

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**PARKERVISION, INC., A FLORIDA  
CORPORATION,**  
*Plaintiff-Appellant*

v.

**QUALCOMM INCORPORATED, A DELAWARE  
CORPORATION,**  
*Defendant-Cross-Appellant*

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2014-1612, -1655

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Appeals from the United States District Court for the  
Middle District of Florida in No. 3:11-cv-00719-RBD-JRK,  
Judge Roy B. Dalton, Jr.

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**ON PETITION FOR REHEARING**

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Decided: October 2, 2015

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DONALD ROBERT DUNNER, Finnegan, Henderson,  
Farabow, Garrett & Dunner, LLP, Washington, DC, for  
plaintiff-appellant. Also represented by ERIK R. PUKNYS,  
Palo Alto, CA; JOSHUA WRIGHT BUDWIN, KEVIN LEE

BURGESS, McKool Smith, PC, Austin, TX; DOUGLAS AARON CAWLEY, Dallas, TX.

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Before LOURIE, BRYSON, and CHEN, *Circuit Judges*.

BRYSON, *Circuit Judge*.

ParkerVision seeks rehearing of our decision affirming the judgment of non-infringement as a matter of law. We deny the petition.

In the panel opinion, we agreed with the district court that Dr. Prucnal’s admission that the baseband signal is created at the output of the mixer and before the storage capacitor is fatal to ParkerVision’s infringement case. ParkerVision contends that we misinterpreted Dr. Prucnal’s testimony: It now asserts that the signal coming out of the mixer is a “modulated” baseband, i.e., a baseband being carried on the carrier signal, while the real demodulated baseband is generated only when the switches are opened and the storage capacitors are discharged.<sup>1</sup>

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<sup>1</sup> This is ParkerVision’s third attempt to explain away the inconsistencies in Dr. Prucnal’s testimony. In response to Qualcomm’s motion for judgment as a matter of law, ParkerVision raised the “two baseband signals” theory before the district court, as we noted in the panel opinion. *See slip op.* at 9-10. On appeal, ParkerVision disclaimed that theory and replaced it with the “one and the same point” argument, which we rejected in the panel

Further, ParkerVision claims that the accused products would be inoperable under our understanding of the technology, because a “sampling mixer” cannot downconvert without involving storage capacitors. Neither argument is persuasive.

No evidence supports ParkerVision’s newly minted theory that the signal coming out of the double-balanced mixer is not the baseband, but instead is a baseband being “modulated” or “carried” on the carrier signal. As noted in the panel opinion, Dr. Prucnal repeatedly identified the output of the mixer as the baseband, *see, e.g.*, A10944:1-9 (identifying the output of the crisscrossed circuit structure shown on page A6992 to be “the baseband”); A11052:12-13 (identifying the “baseband output” of the mixer which is shown on A6992); A10988:8-14 (agreeing that the “baseband was coming out of the mixer” shown on A6992); nowhere did he describe the mixer output as a baseband being “modulated” or “carried” on a carrier signal. Contrary to ParkerVision’s assertion, Dr. Prucnal admitted that the carrier signal (i.e., the RF signal) has been “eliminated” at the mixer output. *See* A10949:2-11.

ParkerVision seizes upon an exchange during trial in which Qualcomm’s attorney asked Dr. Prucnal to confirm that “the output of the mixer includes the baseband signal.” *See* Pet. at 6 (citing A10943:7-12). At most, that testimony suggests that something other than the baseband exists at the output of the mixer; it does not prove that the carrier signal is part of the output of the mixer,

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opinion. *See* slip op. at 10-12. ParkerVision now concedes that it no longer relies on the “one and the same point” argument. *See* Pet. at 7-8 n.5.

as ParkerVision asserts.<sup>2</sup> As stated above, Dr. Prucnal admitted that the carrier signal has been “eliminated” at that point. Thus, no evidence supports ParkerVision’s “modulated baseband” theory. We accordingly reject its contention that we misinterpreted Dr. Prucnal’s testimony in that regard.

We also disagree with ParkerVision’s second argument that our understanding of the invention would lead to an inoperable device. The gist of the argument is that any downconverting mixer that “samples”—a limitation found to be met by the accused 25% duty-cycle products—must necessarily work with capacitors to generate a baseband signal; in other words, a finding that the “sampling” limitation is met in a mixer means that capacitors must be involved in generating the baseband signal there.

The purported relationship between the “sampling” limitation and the “generating” limitation is raised for the first time in the petition. The district court construed “sampling” to mean “reducing a continuous-time signal to a discrete-time signal,” and “generating” to have its plain and ordinary meaning. Neither of those constructions is disputed on appeal. To the extent ParkerVision now suggests that “sampling” means not only “reducing a continuous-time signal to a discrete time signal,” but also that the sampled energy must be processed by a capacitor, this is a new claim construction argument “raised for the first time after trial” and thus is waived. *See Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 694 (Fed. Cir. 2008).

