

ParkerVision v. Qualcomm
CAFC Case No. 22-1755

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This document is intended to provide an overview summary, in layman’s terms, of several of the key points from ParkerVision’s appellate court briefs for ParkerVision’s patent infringement case against Qualcomm (6:14-cv-0687) filed in May 2014 in the Middle District of Florida - Orlando Division (District Court). For a complete understanding of the facts and arguments in this case, please review the appellate court briefs filed by both parties available on ParkerVision’s website. This summary is qualified in all respects to the facts and arguments as set forth in those briefs at <https://parkervision.com/pvcase-jrk-2/>

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Overview of District Court Case History

This patent infringement case (6:14-cv-0687) was filed in **May 2014** in the Middle District of Florida - Orlando Division (District Court). The case was filed *after* ParkerVision had received a favorable \$172 million jury verdict against Qualcomm in the same courthouse and *prior to* the reversal of the jury verdict in June 2014 by a different District Court judge.

Highlights of the case over the past 9+ years that led to this appeal include:

- Qualcomm filed validity challenges (IPR's at the PTAB) resulting in the case being stayed until 2018 while the challenges were processed in Washington DC at the PTAB & the Appellate Court (CAFC).
- Qualcomm's IPR's were unsuccessful at invalidating some of the challenged claims on the asserted ParkerVision patents and the case was unstayed in January 2019.
- Qualcomm filed a summary judgment motion in **September 2019** to collaterally estop (prohibit) ParkerVision from asserting its RF receiver claims. In January 2020, that motion was denied by the District Court.
- The District Court issued its claim construction (Markman) ruling in **April 2020** on the definition of ten terms that was largely favorable to ParkerVision's interpretation of key terms used in the patent claims.
- The case was set for trial to begin in **December 2020** however, the trial date was moved to mid-2021 due to the coronavirus pandemic.
- In **March 2021**, the court issued an order indicating that a trial date would be delayed until at least the end of 2021, citing backlog due to the pandemic and the high volume of filings in the case.
- The parties filed numerous pre-trial motions during the second half of 2021 and the court set a pre-trial hearing for **January 2022** to hear both parties' oral arguments on outstanding pre-trial motions.
- During the pre-trial hearing as part of a discussion regarding a technical topic on this case, the Judge states, "We all know the jury isn't going to follow 99% of what you all are talking about in this trial. Right? We all know that. They're going to come up with a rough idea of who deserves to win, but the nuances of a patent case, there's no way a jury understands this – which is why this shouldn't be tried to a jury, in my opinion. They will never understand. This should be PTAB 100%. We should be out of it, but that's how it is."
- In **March 2022**, two months after the pre-trial hearing, the District Court issued rulings that were 100% in Qualcomm's favor without a single ruling in ParkerVision's favor. The District

Court order stated, “The clerk is DIRECTED to terminate any pending deadlines and close the file” thus ending the case and eliminating ParkerVision’s ability to present its case to a jury.

Synopsis of Rulings Appealed to the CAFC

In order to accommodate the limited bandwidth at the Appellate Court, ParkerVision limited its appeal to only *three* of the numerous adverse rulings from the District Court. There is one additional ruling that ParkerVision did not directly appeal but that is closely tied to one of the three appealed rulings and therefore is included in the synopsis below.

1) Daubert Ruling Against ParkerVision’s Expert Report

The District Court determined that ParkerVision’s Technical Expert report could not be presented to the jury, striking the Expert’s 3,500 page report as being unreliable, and eliminating any evidence the Expert had on which to base his infringement opinions for a jury to determine infringement. The District Court deemed the Expert report as unreliable because ParkerVision’s Expert did not create his own self-generated simulations of the accused infringing Qualcomm circuits.

ParkerVision’s guidance to the CAFC is that the Expert report is based on much more reliable information than an Expert’s self-generated simulations. The Expert Report is based on the *most reliable source possible*, which is Qualcomm’s own confidential information that was obtained in discovery including Qualcomm’s own product schematics, test reports, circuit simulations, and the deposition testimony under oath of Qualcomm’s engineers admitting how specific circuits operate in Qualcomm’s products. ParkerVision cannot imagine what could be the basis for more reliable information for an Expert to rely upon than Qualcomm’s *own* written confidential information and engineer admissions under oath.

ParkerVision believes the impact of this ruling is that it essentially eliminates the Company’s right to a jury trial because it is precluded from presenting testimony to a jury supporting infringement of ParkerVision patents by Qualcomm.

