

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MOBILEYE GLOBAL, INC.,
Petitioner

v.

FACET TECHNOLOGY CORP.,
Patent Owner

IPR2024-01110
U.S. Patent No. 9,335,255 B2

**PATENT OWNER'S PRE-INSTITUTION SURREPLY
TO PETITIONER'S PRE-INSTITUTION REPLY**

Patent Owner's Exhibit List

Exhibit No.	Description
2001	Exclusive Patent License Agreement between Facet Technology Corp. and Mandli Communications, Inc. (and patent assignment coversheet), recorded at Reel No. 062371, Frame 0313
2002	Statutory Disclaimer of certain claims filed in file wrapper of U.S. Patent No. 9,335,255
2003	U.S. Provisional Patent Appl. No. 60/296,596
2004	Docket Control Order filed in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2005	Excerpts from U.S. District Court — Judicial Caseload Profile (2024 Ed.), <i>available at</i> https://www.uscourts.gov/file/78884/download
2006	Complaint Filed in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2007	Cover Pleading to Plaintiff's Disclosure Of Asserted Claims And Infringement Contentions, as served on August 26, 2024 in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2008	Cover Pleading to Defendant's Invalidity Contentions, as served on November 4, 2024 in <i>Facet Tech. Corp. v. Mobileye Glob., Inc.</i> , No. 2:24-cv-00058 (E.D. Tex.)
2009	National Institute of Standards and Technology, "Redefinition of 'Candela,'" <i>available at</i> https://www.nist.gov/si-redefinition/candela
2010	International Commission on Illumination, Standard. No. CIE S 017:2020 ILV: International Lighting Vocabulary, 2nd edition., entry no. 17-21-050, <i>available at</i> https://cie.co.at/eilvterm/17-21-050
2011	Excerpts from Stefanov, Konstantin D. CMOS Image Sensors. Bristol, UK: IOP Publishing, 2022.

Exhibit No.	Description
2012	Ang, Bernard, Keysight Technologies, “How to Achieve Accurate Sensor Characterization Using a Digital Multimeter” (Feb. 21, 2019), <i>available</i> at https://www.keysight.com/blogs/en/tech/bench/2019/01/24/how-to-achieve-accurate-sensor-characterization-using-a-digital-multimeter
2013	Steely, Sidney L., H. S. Lowery III, and R. H. Fugerer. "Laser-based direct-write scene generation methods for closed-loop focal-plane-array diagnostics." Technologies for Synthetic Environments: Hardware-in-the-Loop Testing. Vol. 2741. SPIE, 1996.
2014	Collins Dictionary Entry for “profile,” <i>available</i> at https://www.collinsdictionary.com/us/dictionary/english/profile
2015	Plaintiff Facet Technology Corp.’s Opposed Motion For Leave To Join Additional Parties, filed as Dkt. No. 32 in <i>Facet Technology Corp. v. Mobileye Global, Inc.</i> , Case No. 2:24-cv-00058-RWS-RSP (E.D. Tex.).
2016	Defendant Mobileye Global, Inc.’s Opposition To Facet’s Motion For Leave To Join Additional Parties, filed as Dkt. No. 35 in <i>Facet Technology Corp. v. Mobileye Global, Inc.</i> , Case No. 2:24-cv-00058-RWS-RSP (E.D. Tex.).
2017	Complaint For Declaratory Judgment Of Noninfringement And Demand For Jury Trial, filed as Dkt. No. 1 in <i>Mobileye Vision Technologies Ltd. et al v. Facet Technology Corp.</i> , Case No. 0:24-cv-04149-NEB-DLM (D. Minn.)
2018	Complaint for Patent Infringement, filed as Dkt. No. 1 in <i>Facet Technology Corp. v. General Motors LLC</i> , Case No. 2:24-cv-00035-RWS-RSP (E.D. Tex.)
2019	Docket Control Order, filed as Dkt. No. 22 in <i>Facet Technology Corp. v. General Motors LLC</i> , Case No. 2:24-cv-00035-RWS-RSP (E.D. Tex.)

I. PATENT OWNER’S “characterization profile” ARGUMENTS ARE CONSISTENT WITH ITS INFRINGEMENT CONTENTIONS

Petitioner’s contention that there is an inconsistency between the POPR’s “characterization profile” arguments and Patent Owner’s infringement contentions is plainly without merit. Paper No. 8, 1-2. Nothing in the POPR stated or suggested that characterization profiles cannot constitute or use histograms. To the contrary, Patent Owner argued that: (1) Lumia’s *specific* histogram, together with how Lumia *uses* that histogram, fails to determine a luminance value (POPR, 8-10), and (2) Lumia’s calibration is not a characterization profile because it does not describe the properties and performance characteristics of a sensor across various conditions (POPR at 10-13). Indeed, the portion of the POPR discussing “characterization profile” does not mention the word “histogram.” POPR, 10-13. That is for good reason—the Petition equates Lumia’s *calibration* (i.e. scale factor)—not Lumia’s histogram—with claim 15’s characterization profile. Pet., 45 (“a POSITA would have understood Lumia’s calibration to disclose a characterization profile”); *see also* Ex. 1014, 24 (“Calibration of the system was accomplished by acquiring an image of a calibrated white sheeting material and computing a scale factor”).

Moreover, the system referenced in Patent Owner’s infringement contentions—and its use of histograms—is readily distinguishable from Lumia. Lumia uses a single “scale factor” to translate light intensity values into retroreflectivity values. *See* POPR, 9-10, 13, 16-17. By contrast, the accused system

is described as using an “SVM classifier” (i.e. a machine learning tool), which is run on *three* histograms *along with* various other comprehensive sensor data (i.e. exposure/gain settings, average pixel brightness of various regions) to determine luminance values. Ex. 1023, 14-15. Petitioner presents no reasoned argument that Lumia is similar.

