

UNITED STATES DISTRICT COURT  
MIDDLE DISTRICT OF FLORIDA  
ORLANDO DIVISION

PARKERVISION, INC.,

*Plaintiff,*

v.

QUALCOMM INCORPORATED,  
QUALCOMM Atheros, INC.,  
HTC CORPORATION, AND HTC AMERICA, INC.,

*Defendants.*

Case No. 6:14-cv-687-Orl-PBG-LRH

**DEFENDANTS' REPLY IN SUPPORT OF  
MOTION FOR PARTIAL SUMMARY JUDGMENT  
OF NONINFRINGEMENT BASED ON  
COLLATERAL ESTOPPEL FROM *PARKERVISION I***

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## I. INTRODUCTION

ParkerVision's brief confirms that summary judgment of noninfringement is appropriate. It is undisputed that ParkerVision had a full and fair opportunity to litigate *ParkerVision I*, and final judgment of noninfringement was entered in Qualcomm's favor. It is undisputed that all of the receiver patent claims here, just like the receiver patent claims in *ParkerVision I*, require an energy storage device to down-convert. And, it is undisputed that all of the accused Qualcomm products use double-balanced mixers to down-convert, not an energy storage device. Because there are no genuine disputes of material fact, summary judgment of noninfringement is required. The Court should dismiss the two receiver patents ('907 and '177), thereby narrowing the case to two transmitter patents ('372 and '940).

## II. ARGUMENT

### A. The Court Should Grant Defendants' Motion for Summary Judgment of Noninfringement of the Receiver Patent Claims.

#### 1. ParkerVision does not dispute that it had a full and fair opportunity to litigate *ParkerVision I*, and Qualcomm's double-balanced mixers were a critical and necessary part of the *ParkerVision I* final judgment.

Two of the four collateral estoppel factors are clearly undisputed. (Opp. at 6.) It is undisputed that ParkerVision had a full and fair opportunity to litigate noninfringement of nineteen Qualcomm product designs, including Magellan and Odyssey, in *ParkerVision I*. (Mot. at 17-18, 5; Opp. at 4.) It is further undisputed that among the critical and necessary issues litigated and resolved in *ParkerVision I* was the Federal Circuit's finding that "the baseband current is created by the double-balanced mixer [in Qualcomm's products] before the current reaches the capacitors". (Opp. at 4 (quoting 621 F. App'x at 1016); Mot. at 7.)

Defendants' motion also identified eight paragraphs of undisputed material facts related to *ParkerVision I* and this case. (Mot. at 2-3 (Statement of Facts ("SOF") Nos. 1-8).) ParkerVision did not respond to each numbered paragraph, failing to identify "pinpoint" citations to evidence disputing Defendants' facts. (Cf. Dkt. 309 (order requiring respondent to "specify the material facts as to which the opposing party contends there exists a genuine dispute").) Because ParkerVision waived disputing Defendants' facts, the eight numbered paragraphs should be deemed admitted.

**2. The asserted receiver patent claims undisputedly rely on an energy storage device to down-convert.**

All of ParkerVision's asserted receiver patent claims undisputedly require an *energy storage device* to down-convert. (SOF Nos. 6-7; Mot. 23-25.) The asserted '907 claims all require "providing ... energy from the *energy storage device*" and the same "energy [from the energy storage device] provided to the load *forms a down-converted signal*." (E.g., '907, claims 1, 13 (emphasis added), Gardner Ex. 15.) Likewise, the asserted '177 claims all require down-conversion using a "matched filtering/correlating module." (E.g., '177, claims 1, 14, Gardner Ex. 16.) The "*matched filtering/correlating module down-converts*" using energy stored in the capacitor (*i.e.*, the energy storage device) to "generate the downconverted signal." ('177, claim 1 (emphasis added), Gardner Ex. 16; Gardner Ex. 23 (Cook Depo. 201:4-22 ('177 inventor testimony)); Dkt. 324 at 15; Dkt. 317 at 27 (ParkerVision stating the "load is connected across the storage device," shown as "capacitor C").) ParkerVision also concedes that everyone understood the *ParkerVision I* claims to require the "energy transferred to the storage devices (capacitors) ... to bring about the down-converted (basedband [sic]) signal".

(Opp. at 10; Mot. at 22-25.) All of the asserted receiver patent claims in both *ParkerVision I* and this case undisputedly require an energy storage device to down-convert.

