

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

IMMERVISION, INC.,
Patent Owner.

Case IPR2023-00471
Patent 6,844,990

**PETITIONER'S REPLY TO
PATENT OWNER'S RESPONSE**

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PETITIONER'S EXHIBIT LIST

- APPLE-1001 U.S. Patent No. 6,844,990 to Artonne et al. (“the ’990 patent”)
- APPLE-1002 Prosecution History of the ’990 Patent (“Original Prosecution History”)
- APPLE-1003 Declaration of Dr. David Kessler, Ph.D.
- APPLE-1004 Curriculum Vitae of Dr. David Kessler, Ph.D.
- APPLE-1005 Service of complaint in *ImmerVision, Inc. v. Apple, Inc.*, D.Del. 1:21-cv-01733-MN-CJB (January 18, 2022)
- APPLE-1006 U.S. Patent No. 5,686,957 to Baker (“Baker”)
- APPLE-1007 “Fish Eye Lens” by K. Miyamoto (Feb. 19, 1964) (“Miyamoto”)
- APPLE-1008 Service of complaint in *ImmerVision, Inc. v. Apple, Inc.*, D.Del. 1:21-cv-01484-MN-CJB (January 18, 2022)
- APPLE-1009 U.S. Patent No. 3,953,111 to Fisher et al. (“Fisher”)
- APPLE-1010 U.S. Patent No. 6,128,145 to Nagaoka (“Nagaoka”)
- APPLE-1011 Reexamination File History for the ’990 Patent (“Reexam History”)
- APPLE-1012 EP 1028389 A2 to Shiota et al. (“Shiota”)
- APPLE-1013 Rebiai et al., “Image Distortion from Zoom Lenses: Modeling and Digital Correction,” 1992 IBC International Broadcasting Convention (July 1992) (“Rebiai”)
- APPLE-1014 JP 2000-242773 to Matsui et al. (“Matsui”) (original and translated documents also provided in APPLE-1011, 43-51, 180-198, as provided by Patent Owner during reexamination)

- APPLE-1015 U.S. Patent No. 5,861,999 to Tada (“Tada”)
- APPLE-1016 Zeljko Andreic, “Simple 180° field-of-view F-theta all-sky camera,” SPIE Proc. 1500 (Oct. 1, 1991) (“Andreic”)
- APPLE-1017 Abed Kassim et al., “Optical Performance of axial gradient and aspheric surface lenses: study and analysis,” SPIE’s 1994 International Symposium on Optics, Imaging, and Instrumentation, Vol. 2263 (Sept. 30, 1994) (“Kassim”)
- APPLE-1018 Susan Houde-Walter, “Recent Progress In Gradient-Index Optics,” SPIE Proc. 0935 (Apr. 8, 1988) (“Houde-Walter”)
- APPLE-1019 Petition for Inter Partes Review of U.S. Patent No. 6,844,990, filed by Panasonic System Networks Co., Ltd. (IPR2014-01438)
- APPLE-1020 Paul K. Manhart et al., “Fundamentals of macro axial gradient index optical design and engineering,” SPIE Opt. Eng. 36(6), 1607-1621 (June 1997) (“Manhart”)
- APPLE-1021 Vidal, “Interim Procedure for Discretionary Denials in AIA Post Grant Proceedings with Parallel District Court Litigation” (USPTO, June 2021)
- APPLE-1022 Scheduling Order entered in *ImmerVision, Inc. v. Apple, Inc.*, D.Del. 1:21-cv-01733-MN-CJB and *ImmerVision, Inc. v. Apple, Inc.*, D.Del. 1:21-cv-01484-MN-CJB (entered on June 21, 2022)
- APPLE-1023 Second Declaration of Dr. David Kessler, Ph.D.
- APPLE-1024 U.S. Patent No. 4,364,643 to Momiyama (“Momiyama”)
- APPLE-1025 Deposition Testimony of Mr. James F. Munro
- APPLE-1026 Excerpts from “Modern Lens Design,” textbook authored by Warren J. Smith (1992 edition)

APPLE-1027 J. Weng, "Motion and Structure from Line Correspondences:
Closed-Form Solution, Uniqueness, and Optimization," IEEE
Transactions on Pattern Analysis and Machine Intelligence, Vol.
14, No. 3 (Mar. 1992)

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