Face Recognition, | Filed and served |
| | Applied Artificial Intelligence (1993) ("Stringa") | on 03/29/2017 |
| 1007 | U.S. Patent No. 5,805,720, Facial Image Processing | Filed and served |
| | System (Filed Mar. 11, 1996) ("Suenaga") | on 03/29/2017 |
| 1008 | U.S. Patent No. 5,293,427, Eye Position Detecting | Filed and served |
| | System and Method Therefor (Filed Dec. 11, 1991) | on 03/29/2017 |
| | ("Ueno") | |
| 1009 | U.S. Patent No. 5,008,946, System For Recognizing | Filed and served |
| | Image (Filed Sept. 9, 1988) ("Ando") | on 03/29/2017 |
| 1010 | Declaration of William Garrity from U.C. Davis | Filed and served |
| | Regarding Stringa | on 03/29/2017 |
| 1011 | Declaration of Dr. Umit Ozguner Regarding Eriksson | Filed and served |
| | | on 03/29/2017 |
| 1012 | Excerpts from the Infringement Expert Report of Dr. | Filed and served |
| | Alan C. | on 08/03/2017 |
| | Bovik | |
| 1013 | [Proposed] Protective Order | Filed and served |
| | | on 08/03/2017 |

¹ Citations to non-patent publications are to the original page numbers of the publication, and citations to U.S. patents are to column:line number of the patents.



Petitioner's Reply in IPR2017-01190 (U.S. Patent No. 6,717,518)

| 1014 | Redline Comparison of [Proposed] Protective Order | Filed and served |
|------|---|------------------|
| | | on 08/03/2017 |
| 1015 | Deposition of Gerard P. Grenier (Supplemental | Served on |
| | Evidence regarding Exhibit 1005) | 11/01/2017 |
| 1016 | Declaration of Gerard P. Grenier (Supplemental | Served on |
| | Evidence regarding Exhibit 1005) | 11/01/2017 |
| 1017 | Martin Eriksson et al., Eye Tracking For | Served on |
| | Detection Of Driver Fatigue - Abstract | 11/01/2017 |
| | (Supplemental Evidence regarding Exhibit 1005) | |
| 1018 | Martin Eriksson et al., Eye Tracking For | Served on |
| | Detection Of Driver Fatigue - Abstract | 11/01/2017 |
| | (Supplemental Evidence regarding Exhibit 1005) | |
| 1019 | Martin Eriksson et al., Eye Tracking For | Served on |
| | Detection Of Driver Fatigue, IEEE Conference | 11/01/2017 |
| | on Intelligent Transportation Systems (Nov. | |
| | 1997) (Supplemental Evidence regarding Exhibit | |
| | 1005) | |

I. INTRODUCTION

The Board instituted review of the '518 Patent on two grounds: A) Claim 39 is obvious over Eriksson and Stringa; and B) Claim 39 is obvious over Ando and Suenaga. Paper 11 at 26.

Regarding Ground A, Patent Owner Image Processing Technologies ("IPT") relies on attorney argument alone to assert that Erikson and Stringa do not disclose "histograms." But IPT has already repeatedly admitted in this proceeding that the data representations cited in these references are histograms. Further, Eriksson, a peer reviewed, IEEE publication, expressly calls the cited data representations "histograms."

For Ground B, IPT argues that Suenaga does not disclose a "facial characteristic" other than the feature to be detected, but does not dispute that the primary Ground B reference, Ando, discloses this limitation.

IPT is thus left to argue that none of the references disclose Claim 39, because they all select and form histograms of *all* pixels in a particular area, rather than *only* pixels of the feature of the eye (iris, pupil, or cornea) being detected. This argument relies on an interpretation of the claim that has already been rejected by the Board and is contrary to the specification. Regardless, IPT's argument ignores disclosures in the references that plainly satisfy the claim, even under IPT's rejected interpretation.



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