**3. The accused Qualcomm products do not use an energy storage device to down-convert.**

If even “one claim limitation is missing or not met, there is no literal infringement.” *MicroStrategy v. Bus. Objects*, 429 F.3d 1344, 1352-53 (Fed. Cir. 2005) (affirming summary judgment of noninfringement); *Aspex Eyewear v. Zenni Optical*, 713 F.3d 1377, 1381-82 (Fed. Cir. 2013) (summary judgment of noninfringement based on collateral estoppel). Because Qualcomm’s products **do not use** an energy storage device to down-convert, Qualcomm’s products cannot possibly infringe the asserted receiver patent claims. (SOF Nos. 1, 4-8; Mot. 13-16, 19-25 (evidence); Gardner Ex. 17 (RX-4101.15C at Q/A 52); Gardner Ex. 18 (RX-4102.2C at Q/A 15).) Summary judgment of noninfringement is required.

First, ParkerVision’s theory **undisputedly** relies on the **same Magellan design** found non-infringing in *ParkerVision I*. (SOF No. 1; Mot. at 2, 15; Gardner Ex. 8 (contentions: annotations for only Magellan); Gardner Ex. 9 (same).) Magellan, Odyssey, as well as seventeen other Qualcomm designs, were fully litigated and found non-infringing in *ParkerVision I*. (SOF Nos. 3-5; *ParkerVision*, 621 F. App’x at 1012-17; *ParkerVision v. Qualcomm*, 27 F. Supp. 3d 1266, 1271 (M.D. Fla. 2014); Mot. at 5-7.) *ParkerVision I* established that the accused Qualcomm products “do not require an electric current from the carrier signal to go in and out of the storage capacitors [*i.e.*, the claimed energy “storage module”] in order to create the baseband signal; instead, the baseband current is created by the **double-balanced mixer** before the current reaches the capacitors.” 621 F. App’x at 1016 (emphasis added), 1011.

*Second, all* of the accused Qualcomm products in this case undisputedly use a current-mode *double-balanced mixer*, not an energy storage device, to down-convert. (*E.g.*, 621 F. App'x at 1016; Gardner Ex. 17 (RX-4101.15C at Q/A 52, RX-4101.17C at Q/A 63; RX-4101.27C at Q/A 106), Gardner Ex. 18 (RX-4102.2C at Q/A 15, RX-4102.19C at Q/A 105); Mot. at 19-22, 13-16.) Qualcomm submitted *unrebutted* evidence from Dr. Razavi, Qualcomm's expert, and Qualcomm engineer, James Jaffee, both of whom ParkerVision deposited (under oath) in the ITC Action. (Gardner Exs. 18-19; Gardner Decl. ¶ 2.)

*Third*, ParkerVision has conceded that the “mixer cores of the [Flying Dutchman (1625L)] RF Chip are the *same mixer cores* as those included in Qualcomm's Odyssey and Magellan RF Chips” from *ParkerVision I*. (Gardner Ex. 10 at 41 (emphasis added; also citing Mr. Jaffee's deposition testimony); Mot. at 15, 21; Gardner Ex. 18 (RX-4102 at 4C).) ParkerVision's opposition brief falsely suggests that it has not had an opportunity to analyze the Flying Dutchman design. (Opp. at 19-20 (“no schematics”).) ParkerVision's complaint is astonishing, ironic, and a hollow delay tactic.<sup>1</sup> Not only has ParkerVision had access to Flying Dutchman schematics since 2015, but ParkerVision's own infringement contentions in this case cite “FlyingDutchman [sic]” schematics. (*E.g.*, Gardner Ex. 8 at 2 (citing “QSC1PVII0000140, QSC1PVII0000141, QSC1PVII0000144, QSC1PVII0000148”), 16, 53, 69; Gardner Ex. 9 at 3; Dkt. 132-8, Greaves Decl. ¶ 13 (ParkerVision's consultant testifying that he reviewed “Flying Dutchman” schematics in this case); *see also, e.g.*, Gardner Ex. 8 at 1 (citing “WTR1625L” teardown report), 43 (same), 89 (same).)

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<sup>1</sup> It was *ParkerVision* who asked the Court to order Qualcomm to file its motion “as soon as reasonably possible,” proposing a September 2019 deadline. (Dkt. 300 at 2, 3.)

