

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' MOTION AND MEMORANDUM FOR
PARTIAL SUMMARY JUDGMENT
OF NONINFRINGEMENT BASED ON
COLLATERAL ESTOPPEL FROM *PARKERVISION I***

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Gardner Ex. 9	Exhibit 9A to ParkerVision's Infringement Contentions, dated June 9, 2015, from this case (No. 14-cv-687) for U.S. Patent No. 7,865,177
Gardner Ex. 10	Excerpt of ParkerVision's Infringement Contentions, dated November 7, 2017, from Jacksonville Action, No. 3:15-cv-1477 (M.D. Fla.)
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**MOTION FOR SUMMARY JUDGMENT OF NONINFRINGEMENT BASED
ON COLLATERAL ESTOPPEL FROM *PARKERVISION I***

Four patents remain at issue in this case: two transmitter patents (U.S. Patent Nos. 7,039,372, 6,091,940), and two receiver patents (U.S. Patent Nos. 7,218,907, 7,865,177). This Court has asked Qualcomm to submit a motion addressing the impact of *ParkerVision v. Qualcomm*, No. 11-719 (M.D. Fla.) (“*ParkerVision I*”) on this case. (Dkt. 309 at 1.) The primary impact is that summary judgment of noninfringement of the two receiver patents is appropriate based on the result of *ParkerVision I*. (Dkt. 26 at 108 (Count VIII (‘907 patent)), at 122 (Count IX (‘177 patent)).)

Despite the filing of serial actions here and in Germany, and the repeated filing of the same alleged “energy sampling” invention in numerous patents, ParkerVision cannot escape a basic fact: ParkerVision’s receiver claims depend on the creation of a baseband signal using an energy storage device (*e.g.*, a capacitor), but Qualcomm’s receiver designs use a current-mode *double-balanced mixer* to create the baseband signal, not any energy storage device. As Judge Dalton, three Federal Circuit judges, and the Staff at the International Trade Commission have recognized, this fact is fatal to ParkerVision’s claims. Issue preclusion bars ParkerVision from re-litigating the same alleged invention and the same technology.

ParkerVision I is thus case *dispositive* of the receiver patent claims in this case. Even ParkerVision has previously admitted this. (*E.g.*, Dkt. 218 at 4 (stating “appellate finality in its current form [in *ParkerVision I*] would resolve ParkerVision’s infringement claims as to the Receiver Patents and Claims” in this case).)¹ As a result, pursuant to Fed. R. Civ. P. 56,

¹ Qualcomm also denies infringement of ParkerVision’s “transmitter” patents (the ‘940 and ‘372 patents), but those patents are not the subject of this motion.

Defendants respectfully move for summary judgment of noninfringement of the two receiver patents ('907 and '177 patents), based on collateral estoppel from *ParkerVision I*, so this Court can dispose of the receiver patent claims immediately and narrow the issues for trial.²

The key material facts as to which there is no genuine dispute are:

1. ParkerVision's infringement theory for the '907 and '177 patents in this case is based on Qualcomm's Magellan (RTR8600) design. (Gardner Exs. 8, 9.) No other theory is charted in ParkerVision's infringement contentions. The Court has stated "ParkerVision may not serve infringement contentions raising new theories." (Dkt. 297 at 7.)

2. ParkerVision litigated receiver patents in *ParkerVision I*, including U.S. Patent Nos. 6,061,551; 6,370,371; 7,496,342; and 6,266,518. *E.g.*, *ParkerVision v. Qualcomm*, 27 F. Supp. 3d 1266, 1271-75, 1271, n.6, 1279 (M.D. Fla. 2014), Gardner Ex. 3. The receiver patents in this case ('907, '177 patents) are progeny of the '551 patent in *ParkerVision I*. (Gardner Exs. 11, 15, 16.)

3. In *ParkerVision I*, final judgment of noninfringement was entered in Qualcomm's favor. *E.g.*, *ParkerVision v. Qualcomm*, 621 F. App'x 1009, 1013-1024 (Fed. Cir. 2015), Gardner Ex. 1; *ParkerVision v. Qualcomm*, 627 Fed. App'x 921, 922-24 (Fed. Cir. 2015), Gardner Ex. 2.

