

EXHIBIT F

**IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION**

PARKERVISION, INC.,

Plaintiff,

v.

REALTEK SEMICONDUCTOR CORP.,

Defendant.

§
§
§
§
§
§
§
§
§
§
§
§
§
§
§

NO. 6:22-cv-01162-ADA

DEFENDANT’S DISCLOSURE OF EXTRINSIC EVIDENCE

Pursuant to the Parties’ Scheduling Order and the Order Governing Proceedings – Patent Cases, Defendant Realtek Semiconductor Corporation (“Defendant” or “Realtek”) discloses the following extrinsic evidence for U.S. Patent No. 6,049,706 (the “’706 patent”); 6,266,518 (the “’518 patent”); U.S. Patent No. 7,292,835 (the “’835 patent”); and U.S. Patent No. 8,660,513 (the “’513 patent”) (collectively the “Patents-in-Suit”). Copies of the disclosed extrinsic evidence are being concurrently produced today. Realtek reserves the right to supplement and/or amend its disclosures in light of disclosures of extrinsic evidence and/or disclosures of bases for proposed claim constructions, including expert testimony, made by ParkerVision, Inc. (“Plaintiff” or “ParkerVision”) and/or other developments in this case. Realtek notes that the parties are engaged in ongoing discussions in an effort to reach agreed constructions and narrow potential claim construction disputes and reserves the right to supplement and/or amend its disclosures in light of those discussions.

The following disclosure is based upon information currently available to Realtek. To date, Plaintiff has not produced sufficient infringement contentions. Moreover, Realtek's identification of extrinsic evidence is exemplary and not exhaustive. Realtek has not been apprised of the extent to which Plaintiff will rely on extrinsic evidence and reserves the right to rely on additional extrinsic evidence to the extent Plaintiff introduces extrinsic evidence that is inconsistent with the plain and ordinary meaning of the terms from the vantage point of a person of ordinary skill in the art at the time of filing and/or invention of the subject claims.

Realtek does not believe expert testimony is necessary for claim construction. Realtek reserves the right to designate an expert to testify if ParkerVision intends to rely on expert testimony or in response to ParkerVision's identification of extrinsic evidence. Realtek therefore will not designate an expert witness at this time.

Subject to the reservations herein, Realtek discloses the below initial extrinsic evidence for the claim terms identified as requiring construction.

Terms Previously Construed¹

No.	CLAIM TERM	ASSERTED CLAIMS	EXTRINSIC EVIDENCE
1	“under-sampling”	’706: 8, 19	Realtek’s proposal is the same as proposed by Qualcomm in the Qualcomm 719 Case and similar to the construction proposed by Intel in the Intel 562 Case. Realtek adopts Qualcomm’s and Intel’s evidence relied on in the Qualcomm 719 Case and the Intel 562 Case.
2	“harmonic”	’706: 8, 19 ’518: 1, 2	Realtek’s proposal is the same as proposed by Intel in the Intel 562 Case and by LG in the LG