In any event, the record does not support ParkerVision’s assertion that any mixer that samples must neces-

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<sup>2</sup> In the panel opinion, we noted that unwanted “transmit jamming” signals exist at the mixer output, in addition to the baseband. *See slip op.* at 8.

sarily work with capacitors to generate a baseband signal. ParkerVision cites extensively to the patents at issue to support that proposition. Those citations, however, only establish that capacitors must be involved to generate a baseband signal in ParkerVision's own inventions; they provide no support for the broad assertion that "sampling" always entails generating the baseband through a capacitor.

ParkerVision next faults the court for not resolving the parties' dispute regarding the location of the storage capacitors. *See slip op. at 7 n.4.* According to ParkerVision, should we agree that some capacitors are found inside the accused products' mixers, we would have to conclude that those capacitors are involved in generating the baseband signal. As we explained before, however, even assuming some capacitors are located inside the mixer, Dr. Prucnal admitted that the baseband signal precedes those capacitors as well. *See A10944:1-9* (admitting the baseband signal exists before it reaches the capacitors shown on A6991); Appellant's Reply Br. at 8-9 (referring to capacitors shown on A6991 as "capacitors inside the mixer"); Pet. at 11 (same). Thus, resolving the dispute regarding the location of the capacitors in ParkerVision's favor would not affect Dr. Prucnal's opinion that the baseband exists before it reaches the capacitors and would not prove that the capacitors inside the mixer, if any, are involved in generating the baseband signal.

Finally, ParkerVision contends that we improperly substituted our own credibility determination for the jury's when we concluded that the jury's verdict cannot be sustained based on Dr. Prucnal's testimony. Dr. Prucnal gave two contradictory opinions regarding the role of the storage capacitors in generating the baseband signal, stating on one hand that the mixer-capacitor combination generates the baseband, and on the other hand that the mixer itself creates the baseband. ParkerVision argues that the jury is free to pick and choose from these two

contradictory theories and that the jury's decision in that regard is beyond the scope of our review. We disagree.

It is true that when "there is an evidentiary basis for the jury verdict, the jury is free to discard or disbelieve whatever facts are inconsistent with its conclusion." *Lavender v. Kurn*, 327 U.S. 645, 652 (1946). In fact, the finder of fact is normally free to believe a witness, even if that witness's testimony is impeached and even if the witness's "direct and cross-examination are not entirely consistent." *Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 702 F.3d 1351, 1359 (Fed. Cir. 2012). The verdict, however, must be supported by "substantial evidence," which means "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *See Richardson v. Perales*, 402 U.S. 389, 401 (1971).

When the party with the burden of proof rests its case on a witness's unexplained self-contradictory testimony, the court, in appropriate cases, may conclude that the evidence is insufficient to satisfy that standard. *See Johns Hopkins Univ. v. Datascope Corp.*, 543 F.3d 1342, 1348-49 (Fed. Cir. 2008) (despite expert's opinion that the S-wire in the ProLumen device contacts the lumen in three dimensions, "no reasonable jury could have found that the ProLumen device literally met this limitation based on [the expert's] opinion, given his contradictory testimony that the device only contacts the vessel in two places"); *Doucet v. Diamond M Drilling Co.*, 683 F.2d 886, 892 (5th Cir. 1982) ("the self contradictory testimony of a single witness" did not satisfy the burden of establishing actionable negligence "when that statement is balanced against all the other uncontradicted evidence in this record"); *cf. Cleveland v. Policy Mgmt. Sys. Corp.*, 526 U.S. 795, 806 (1999) ("a party cannot create a genuine issue of fact sufficient to survive summary judgment simply by contradicting his or her own previous sworn statement . . . without explaining the contradiction or at least attempt-

ing to resolve the disparity”). As the district court held, this is such a case.

ParkerVision bore the burden to prove that the storage capacitors in Qualcomm’s devices are involved in generating the baseband signal. Its expert first stated that the capacitors are involved in the generating process, but then admitted on cross-examination that the baseband signal already exists before the current reaches the capacitors. ParkerVision made no attempt to reconcile the two conflicting strands of its expert’s testimony. Nor did it introduce any other evidence that might have supported the expert’s initial statement that the capacitors are involved in generating the baseband signal. Moreover, as the district court noted in its order granting judgment as a matter of law, the expert’s direct and redirect testimony was “notably vague when it came to the generating limitation”; in contrast, his testimony on cross-examination was “unequivocal” that the double balanced mixers create the baseband before the lower frequency signal reaches the capacitors. Based on the totality of the evidence at trial, we agree with the district court that no reasonable finder of fact could come to a confident conclusion that the capacitors have a role in generating the baseband. The district court was therefore correct in concluding that the jury verdict was not supported by substantial evidence.

The petition for rehearing is denied.