1A) Summary Judgment of Noninfringement of ParkerVision’s Transmitter Patents

Although not included in the three rulings that were appealed to the CAFC, this summary judgment ruling was based on Qualcomm’s Expert report and the elimination by Daubert ruling of ParkerVision’s Expert Report.

With the striking (prohibiting) of ParkerVision’s Expert report in its Daubert ruling, the District Court determined that the Qualcomm Expert report is un-rebutted as to his opinion of noninfringement and there no longer exists a factual dispute between the parties. This automatically creates a one-sided argument, supported solely by Qualcomm’s Expert, on whether Qualcomm’s transmitters infringe ParkerVision’s patents. By eliminating ParkerVision’s Expert

report in the Daubert motion, the District Court singlehandedly ended any patent infringement argument by ParkerVision with respect to the transmitter patents.

ParkerVision believes the impact of this ruling is that it eliminates a significant portion of the monetary damages ParkerVision seeks from Qualcomm's infringement. If the CAFC overturns the Daubert ruling (discussed in item #1 above), ParkerVision would expect the summary judgment of noninfringement should likewise be overturned.

2) Summary Judgment of Collateral Estoppel Against ParkerVision on its Asserted Patents

The District Court determined that ParkerVision is collaterally estopped (prohibited) from asserting its' RF receiver patents based on having already asserted different RF receiver patents in a prior case. This ruling reversed course on this court's prior Summary Judgment ruling that was favorable to ParkerVision on the same topic, without any mention of the prior ruling.

ParkerVision informed the court that nothing has changed in the claims since the first Summary Judgment motion ruling that determined the patent claims of this case are different than a prior case, and that ParkerVision's Expert filed, with the first Summary Judgment motion, a detailed explanation that shows the claims cover different ParkerVision inventions than the prior case.

ParkerVision also informed the court that there is no new analysis that Qualcomm filed in its second motion that showed that the claims are the same as in the prior case. Qualcomm merely adds a chart created by their Expert with no analysis of the chart except for a conclusory statement that the claims are the same. ParkerVision further points out that Qualcomm relies on creating its *own* definitions of claim terms that were never construed (defined) by the court to mean something different than their ordinary meaning as used in the context of the patent. The detailed analysis of ParkerVision's Expert filed with the first Summary Judgment is in disagreement with Qualcomm's Expert, although the District Court never mentions the first ruling favorable to ParkerVision.

ParkerVision's guidance to the CAFC is that it is the Judge's responsibility to determine the meaning of claims and claim terms. By law, claim construction is not a decision of an Expert. There is nothing that the Judge construed in claim construction that would indicate the different patents now cover the same invention.

ParkerVision believes the impact of this ruling is that it eliminates a significant portion of the monetary damages ParkerVision seeks from Qualcomm's infringement.

3) Summary Judgment of Collateral Estoppel Against ParkerVision on Validity of its '940 Patent Claims

The District Court determined that ParkerVision is collaterally estopped (prohibited) from defending the validity of its '940 Patent using certain arguments that were presented at the PTAB and CAFC despite ParkerVision being the prevailing party.

ParkerVision's guidance to the CAFC is that the law is clear that the non-prevailing party at the PTAB and CAFC of a validity challenge (in this case Qualcomm) is collaterally estopped from using the same basis to challenge the validity of those patent claims again, such as at a jury trial. The law is clear that the challenger had their chance and lost. It is not clear why there would be collateral estoppel against the prevailing party, ParkerVision, when the non-prevailing party should be prohibited from even challenging validity once again at a jury trial.

ParkerVision believes the impact of this ruling is unclear as Qualcomm, by law, should not have the right to yet another validity challenge on the same basis. ParkerVision filed its own motion for collateral estoppel to prevent Qualcomm from the same validity challenge in court, but the District Court did not rule on ParkerVision's motion.

Each of these rulings is discussed in more detail below including background information pertaining to the ruling as well as the position taken by ParkerVision and the District Court.

1) Daubert Ruling Against ParkerVision's Expert Report

The District Court sided with Qualcomm's motion to strike ParkerVision's Expert report as being unreliable. The basis for this determination is that ParkerVision's Expert did not create his own self-generated simulations to determine how the circuits in Qualcomm's accused products work and therefore the court determined the Expert report is based on unreliable information.

Early in the case, and well before completion of discovery and depositions, ParkerVision requested the Court order Qualcomm to provide ParkerVision access to Qualcomm's design computers in case the Expert wanted to perform his own simulations of Qualcomm products as well as to have access to the native information of Qualcomm's schematics, not just PDF copies.

ParkerVision informed the Court that access was necessary if ParkerVision needed to perform its own simulations of how Qualcomm products operate. Early in the case it is unknown what information will be obtained from discovery.