ParkerVision and Qualcomm also fully litigated through fact and expert discovery the Flying Dutchman (and other later product designs) in ParkerVision’s ITC Action. (Mot. at 14-15, 20-22, 7-8.) The parties exchanged discovery, schematics, expert reports, and witness statements. ParkerVision’s expert, Dr. Allen, even inspected Qualcomm’s schematics in the ITC Action, and recently spent another *three days* (Sept. 30-Oct. 2, 2019) inspecting Qualcomm’s schematics for the Jacksonville Action. (Gardner Decl. ¶ 3.) The Court should reject ParkerVision’s unsubstantiated request to delay entry of noninfringement. Because Qualcomm *does not use* an energy storage device to down-convert, Qualcomm cannot infringe the asserted receiver claims. (Mot. at 19-22 (citing evidence).)

**B. None of ParkerVision’s Arguments Defeat Summary Judgment.**

ParkerVision lodges three other arguments: (1) the ‘907 and ‘177 patents allegedly “do not raise the same noninfringement issue” because they do not recite “generating” (Opp. at 6, 10); (2) the ‘907 and ‘177 patents are “different,” because they focus on “post-down-conversion processing” (Opp. at 15-16); and (3) ParkerVision did not file terminal disclaimers (Opp. at 11).<sup>2</sup> Each argument is unavailing.<sup>3</sup>

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<sup>2</sup> ParkerVision’s cited case law is distinguishable. In *Brain Life* and *RF Delaware*, the finality element was not satisfied. *Brain Life v. Elekta*, 746 F.3d 1045, 1055 (Fed. Cir. 2014); *RF Delaware v. Pac. Keystone Techs.*, 326 F.3d 1255, 1261 (Fed. Cir. 2003). In *SpeedTrack*, the movant applied the wrong standard, arguing the similarities (and differences) between the products were irrelevant. *SpeedTrack v. Amazon.com*, No. 09-4479, 2017 WL 5598679, at \*5 (N.D. Cal. Nov. 21, 2017). In *AK Steel*, the evidence showed the products were materially different. *ArcelorMittal Atlantique et Lorraine v. AK Steel*, 908 F.3d 1267, 1274-76 (Fed. Cir. 2018). And, *Nichia* involved invalidity, where new limitations that were not previously litigated to final judgment raised new questions of fact regarding the prior art. *Nichia v. VIZIO*, No. 16-545, 2018 WL 1942413, at \*8 (C.D. Cal. Mar. 29, 2018).

<sup>3</sup> ParkerVision also erroneously suggests that the Court should ignore ParkerVision’s statements in its prior motion to sever and stay, because ParkerVision has now dropped the receiver patents where collateral estoppel applies. (Opp. at 5.) ParkerVision conveniently

### 1. ParkerVision mistakenly focuses on the word “generating.”

ParkerVision’s main argument is that because the asserted ‘907 and ‘177 claims do not explicitly recite “generating,” a “jury must decide” whether the asserted claims are infringed. (Opp. at 10, 9, 14.) ParkerVision’s singular focus on the word “generating” is misplaced. Patents may use “slightly different language to describe substantially the same invention”. *E.g., Ohio Willow Wood v. Alps S.*, 735 F.3d 1333, 1342-43 (Fed. Cir. 2013) (claims reciting a “tube sock-shaped covering” an “amputation stump being a residual limb” and “fabric in the shape of a tube sock” were of the same scope as claims reciting a “cushion liner for enclosing an amputation stump, said liner comprising a fabric covering having an open end for introduction of said stump and a closed end opposite said open end”); *Molinaro v. Fannon/Courier*, 745 F.2d 651, 655 (Fed. Cir. 1984) (holding that it was “indisputable that the claim asserted here is the same as that the scope of which was determined in earlier litigation where the receivers accused here were held not to infringe that claim”); *Aspex Eyewear*, 713 F.3d at 1379 (finding “no material difference” between the claims in the first and second suit); *Curtiss-Wright Flow Control v. Velan*, 438 F.3d 1374, 1380 (Fed. Cir. 2006) (stating “two claims with different terminology can define the exact same subject matter”).<sup>4</sup>

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ignores that it moved to sever and stay *all of the receiver claims in this case*, including the ‘907 and ‘177 claims, because *all of them would be impacted by ParkerVision I*. (Dkt. 218 at 5.)