¹ The terms listed or terms similar to those listed have been previously construed in Federal Court and/or the United States Patent and Trademark Office (“PTAB”). Unless otherwise indicated, for purposes of simplifying the claim construction proceedings in this case and without conceding the constructions of these terms, Realtek proposes the parties adopt certain constructions already decided in prior matters involving the asserted and related patents, including but not limited to *Parkervision, Inc. et al v. TCL Technology Group Corp.*, 5:20-cv-01030 (C.D. Cal. May 14, 2020); *Parkervision, Inc. v. Apple Inc. et al*, 3:15-cv-01477 (M.D. Fla. Dc. 14, 2015); *ParkerVision, Inc. v. Buffalo Inc.*, 6:20-cv-01009 (W.D. Tex. Oct. 30, 2020); *ParkerVision, Inc. v. Hisense Co., Ltd. et al*, 6:20-cv-00870 (W.D. Tex. Sept. 24, 2020); *ParkerVision, Inc. v. Hisense Co., Ltd. et al*, 6:21-cv-00562 (W.D. Tex. June 2, 2021); *ParkerVision, Inc. v. Intel Corporation*, 6:20-cv-00108 (W.D. Tex. February 11, 2020) (“Intel 108 Case”); *ParkerVision, Inc. v. Intel Corporation*, 6:20-cv-00562 (W.D. Tex. June 24, 2020) (“Intel 562 Case”); *ParkerVision, Inc. v. LG Electronics Inc.*, 6:21-cv-00520 (W.D. Tex. May 22, 2021) (“LG 520 Case”); *ParkerVision, Inc. v. LG Electronics Inc. et al*, 2:17-cv-05359 (D.N.J. July, 21, 2017); *ParkerVision, Inc. v. MediaTek Inc. et al*, 6:22-cv-01163 (W.D. Tex. Nov. 10, 2022); *ParkerVision, Inc. v. MediaTek Inc. et al*, 6:23-cv-00375 (W.D. Tex. May 16, 2023); *ParkerVision, Inc. v. NXP Semiconductors N.V. et al*, 6:23-cv-00389 (W.D. Tex. May 19, 2023); *ParkerVision, Inc. v. QUALCOMM Incorporated et al*, 6:14-cv-00687 (M.D. Fla. May 2, 2014); *Parkervision, Inc. v. Qualcomm Incorporated*, 3:11-cv-00719 (M.D. Fla. July 20, 2011) (“Qualcomm 719 Case”); *ParkerVision, Inc. v. TCL Industries Holdings Co., Ltd. et al*, 6:20-cv-00945 (W.D. Tex. Oct. 12, 2020); *ParkerVision, Inc. v. TCL Industries Holdings Co., Ltd. et al*, 6:22-cv-01158 (W.D. Tex. Nov. 7, 2022); *ParkerVision, Inc. v. Texas Instruments Incorporated*, 6:23-cv-00384 (W.D. Tex. May 18, 2023); *ParkerVision, Inc. v. ZyXEL Communications Corporation*, 6:20-cv-01010 (W.D. Tex. Oct. 30, 2020); PTAB matters IPR2014-00946, IPR2014-00947, IPR2014-00948, IPR2014-01107, IPR2015-01807, IPR2015-01819, IPR2015-01822, IPR2015-01825, IPR2015-01828, IPR2015-01829, IPR2015-01831, IPR2015-01832, IPR2015-01833, IPR2015-01834, IPR2020-01265, IPR2020-01302, IPR2021-00346, IPR2021-00985 and IPR2022-00246, IPR2021-00990, IPR2022-00245; and any future matters that may bear on the construction of these terms. Realtek reserves the right to appeal these constructions, and further reserves the right to adopt defendants’ or petitioners’ arguments made in any of the aforementioned cases for purposes of appeal.

			520 case. Realtek adopts Intel's and LG's evidence relied on in the Intel 562 Case and the LG 520 case.
3	"said control signal comprises a train of pulses having pulse widths that are established to improve energy transfer from said input signal to said down-converted image"	'706: 18	Realtek's proposal is the same as proposed by LG in the LG 520 Case. Realtek adopts LG's evidence relied on in the LG 520 Case.
4	"switch" / "switches"	'706: 86, 87, 88, 91, 93, 97 '835: 18-20 '513: 19	Realtek's proposal is the same as construed by the Court in the Intel 108 Case and the Intel 562 Case. Realtek adopts the parties' evidence relied on in the Intel 108 Case and the Intel 562 Case.
5	"establishing apertures of said pulses to increase the time that said switch is closed for a purpose of reducing an impedance of said switch"	'706: 87, 97	Realtek's proposal is the same as proposed by LG in the LG 520 Case. Realtek adopts LG's evidence relied on in the LG 520 Case.
6	"widening apertures of said pulses... by a non-negligible amount that tends away from zero time in duration to extend the time that said switch is closed for a purpose of increasing energy transferred from said input signal" / "widening of said apertures... prevents substantial voltage reproduction of said input signal"	'706: 88, 91, 97	Realtek's proposal is the same as proposed by LG in the LG 520 Case. Realtek adopts LG's evidence relied on in the LG 520 Case.

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.