² Defendants recognize that filing a summary judgment motion before issuance of a claim construction order and the close of discovery is somewhat irregular, but ParkerVision asked this Court to order an expedited deadline for Defendants' motion and a grant of this motion would significantly narrow the issues in this case. (Dkt. 300 at 3-4.) Moreover, resolution of this motion could reduce the number of claim construction issues before the Court. Consistent with summary judgment practice, Defendants would not oppose extending ParkerVision's deadline for a responsive brief from October 11 to October 28, and understand that Defendants' reply would be due fourteen days later (November 11). (Dkt. 309 at 9.)

4. The Federal Circuit in *ParkerVision I* found all of the accused Qualcomm products, including Qualcomm’s Magellan (RTR8600) design, did not infringe ParkerVision’s “energy sampling” claims. 621 F. App’x at 1012-17; 627 Fed. App’x at 922-24.

5. In *ParkerVision I*, the Federal Circuit stated: “Dr. Prucnal [ParkerVision’s expert] admitted that the *double-balanced mixer creates the baseband current* in the accused Qualcomm products and that the electric current upstream from the identified capacitors in those products is already ‘the baseband.’ In other words, the accused products do not require an electric current from the carrier signal to go in and out of the storage capacitors 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), Gardner Ex. 1.

6. ParkerVision’s “energy sampling” (or “energy transfer sampling”) alleged invention at issue in *ParkerVision I* uses an energy storage device (*e.g.*, a capacitor) to down-convert a high-frequency signal into a low-frequency baseband signal. *E.g.*, 621 F. App’x at 1011, Gardner Ex. 1.

7. ParkerVision’s alleged invention at issue in the ‘907 and ‘177 patents uses an energy storage device to down-convert a high-frequency signal into a low-frequency baseband signal. (*E.g.*, Gardner Ex. 15, claims 1, 13; Gardner Ex. 16, claims 1, 5, 14.)

8. As the trial court and Federal Circuit in *ParkerVision I* found, the double-balanced mixers in the accused Qualcomm products create the baseband signal, before the signal reaches the accused capacitors. (*E.g.*, 621 F. App’x at 1016-17, Gardner Ex. 1; 627 Fed. App’x at 922-24, Gardner Ex. 2.)

MEMORANDUM IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT

I. INTRODUCTION

Issue preclusion bars ParkerVision from re-litigating the same alleged invention and the same technology as litigated in *ParkerVision I*.

First, the accused products and structures are the same:

<i>ParkerVision I</i>	This Case
Double-balanced mixer design within “Magellan” (RTR8600) (along with eighteen other designs)	Double-balanced mixer design within “Magellan” (RTR8600) and [REDACTED]

Second, the ‘177 and ‘907 receiver patents stem from the *ParkerVision I* ‘551 patent:

‘177 Patent (highlighting added)	‘907 Patent (highlighting added)
Related U.S. Application Data	Related U.S. Application Data
(60) Division of application No. 09/550,644, filed on Apr. 14, 2000, now Pat. No. 7,515,896, which is a continuation-in-part of application No. 09/521,879, filed on Mar. 9, 2000, now abandoned, and a continuation-in-part of application No. 09/293,342, filed on Apr. 16, 1999, now Pat. No. 6,687,493, which is a continuation-in-part of application No. 09/176,022, filed on Oct. 21, 1998, now Pat. No. 6,061,551 .	(63) Continuation of application No. 10/394,069, filed on Mar. 24, 2003, which is a continuation of application No. 09/293,342, filed on Apr. 16, 1999, now Pat. No. 6,687,493, which is a continuation-in-part of application No. 09/176,022, filed on Oct. 21, 1998, now Pat. No. 6,061,551 .

Finally, the same feature found missing from Qualcomm’s receiver products in *ParkerVision I* is required by the asserted ‘907 and ‘177 patent claims here. Just like in *ParkerVision I*, where the ‘551 claims required a “storage module” (*e.g.*, a capacitor) to down-convert, the ‘907 claims require an “energy storage device” to down-convert, and the ‘177 claims require a storage module in the form of a “matched filtering/correlating module” to down-convert. (*E.g.*, ‘551, claim 23; ‘907, claim 1; ‘177, claim 1.) And, just like in *ParkerVision I*, where “a lower frequency signal is generated from the transferred energy,” in the ‘907 claims, “the energy provided to the load forms the down-converted signal,” and in the ‘177 claims, the “down-converted signal” is outputted. (*E.g.*, ‘551, claim 23; ‘907, claim 1;

‘177, claim 1.) Because Qualcomm’s receiver designs use a *double-balanced mixer* to create the down-converted baseband signal, not any *energy storage device* or *matched filtering/correlating module*, summary judgment of noninfringement of ParkerVision’s receiver patents is required. 621 F. App’x at 1016; 627 Fed. App’x 921, 922-24.