Qualcomm responded by telling the Court that ParkerVision did not require access to do its own simulations or need the native information on its circuit schematics because this is not the only way an Expert can determine how Qualcomm products operate. Qualcomm's position was that there are many ways to determine product operation, including information that ParkerVision can obtain from Qualcomm in discovery including Qualcomm's own schematics, test reports, simulations, and by taking depositions of Qualcomm product engineers.¹

The court denied ParkerVision access to Qualcomm's native schematic information saying that Qualcomm could produce PDF files to ParkerVision.

Fortunately for ParkerVision, discovery produced Qualcomm's own confidential information on which to base its Expert report. Experts in the field consider this to be the most reliable basis for determining how products operate to support an Expert's opinion on patent infringement.² Obtaining this information eliminated the need for ParkerVision's Expert to perform self-generated simulations.

¹ As Qualcomm's counsel put it in this case, "[o]nce you have the design documents and those admissions, there's nothing left really to simulate." Appx4912. "End of story."

² As Qualcomm's counsel assured the district court, "[s]chematics and technical documents are the type of documents ... that experts in the field would reasonably consider in evaluating the operation of a circuit. That's undisputed."

In pre-trial motions Qualcomm filed a Daubert motion, contradicting what it told the court years earlier at the start of this case, stating that *only* self-generated simulations by ParkerVision's Expert are a reliable source of information to support ParkerVision's Expert report and asked the District Court to strike ParkerVision's entire Expert report from being used in this case.

In both its briefs and its oral argument, ParkerVision informed the District Court that its Expert report is based on information significantly more reliable than an Expert creating his own simulations.

ParkerVision's Expert report is based on Qualcomm's own confidential information that was directly obtained in discovery and includes Qualcomm's own:

- Confidential circuit simulations, confidential test reports, confidential circuit schematics
- testimony by Qualcomm engineers under oath admitting how the circuits work in the accused products.

ParkerVision informed the District Court that Qualcomm *itself* represented to a different Federal Court in a prior case that self-generated simulations by ParkerVision were not accurate and should not be viewed as a reliable source of information.

ParkerVision also informed the District Court that Qualcomm told another Federal Court that simulations are not necessary when referring to the very same circuits as in this case; stating that, "persons of ordinary skill in the art"—let alone experts—can discern the presence of "a gate or switch" based on review of such documents." The documents Qualcomm refers to are simply schematics.

The Court then ruled in favor of Qualcomm saying that ParkerVision failed to create its own simulations and striking the Expert report from use in this case.

The District Court's ruling indicates that *only* self-generated simulations can be the basis for a reliable Expert report and that since ParkerVision relied upon Qualcomm's own confidential information, the ParkerVision's Expert report is dismissed and not usable in this case because it is unreliable.³

ParkerVision has been unable to find *any* prior law that supports the notion that creating one's own simulations is the only acceptable method of supporting Expert opinion of infringement or why

³ The district court recognized, quoting from a circuit design textbook, that simulations can be "necessary to accurately predict detailed circuit behavior." Appx35 (citing Appx40083). "On the other hand," as the textbook further explains, "circuit simulation is notoriously prone to errors: garbage in, garbage out (GIGO)." Appx40083. "The simulator accepts the model of reality provided by" the person generating the simulation—that model is called a test bench—and "it is very easy to create a model that is inaccurate or incomplete." Appx40083. **A simulation is less likely to be error-prone, therefore, and more likely to be accurate and complete, if it is generated by "the designer" of the circuit.**

confidential information obtained directly from a defendant would be deemed unreliable to support Expert opinion. ⁴

Qualcomm guided the District Court that even if ParkerVision did obtain Qualcomm's own confidential information that it doesn't matter because the Expert did not rely on this information in his report. That is simply not true and is contravened by ParkerVision explicitly quoting from the Expert Report exactly where the information relied upon came from which is directly from Qualcomm. ⁵

Qualcomm itself has all 3,500 pages of ParkerVision's Expert Report that includes volumes of pages of Qualcomm's own confidential information supporting the conclusions in the report as well as transcripts of Qualcomm's engineers' testimony under deposition.

Impact of the Ruling:

ParkerVision believes the impact of this ruling is that it essentially eliminates the Company's right to a jury trial because it is precluded from presenting testimony to a jury supporting infringement of ParkerVision patents by Qualcomm. Without an Expert report, ParkerVision's Expert has no evidence and cannot testify to a jury on how Qualcomm products infringe ParkerVision patents. By eliminating the evidence for a jury trial, the Court single-handedly ends the case and cancels a jury trial. This is further supported by the District Court ordering the termination of all further deadlines in the case and closing the case file.