<sup>4</sup> ParkerVision’s reliance on *Comair Rotron* is misplaced. (Opp. at 7.) Collateral estoppel did not apply there, because the discussion of non-infringing substitute fans in the marketplace, a damages issue, was “not essential” to the previous judgment. *Comair Rotron v. Nippon Densan*, 49 F.3d 1535, 1538 (Fed. Cir. 1995). Here, it is undisputed that the Federal Circuit’s decision regarding the accused Qualcomm’s products and Qualcomm’s double-balanced mixers were essential to the *ParkerVision I* noninfringement decision.

The legal issue the Court must decide is whether the asserted receiver patent claims require using an energy storage device to down-convert. *E.g.*, *O2 Micro Int'l v. Beyond Innovation Tech.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (“the court, not the jury, must resolve” claim construction disputes). The answer is yes. Just like in *ParkerVision I* where the ‘551 claims required a “storage module” to down-convert, the asserted ‘907 claims require an “energy storage device” to down-convert, and the asserted ‘177 claims require a storage module that is part of a “matched filtering/correlating module” to down-convert. (*E.g.*, 621 F. App’x at 1011; ‘551, claim 23, Gardner Ex. 11; ‘907, claim 1, Gardner Ex. 15; ‘177, claim 1, Gardner Ex. 16.) Whether the claims explicitly recite the words “is generated from” (or “generating”) (‘551, claim 23), “forms” (‘907, claim 1), or “outputs” (‘177, claim 1) **does not change** the fundamental fact that it is the **energy storage device** that down-converts in all of ParkerVision’s asserted receiver patent claims. (Mot. at 4-5, 22-25; *see also* Gardner Ex. 4 at 92 (OUII Staff finding “no material difference” between “derive” and “generate” in ParkerVision’s receiver patents, and stating collateral estoppel applies).)

**2. ParkerVision points to parts of the specification that support noninfringement.**

Because ParkerVision cannot contest the undisputed facts material to Defendants’ motion—that is, the claims require an energy storage device to down-convert, and Qualcomm’s products do not use an energy storage device to down-convert—ParkerVision tries to rebrand its patents as “post-down-conversion processing.” (Opp. at 16.)

ParkerVision relies on Figures 126A and 126E of the ‘907 patent. (Opp. at 15, 16.) Figure 126A shows a voltage-mode switch module. (‘907, 10:1-14; ‘907, Fig. 126A (voltage signals), Gardner Ex. 15.) The ‘907 patent states “Capacitor C1 is the **storage element** for the

input signal being sampled by FETs 12602-12640” in Figure 126A. (‘907, 111:17-19 (emphasis added), Gardner Ex. 15.) “FIG. 126E illustrates a down-converted signal at point 12644 of FIG. 126A, which is generated by the down-conversion process” using the claimed “energy storage device.” (‘907, 111:31-33;<sup>5</sup> ‘907, claim 1.) Therefore, contrary to ParkerVision’s argument, Figures 126A and 126E do not show that the ‘907 claims are materially different from the *ParkerVision I* claims. Instead, just like the *ParkerVision I* patents, Figures 126A and 126E show voltage-mode devices for down-conversion. And, just like in *ParkerVision I*, the ‘907 claims are directed to down-converting using an “energy storage device” followed by a load. (Mot. at 4, 11.)<sup>6</sup>

Moreover, even if Figures 126A and 126E did exemplify ParkerVision’s new post-down-conversion theory, the result would simply be another ground for noninfringement. *ParkerVision I* established that Qualcomm’s products are “undisputedly” “not ‘voltage-mode’ products, but are ‘current-mode’ products, in which the baseband signal is represented by variations in current, not by variations in voltage.” (621 F. Appx at 1015; *see also* Gardner Ex. 18 (RX-4102C.19C at Q/A 105, RX-4102C.21C at Q/A 116 (testifying Qualcomm’s products are current-mode)); Gardner Ex. 17 (RX-4101C.20C at Q/A76, RX-4101.27C at Q/A 106).) It is uncontroverted that Qualcomm *does not use* a voltage-mode switch module like the one shown in Figure 126A. (‘907, Fig. 126A (voltage signals); 621 F. Appx at 1015.) Nor does Qualcomm use a capacitor to store energy to down-convert. 627 F. App’x at 924

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<sup>5</sup> The units in the graph in Figure 126E are “mV,” which stands for milliVolts, a unit of voltage.

<sup>6</sup> ParkerVision also cites Figures 57E and 57F, but those same figures with the same description appear in the *ParkerVision I* patents. (*E.g., compare* Opp. at 15 with Gardner Ex. 11, ‘551, Figs. 57E, 57F, 85:59-86:2.)