II. BACKGROUND

A. ParkerVision’s Serial Litigation Against Qualcomm.

1. *ParkerVision I*

Eight years ago, ParkerVision sued Qualcomm. *ParkerVision v. Qualcomm*, No. 11-719 (M.D. Fla. July 20, 2011) (“*ParkerVision I*”). ParkerVision accused more than seventy products of infringing eight receiver patents between its initial and amended complaints. Before trial, the Court granted summary judgment of noninfringement on fifteen Qualcomm products. *ParkerVision v. Qualcomm*, No. 11-719, 2013 WL 12152671, at *1 (M.D. Fla. Aug. 27, 2013) (Dalton, J.). ParkerVision also dropped numerous claims, patents, and products, including over “thirty-five Qualcomm products” before trial. *ParkerVision v. Qualcomm*, 27 F. Supp. 3d 1266, 1271, n.6 (M.D. Fla. 2014), Gardner Ex. 3.

Eleven claims from four patents, and nineteen Qualcomm product designs proceeded to trial.³ While the claims and products varied, one common issue sat at the center: whether there existed a capacitor structure in Qualcomm’s products that created the baseband signal.

³ ParkerVision asserted claims 23, 25, 161, 193, and 202 of U.S. Patent No. 6,061,551 (Gardner Ex. 11); claim 2 of U.S. Patent No. 6,370,371 (Gardner Ex. 12); claim 18 of U.S. Patent No. 7,496,342 (Gardner Ex. 20); and claims 27, 82, 90, and 91 of U.S. Patent No. 6,266,518 (Gardner Ex. 21). 27 F. Supp. 3d at 1271-75, 1271, n.6, 1279. ParkerVision dropped the ‘845, ‘734, ‘896, and ‘401 patents prior to trial. The ‘177 patent at issue in this case is a divisional of the dropped U.S. Patent No. 7,515,896 from *ParkerVision I*.

ParkerVision accused the “TX filter” in Qualcomm’s products as having the capacitors that allegedly generate the baseband signal by charging and discharging. *Id.* at 1283, Gardner Ex. 3. But the trial evidence undisputedly established that the output of the earlier, upstream “**double balanced mixers** in the accused products ‘is **the baseband.**’” *Id.* at 1283 (emphasis added). At trial, ParkerVision’s expert admitted that in Qualcomm’s products, “the **double balanced mixers create the baseband before** the lower frequency signal reaches the capacitors in the TX filter”. *Id.* at 1283 (emphasis added). As a result, following trial, Judge Dalton granted JMOL of noninfringement for Qualcomm on all claims and all products. *Id.* at 1285.

The Federal Circuit unanimously affirmed Judge Dalton’s noninfringement judgment and compounded ParkerVision’s loss by invalidating ten of the eleven asserted claims. *ParkerVision v. Qualcomm*, 621 F. App’x 1009, 1013-1024 (Fed. Cir. July 31, 2015) (Gardner Ex. 1). The Federal Circuit stated: “[i]t is undisputed that double-balanced mixers existed prior to ParkerVision’s invention,” and that a double-balanced mixer by itself “can be used to convert high-frequency carrier signals into low-frequency baseband signals.” *Id.* at 1013. Because the “**double-balanced mixer creates the baseband signal before that signal reaches the identified capacitors,**” Qualcomm’s receiver products could not infringe. *Id.* at 1013-16 (emphasis added); *see also id.* at 1013, n.4 (the double-balanced mixer in Qualcomm’s design generates the baseband signal and “the output of that circuit structure, which precedes both sets of capacitors identified by ParkerVision, ‘is the baseband’”); *id.* at 1012 (“the baseband signal was created before, or ‘upstream from,’ the storage capacitor”); *id.* at 1013 (“the capacitors identified by ParkerVision do not generate the baseband signal”).