2) Summary Judgment of Collateral Estoppel Against ParkerVision on its Asserted Patents

Qualcomm filed a motion for Summary Judgment with the District Court in 2019 accusing ParkerVision of litigating patents covering the same ParkerVision inventions that were found not to be infringed by Qualcomm products in 2015 by the CAFC (these patent claims in the prior case are referred to throughout as "PV1").

Qualcomm asked for collateral estoppel, prohibiting ParkerVision from asserting its receiver patents in this patent infringement case. Qualcomm's summary judgment motion was *denied* in 2020 by the District Court when it determined that Qualcomm failed to meet its burden of proof that the patents in this infringement case (referred to as "PV2") cover the same inventions as the patents in PV1.

Qualcomm filed a second summary judgment motion in 2021 and this same court, without mention of its prior opposite ruling on the same topic, found in favor of Qualcomm by determining that the

⁴ Another Qualcomm witness, its senior director of engineering, Case: 22-1755 Document: 17 Page: 64 Filed: 08/18/2022 52 testified under oath that the evidence ParkerVision's expert relied upon would have been sufficient even without the admission. Appx5057-5058.

⁵ For harmonically rich signal, ParkerVision's expert Case: 22-1755 Document: 17 Page: 63 Filed: 08/18/2022 51 considered, among other admittedly reliable evidence, Qualcomm's "design review documents, testing review documents, schematics, and [Qualcomm's] simulations in conjunction with mathematical analysis."

patent claims in this infringement case cover the same inventions as the patent claims in PV1. The District Court provided conclusory statements that because Qualcomm's Expert says the claims of PV1 and PV2 patents mean the same thing, without any analysis by Qualcomm's Expert or the District Court, that this now is the basis for estoppel.

By law, claim construction is not a decision of an Expert. There is nothing that the District Court construed in claim construction that would indicate the different patents now cover the same invention.

If the Judge wanted to turn to Expert opinion, then he should have also considered ParkerVision's Expert report used in the first Summary Judgment that was ruled in favor of ParkerVision. That report details why the PV2 claims are different and in fact do not contain the same "generating" limitation that was determinative in PV1 of non-infringement by the CAFC.

For historical background with regard to the patents in PV1 and how they differ from the patents in this case, see Appendix A.

Impact of the Ruling:

ParkerVision believes the impact of this ruling is that it eliminates a significant portion of the monetary damages ParkerVision seeks from Qualcomm's infringement.

3) Summary Judgment for Collateral Estoppel Against ParkerVision on Validity of its '940 Patent Claims

Qualcomm filed *Inter Partes Review* (IPR) validity challenges against ParkerVision's '940 RF transmitter patent claims in 2015 at the US Patent Office Patent Trial and Appeal Board (PTAB).

Ultimately the PTAB decided that some of the '940 claims were determined to be invalid while other claims were determined not to be invalid. In 2018, the Appellate Court (CAFC) concurred with the PTAB's ruling. ParkerVision is only asserting infringement using claims of the '940 patent that were found *not* to be invalid.

Qualcomm filed for collateral estoppel to prevent ParkerVision from using certain arguments at a jury trial that were used by ParkerVision during the IPR process to defend the validity of its '940 patent claims and this District Court granted Qualcomm's motion for collateral estoppel.

The law is clear that when a challenger loses a validity challenge to patent claims at both the PTAB and CAFC that collateral estoppel applies to the loser, thus preventing them from getting a "do-over" in court using the same validity challenges.

Collateral estoppel in this situation applies to the loser, Qualcomm, from making the same validity challenges to the '940 patent claims at a jury trial.

It is unclear why the court would grant collateral estoppel against the prevailing party, ParkerVision, when there should not be a need for ParkerVision to defend validity of patent claims already won at the PTAB and CAFC. The loser should be estopped from making the same challenges again at trial.

ParkerVision filed its own motion for collateral estoppel requesting the District Court prohibit Qualcomm from challenging once again the same '940 patent claims using the same invalidity theories. The District Court never ruled on ParkerVision's motion.

Impact of this Ruling:

ParkerVision believes the impact of this ruling is unclear as Qualcomm, by law, should not have the right to yet another validity challenge on the same basis. ParkerVision filed its own motion for collateral estoppel to prevent Qualcomm from the same validity challenge in court, but the District Court did not rule on ParkerVision's motion. The Company believes this ruling infers that the District Court will allow Qualcomm yet another validity challenge against the '940 patent claims on the same basis that Qualcomm already lost, even though the law is clear that Qualcomm does not get another challenge at trial using the same basis for invalidity that it lost at both the PTAB and CAFC.