Because Petitioner’s “inconsistency” argument is without merit, Petitioner presents no credible basis for disputing Patent Owner’s interpretation of the term “characterization profile.”

II. LUMIA DOES NOT DISCLOSE OR SUGGEST A “characterization profile”

Petitioner’s argument that Lumia teaches a “characterization profile” describing sensor characteristics across various conditions is plainly erroneous. In particular, Petitioner argues that Lumia’s page 16 discloses a calibration procedure that takes into “different sign placements within the field of view and different sign colors.” Paper 8, 3.¹ However, at most, page 16 of Lumia only discusses *applying*

¹ Ex. 1014 has two sets of page numbering. To the extent that “Lumia, 16” refers to the numbering added by Petitioner, that page depicts the “comparative *results* of MSMRTS [i.e. Lumia’s system] and HHRR [i.e. an existing hand-held retroreflectometer]” *after* calibration, and has nothing to do with the design of Lumia’s system or its calibration procedure. Ex. 1014, 24-25 (emphasis added)

Lumia’s system to signs of different colors and at different locations—it gives no details about *calibrating* Lumia’s system (or any other form of sensor characterization) with various different signs. Ex. 1014, 16. Indeed, the only references to calibration on that page are: (1) “The intensity can be readily calibrated from laboratory measurements, while the distance can be measured using an appropriate laser ranging device” and (2) “The average value of each group corresponds to the average luminance, when properly calibrated.” *Id.* Plainly, neither of these passages actually describes any particular calibration procedure with any detail, little less one that takes into account various conditions.

Thus, the only disclosure of how Lumia’s system performs calibration is in Lumia’s experimental results section, which describes “[c]alibration of the system” as using a single “calibration target” of “calibrated white sheeting material” measured at a single observation angle (0.2°) and at a single distance (200 feet). Ex. 1014, 24. Thus, Petitioner identifies no calibration procedure disclosed in Lumia that takes into account various conditions.

III. PETITIONER’S PURPORTED “SOTERA” STIPUALTION IS INADEQUATE

The Director’s Interim Guidance provides that the PTAB will not exercise discretionary denial under *Fintiv* when the Petitioner submits a stipulation “[c]onsistent with *Sotera Wireless, Inc.*” Interim Guidance at 3. But Petitioner’s stipulation is facially inadequate—it only purports to bind Petitioner itself. Paper 8,

4. It ignores the relevant related parties that may attempt to assert—in the same court—the invalidity grounds that were raised or could have been raised in this IPR. In particular, Patent Owner has moved the District Court in the EDTX case to add as defendants Mobileye Vision Technologies, Ltd. (“MVTL”) and Mobileye, Inc. (“MI”), which are subsidiaries of Petitioner. Ex. 2015, 1, 5. Defendant Mobileye Global, Inc. (petitioner in this IPR) has opposed that motion as untimely, but has not disputed that MVTL and MI are related entities of Petitioner, nor that they participate in the relevant activities accused of infringement. Ex. 2016, 2-4, 7.

Moreover, MVTL and MI have filed a declaratory judgment complaint against Patent Owner in the District of Minnesota, where they allege that their “products constitute and/or incorporate the EyeQ3 and/or EyeQ4 SoCs” which were accused in the EDTX case against Petitioner, as well as in another EDTX case filed by Patent Owner against General Motors LLC (“GM”) alleging infringement of the ’255 Patent. Ex. 2017 ¶¶ 17-18, 21, 24; *see also* Ex. 2018 ¶¶ 2, 16, 37-40, 51-54; Ex. 2019. Thus, MVTL and MI have affirmatively manifested responsibility for defending the patent infringement accusations against GM and Petitioner. Accordingly, MVTL, MI, GM and Petitioner are all real-parties-in-interest in this IPR, although the Petition, without explanation, only identifies Petitioner as a real-party-in-interest. Pet., 56.

As the stipulation in *Sotera* itself demonstrates, a proper *Sotera* stipulation

must bind all the relevant related parties. *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper No. 12 at 2, n.1 (PTAB Dec. 1, 2020); *id.* at Ex. 1038 at 1. Thus, Petitioner’s failure to submit a stipulation binding MVTL, MI, and GM demonstrates that instituting this IPR would result in duplicative efforts, and thus *Fintiv* factors 4 and 5 still weigh in favor of discretionary denial. To the extent Petitioner suggests that the Director has adopted a categorical rule that Petitioner’s stipulation requires declining to exercise discretionary denial, this panel of the Board would not be bound by such an *ultra vires* rule. *See Apple Inc. v. Vidal*, No. 20-CV-06128-EJD, 2024 WL 1382465, *10-13 (N.D. Cal. Mar. 31, 2024) (in upholding *Fintiv* framework, rejecting argument that the Director may, without notice-and-comment rulemaking, “set forth instructions that would require the Board to make specific institution decisions in specific circumstances as a general statement of policy” and holding the Board retains “genuine discretion to evaluate all facts and circumstances relevant to the institution or denial of IPR”).

IV. CONCLUSION

For the above reasons, and as set forth in the POPR, Patent Owner requests that institution of this Petition for *inter partes* review be denied.

Dated: January 21, 2025

Respectfully submitted,

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Certificate of Service 37 C.F.R. § 42.6(e)

The undersigned certifies that on January 21, 2025, I will cause true and correct copies of the foregoing Patent Owner's Pre-Institution Surreply, and all associated exhibits or appendices referred to therein, to be served electronically upon the following attorneys who have consented to service via email. Pet. at 58.

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