ParkerVision sought rehearing, raising what the Federal Circuit characterized as yet

another “newly minted theory.” *ParkerVision v. Qualcomm*, 627 Fed. App’x 921, 922 (Fed. Cir. 2015) (Gardner Ex. 2). ParkerVision argued that Judge Dalton “misunderstood” the technology and the Federal Circuit “mistakenly believed” the trial evidence. (Gardner Exs. 25 at 61; 26 at 1.) The Federal Circuit denied rehearing in a detailed written opinion. 627 Fed. App’x at 922, Gardner Ex. 2. The Federal Circuit found that the “testimony on cross-examination was ‘unequivocal’ that the *double balanced mixers create the baseband before the lower frequency signal reaches the capacitors*,” and it rejected ParkerVision’s “third attempt to explain away” the evidence. 627 Fed. App’x at 922, n.1, 924 (emphasis added), Gardner Ex. 2. “Based on the totality of the evidence at trial,” the Federal Circuit found that “no reasonable finder of fact could come to a confident conclusion that the capacitors have a role in generating the baseband.” *Id.* at 924.

ParkerVision sought a writ of certiorari, accusing the Federal Circuit of “intransigence”. (Gardner Ex. 27 at 31.) The Supreme Court denied ParkerVision’s petition. *ParkerVision v. Qualcomm*, 136 S. Ct. 1507 (2016).

2. ITC Action

While this Court’s claim construction ruling and ParkerVision’s appeals before the Federal Circuit were pending, ParkerVision sued Qualcomm (and its customers) again, this time before the International Trade Commission (“ITC”) and in a companion case in Jacksonville. *In re the Matter RF Capable Integrated Circuits and Products Containing the Same*, No. 337-TA-982 (ITC); *ParkerVision v. Apple, et al.*, No. 3:15-cv-1477 (M.D. Fla. Dec. 14, 2015). ParkerVision asserted four patents: two receiver patents (‘817 and ‘528 patents),

and two transmitter patents (‘638 and ‘135 patents).⁴ ParkerVision accused many of the same Qualcomm products at issue in this case. (*E.g.*, Gardner Ex. 4 at 9.)

By the time the parties filed prehearing briefing in the ITC investigation, ParkerVision had dropped one patent (‘135 patent) and several claims. After fact and expert discovery closed, the Office of Unfair Import Investigations (“OUII”) – an independent governmental body that participates on behalf of the public in ITC investigations – filed a 160+ page brief that analyzed the evidence. (Gardner Ex. 4.) The OUII Staff concluded: [REDACTED]

[REDACTED]

[REDACTED] (Gardner Ex. 4 at 1 (emphasis added), 161.)

Notably, the OUII Staff agreed with Qualcomm that [REDACTED] [REDACTED] based on *ParkerVision I*. (Staff PHB at 47, Gardner Ex. 4 (emphasis added).) The Staff stated that although the receiver patents (‘528 and ‘817 patents) “[REDACTED] [REDACTED] the evidence would show that the claims are [REDACTED] [REDACTED] to the limitation the Federal Circuit found not to be infringed in *ParkerVision I*. (*Id.* at 46.) For the ‘817 receiver patent, the Staff explained:

[REDACTED]

⁴ U.S. Patent Nos. 6,879,817 (Gardner Ex. 13), 9,118,528 (Gardner Ex. 14), 7,929,638, and 8,571,135.

[REDACTED]

(Staff PHB at 46-47 (emphasis added), Gardner Ex. 4.)

For the '528 receiver patent, the OUII Staff stated:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(Staff PHB at 92-93 (emphasis added), Gardner

Ex. 4.) The Staff concluded:

[REDACTED]

(*Id.* at 93 (emphasis added), Gardner Ex. 4.)

After fifteen months of litigation before the ITC costing millions of dollars, after the witnesses submitted direct witness statement testimony, and two days before trial, ParkerVision surrendered, admitting to the Administrative Law Judge (ALJ) that “ParkerVision has determined that it can no longer proceed with its case-in-chief” and “an administrative hearing would not be a justifiable or effective use of anyone’s resources.”

(ITC Order No. 28 at 2, Gardner Ex. 6.)