Appendix A

This appendix provides historical background on the patent claims in the PV1 case and how they differ from the patent claims in this case (PV2)

Background of Prior District Court Case:

Although ParkerVision won a jury award of infringement against Qualcomm in 2013, a District Court reversed the verdict in 2014 stating that no reasonable jury could have found the accused products infringed.

Qualcomm claimed that the way the wireless receiver in its products works is by using a “double-balanced mixer”, which is comprised *only of switches*, and that it is those switches alone that generate the down-converted, or baseband signal.

Because ParkerVision’s patents in that case were determined to require that both switches and capacitors generate the signal, Qualcomm contended that it did not infringe ParkerVision’s patents.

Qualcomm further claimed that because ParkerVision’s Expert in the 2013 trial conceded that the double-balanced mixer switches alone in Qualcomm’s products generate the baseband its products do not infringe the ParkerVision’s patents asserted in that case.

In 2014 ParkerVision appealed the District Court ruling to the CAFC.

CAFC Affirmation of District Court Case:

The CAFC stated, “Qualcomm contends that the mixer alone converts the carrier signal into the baseband signal and that the capacitors identified by ParkerVision do not generate the baseband signal.” And “Because the capacitors are not involved in the down-converting function, the baseband signal necessarily comes from ‘somewhere other than...energy that has been stored in the capacitor’.”

The CAFC further stated, “Dr. Prucnal’s admission (*ParkerVision’s Expert*) that the double balanced mixer creates the baseband signal before that signal reaches the identified capacitors means that Qualcomm products obtained the baseband signal from “somewhere other than” energy stored in the capacitors precluding a finding of infringement.”

The CFAC ruling indicated:

- 1) That the patents ParkerVision asserted in PV1 are not infringed if “the double-balanced mixer” (switches alone) creates the baseband signal before the signal reaches the identified capacitors’, and
- 2) “That a baseband current already exists before the current from the carrier signal reaches the capacitors shows that the baseband signal (in Qualcomm’s products) is not generated in the way

ParkerVision asserts.....no reasonable jury could have found the accused products satisfy the ‘generating limitation’ under ParkerVision’s infringement theory.”

Downconversion to baseband using both a switch and a capacitor is referred to as “*the generating limitation*” of the PV1 patents.

The Patents Asserted in the Current Case (PV2):

ParkerVision asserted different receiver patents in this case (PV2) that cover different embodiments of its RF energy sampling technology.

Unlike the PV1 patents, the patents ParkerVision asserted in PV2 specifically *require that switches alone generate the baseband* (down-converted) signal. The PV2 patents do not include the same “generating limitation” as the PV1 patents.

The PV2 patents cover how in an energy sampling down-converter the baseband signal needs to be formed (shaped) at a load after the baseband has already been generated by the switches themselves, otherwise there will be unwanted gaps in the baseband signal that will impair the desired result.

ParkerVision’s Expert Report details exactly how the baseband is created by the switches themselves and then how a capacitor and a low impedance load shapes the baseband so that it behaves properly as a continuous signal outputted at the load (the load being the next circuit) in a system that uses sampling to down-convert.

None of this is covered in any PV1 patent - not the switches creating baseband by themselves or that the resultant down-converted baseband which is the result of energy sampling can be formed (shaped) at a load.

Qualcomm contends that there is no difference between PV1 and PV2 patents and attempts to change the plain meaning of the words in the claims, completely ignoring the teaching of the patent itself, and ParkerVision’s Expert Report which follows the patent’s teaching and the plain language of the patent, to clearly show that the patent teaches *switches alone* generate the baseband signal and the shaping (forming) function performed thereafter at a load.

There is no generating limitation in the PV2 patents as there was in the PV1 patents, although Qualcomm attempts to insert that limitation into the PV2 patents.

Simplified view of PV1 vs PV2 patents:

PV1 patents: Sampling switch + Capacitor = generate lower frequency (baseband) signal

Qualcomm products: Sampling switch (alone) = generate lower frequency (baseband) signal

Non-infringement determined in PV 1 by the CAFC. Since Qualcomm products do not use a capacitor to generate a lower frequency (baseband) signal it was determined there is no infringement of ParkerVision's PV1 patents.

PV2 patents: Sampling switch (alone) = generates lower frequency (baseband) signal

+

With additional steps of "forming" (shaping) the baseband signal at a load that has already been downconverted by a sampling switch. *(Note: energy sampling results in unwanted gaps in the down-converted [baseband] signal after the sampling switch which is resolved by these additional claim steps)*