(“no reasonable finder of fact could come to a confident conclusion that the capacitors have a role in generating the baseband”). Summary judgment of noninfringement is required.

### 3. ParkerVision’s terminal disclaimer argument is a red herring.

Rather than address the common claim scope and collateral estoppel issue, ParkerVision places importance on the lack of a “terminal disclaimer”. (Opp. at 11-12.) But, ParkerVision’s failure to file terminal disclaimers does not mean the *Patent Office* analyzed and concluded that the asserted ‘907 and ‘177 claims are patentably distinct from the *ParkerVision I* claims. It would be improper for this Court to make ParkerVision’s suggested inference, especially since the fact is neither relevant nor material to Defendants’ motion.<sup>7</sup> As explained above, the issues here are whether the asserted receiver claims require an energy storage device to down-convert, and whether the accused products use an energy storage device to down-convert, not whether there was a terminal disclaimer. *Cf. SimpleAir v. Google*, 884 F.3d 1160, 1169 (Fed. Cir. 2018) (district court erroneously presumed the importance of a terminal disclaimer, rather than analyze the claims).

### 4. ParkerVision’s expert declaration cannot save its case.

Desperate to avoid noninfringement, ParkerVision offers a declaration from its expert, Dr. Allen. (Dkt. 327-1; *Sitrick v. Dreamworks*, 516 F.3d 993, 1001 (Fed. Cir. 2008) (“Conclusory expert assertions cannot raise triable issues of material fact on summary judgment.”).) Similar to ParkerVision’s tactics in *ParkerVision I* and ParkerVision’s ITC

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<sup>7</sup> ParkerVision also submits no actual evidence from the ‘907 and ‘177 file histories. (*Cf. Burke Decl.* ¶ 5 (submitting only conclusory statements from ParkerVision’s attorney).) *Abbvie* also does not support ParkerVision’s argument. (Opp. at 11-12.) In *Abbvie*, the absence of a terminal disclaimer did not affect the court’s inquiry into invalidity. *Abbvie v. Mathilda & Terence Kennedy Inst. of Rheumatology Tr.*, 764 F.3d 1366, 1373 (Fed. Cir. 2014).

Action, ParkerVision tries to use Dr. Allen to explain away the inconsistencies in ParkerVision's case. (*E.g.*, 627 F. App'x at 922, n.1 (stating "[t]his is ParkerVision's third attempt to explain away the inconsistencies" and "[n]o evidence supports ParkerVision's newly minted theory"); Burke Ex. A at 9 (order precluding ParkerVision from offering a "new infringement theory").) Like a Trojan horse, Dr. Allen's declaration tries to tender a new infringement theory, changing the location of where the accused baseband signal is created. (*Compare* Gardner Ex. 8 at 43-44 (contentions labeling "Down-Converted Signal" *after* the "Energy Storage Devices (capacitors)") *and* Gardner Ex. 8 at 89 (showing a "Baseband signal formed" after the capacitors) *with* Allen Decl. ¶ 18 (adding a new red label for "ParkerVision I Baseband").)

This is improper. The Court has stated: "ParkerVision may not serve infringement contentions raising new theories." (Dkt. 297 at 6-7.) ParkerVision cannot use Dr. Allen's conclusory declaration to add a new theory to the case. Just like in the ITC Action where the Administrative Law Judge precluded ParkerVision from offering a new theory that did not appear in its infringement contentions (but suddenly appeared in its expert report), this Court should reject Dr. Allen's attempt to add a new theory to the case. (Burke Ex. A at 9.)<sup>8</sup>

### III. CONCLUSION

The Court should grant Defendants' motion for partial summary judgment of noninfringement, dismissing the two receiver patents ('907 and '177 patents) from the case.

Dated: November 8, 2019

*By: Matthew Brigham*

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<sup>8</sup> Qualcomm also does not infringe under ParkerVision's new theory. For example, *ParkerVision I* established Qualcomm's capacitors are for filtering, not down-conversion. (*E.g.*, 621 F. App'x at 1013; 627 Fed. Appx. at 923; *see also* Gardner Ex. 17 (Q/A 52, Q/A 63, Q/A 106), Gardner Ex. 18 (Q/A 15, Q/A 105).)

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**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the above and forgoing document has been served on all counsel of record via the Court's ECF system on November 8, 2019.

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