3. Jacksonville Action

With its loss in *ParkerVision I* final, its ITC case abandoned, and this case stayed in

light of *inter partes* review, ParkerVision turned to the District Court in Jacksonville for yet another bite at the apple and to continue its patent litigation campaign against Qualcomm's receiver products. *ParkerVision v. Apple, et al.*, No. 3:15-cv-1477 (M.D. Fla. Dec. 14, 2015) (Davis, J.). Although ParkerVision began the case in Jacksonville by asserting the same four patents as in the ITC, now only the '528 receiver patent remains. (No. 15-1477, Dkt. 151 at 2.) The Jacksonville court recently invalidated claims 10 and 19 of the '528 patent (and all of the claims that depend on them) as indefinite, because the claims use the term "differential" in "inconsistent and nonsensical ways". (No. 15-1477, Dkt. 151 at 28.) ParkerVision's Jacksonville lawsuit remains ongoing, with the parties in discovery. The issue of collateral estoppel in light of *ParkerVision I* has not been briefed yet in the Jacksonville action.

4. This Action

ParkerVision filed this lawsuit the day after Judge Dalton held a hearing on Qualcomm's post-trial motions in *ParkerVision I*. *ParkerVision v. Qualcomm*, No. 14-cv-687 (M.D. Fla. May 2, 2014). ParkerVision filed a notice of related action, vowing to "move to transfer this action" to Judge Dalton (Dkt. 7), but after Judge Dalton granted judgment of noninfringement, ParkerVision changed course and opposed transfer. (Dkt. 84 at 1.)

ParkerVision then served infringement contentions in January and June 2015. In September 2015, before ParkerVision filed its petition to the Supreme Court in *ParkerVision I*, ParkerVision moved to sever and stay the receiver patents in this case, including the '907 and '177 patents. (Dkt. 218 at 5.) ParkerVision stated: "if the non-infringement holding [in *ParkerVision I*] survives the appeals," "ParkerVision is amenable to dropping its infringement claims with respect to the Receiver Patents and Claims and the subset of accused products that

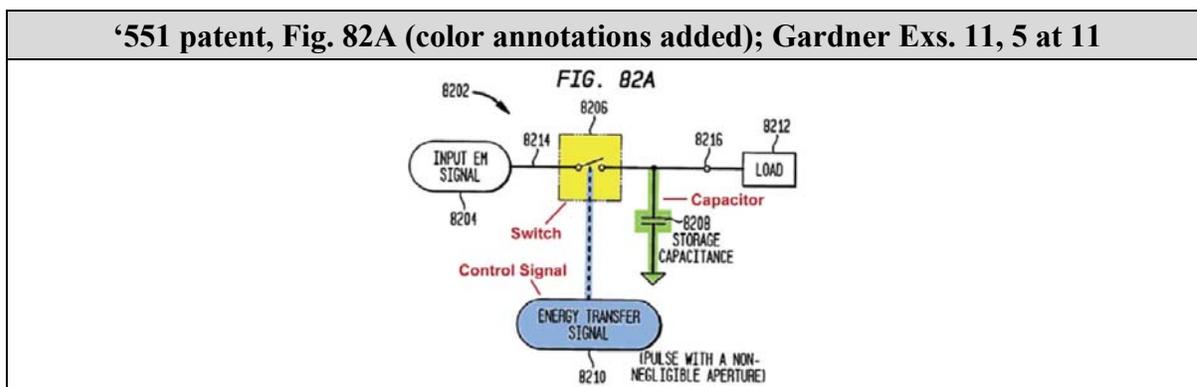
were also at issue in *ParkerVision I*. (Dkt. 218 at 7; *see also* Dkt. 218 at 9 (same); Dkt. 218 at 4 (“appellate finality in its current form would resolve ParkerVision’s infringement claims as to the Receiver Patents and Claims”).)

This case was then stayed pending *inter partes* review proceedings by the Patent Office and ParkerVision’s ITC action (discussed above). (Dkts. 250, 280.) After the stay lifted, ParkerVision chose to proceed on two transmitter patents (‘940, ‘372 patents) and, despite its earlier statements, the two receiver patents that are the subject of this motion. (Dkt. 297 at 7.)

B. ParkerVision’s Patents

1. ParkerVision I Patents

All of the *ParkerVision I* patents relate to “down-converting,” which is converting a high-frequency signal into a low-frequency baseband signal. *ParkerVision v. Qualcomm*, 621 F. App’x at 1011, Gardner Ex. 1. ParkerVision’s patents call their way of down-converting “energy sampling” (or energy transfer sampling). *Id.* at 1011. ParkerVision’s patents consist of a “switch connected on one end to an input electromagnetic signal and on the other end to a storage capacitor followed by a load device or resistor.” *Id.* at 1011 (citing U.S. Patent No. 6,061,551, Figs. 82A, 82B). Figure 82A is shown below, depicting the storage capacitance **8208** (*i.e.*, the capacitor) “to store energy transferred” from **8204**.



ParkerVision designed its down-converting system to perform energy sampling, “by increasing the size of the *capacitor*, increasing the duration of the period that the switch is closed, and decreasing the impedance value of the load.” *Id.* at 1011 (emphasis added). Put simply, ParkerVision’s patents used the capacitor (or storage element) to produce the low-frequency baseband signal. *Id.* at 1013. Although ParkerVision’s “asserted claims use slightly different language” (four patents in *ParkerVision I*), the Federal Circuit noted that everyone agreed the “differences in the claim language [did] not materially affect the issues”. *Id.* at 1012.

2. ITC and Jacksonville Patents

The ‘528 receiver patent in the ITC action and the Jacksonville action (discussed above) stems from the same ‘551 patent in *ParkerVision I*. The face of the ‘528 patent also lists the ‘177 patent-in-suit in this case as related and from the same family (highlighted in green):

‘528 Patent (highlighting added), Gardner Ex. 14
<p style="text-align: center;">Related U.S. Application Data</p> <p>continuation of application No. 12/976,839, filed on Dec. 22, 2010, now Pat. No. 8,340,618, which is a continuation of application No. 12/349,802, filed on Jan. 7, 2009, now Pat. No. 7,865,177, which is a division of application No. 09/550,644, filed on Apr. 14, 2000, now Pat. No. 7,515,896, which is a continuation-in-part of application No. 09/293,342, filed on Apr. 16, 1999, now Pat. No. 6,687,493, which is a continuation-in-part of application No. 09/176,022, filed on Oct. 21, 1998, now Pat. No. 6,061,551.</p>

(*See also* Staff PHB at 92-93, Gardner Ex. 4 (stating the [REDACTED] [REDACTED]”).) The ‘817 receiver patent in the ITC action was also related to a patent asserted in *ParkerVision I* – U.S. Patent No. 6,963,734. (*See also* Staff PHB at 47, Gardner Exs. 4, 13, 22.)

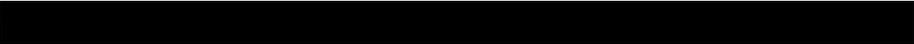
3. Receiver Patents in this Action

Both of the receiver patents (U.S. Patent Nos. 7,865,177 and 7,218,907) here stem from

the ‘551 patent in *ParkerVision I*. (See *supra* Intro (screenshot).⁵) Both of the ‘177 and ‘907 patents are directed to down-converting, using energy sampling. (‘177, ‘907, Abstracts.)

C. Qualcomm’s Technology

1. Products in *ParkerVision I*

The *ParkerVision I* judgment involved nineteen Qualcomm products, but *ParkerVision*’s case focused primarily on Qualcomm’s Magellan / Odyssey design. 621 F. App’x at 1012, Gardner Ex. 1; 27 F. Supp. 3d at 1271, n.7, Gardner Ex. 3; Gardner Ex. 18 at RX-4102.1C at 2C (“”).⁶ *ParkerVision*’s expert testified his opinions regarding “the Magellan product applied to each of Qualcomm’s accused products”. *Id.* *ParkerVision*’s expert testified about the diagram below, which shows components in the receive path:



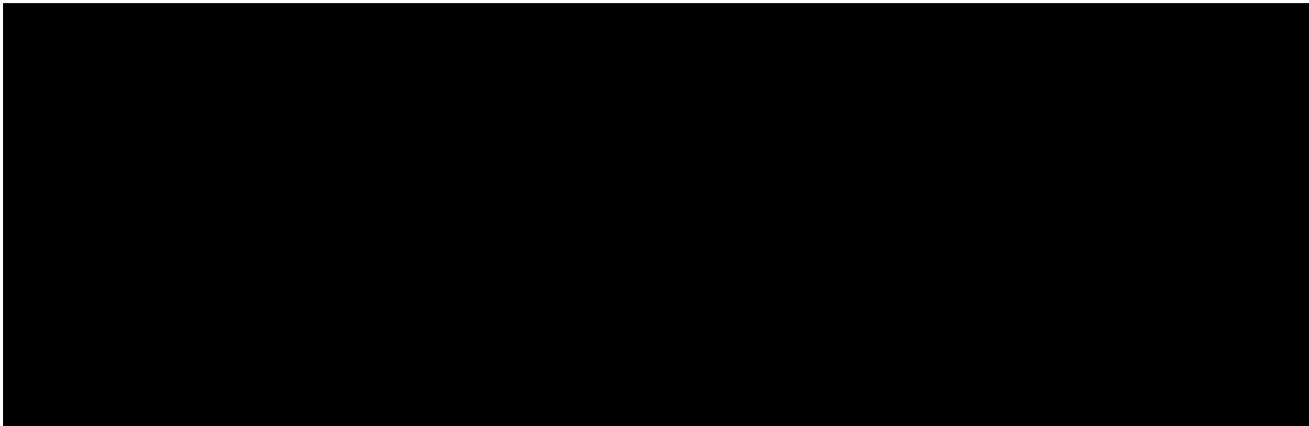
⁵ *ParkerVision* has further confirmed the close relationship by alleging that the claims of the ‘907 patent should be afforded a 1998 priority date, because they are fully “supported by disclosure within the ‘551 Patent.” (Gardner Ex. 19 at 9 (Rog. 3).)

⁶ *ParkerVision* accused Astra, Bahama, Eagleray, GZIF3, GZIF4, Halley, Hercules, Iceman, Iris, Libra/Gemini, *Magellan*, Merlin, Napoleon, *Odyssey*, Ramsis, Solo, Volans, Voltron, and Ywing. (*ParkerVision I*, 27 F. Supp. 3d at 1271, Gardner Ex. 3; see also *id.* at 1271, n.7.) As explained below, *ParkerVision*’s infringement theory in this case is based on Magellan, and  found non-infringing in *ParkerVision I*.

(Gardner Ex. 5 at 41.) [REDACTED]

[REDACTED] ⊗ [REDACTED]

[REDACTED] A more detailed diagram of the [REDACTED] shown above, appears below. ParkerVision’s expert testified [REDACTED] [REDACTED] indicate that in Qualcomm’s Magellan architecture the double-balanced mixer outputs the down-converted baseband signal:



(Gardner Ex. 5 at 42.)

The Federal Circuit concluded the “baseband signal is created in the crisscrossed transistors of the *double-balanced mixer*.” 621 F. App’x at 1014 (emphasis added), Gardner Ex. 1. The Federal Circuit confirmed that “the baseband current is created by the double-balanced mixer *before* the current reaches the capacitors.” *Id.* at 1016 (emphasis added). The Federal Circuit agreed that ParkerVision’s expert “conceded that in the accused products the baseband signal [is] created before, or ‘upstream from,’ the storage capacitor.” *Id.* at 1012.

2. Products in ITC and Jacksonville Actions

ParkerVision’s ITC action accused a Qualcomm product called the [REDACTED] [REDACTED] amongst a litany of other products. ParkerVision’s infringement allegations for

all of the accused products relied on *the same mixer core* architecture found non-infringing in *ParkerVision I*. (E.g., Gardner Ex. 7 at 45; Gardner Ex. 17 at RX-4101C at 16C [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Gardner Ex. 18 at RX-4102 at 1C

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Gardner Ex. 4 at 47 [REDACTED]

[REDACTED]

In ParkerVision's current Jacksonville lawsuit, ParkerVision has conceded that the

[REDACTED]

[REDACTED] from *ParkerVision I*. (Gardner Ex. 10 at 41.)

3. Products in This Action

In this action, ParkerVision served several rounds of infringement contentions based on a review of Qualcomm's technical documentation and schematics. For the '177 and '907 patents, although ParkerVision accuses numerous products (much like ParkerVision's approach in *ParkerVision I* and in the ITC action), ParkerVision's infringement theory here rests entirely on the *same Magellan design* found non-infringing in *ParkerVision I*. (See Gardner Ex. 8 (only providing annotations for Magellan (RTR8600)); Gardner Ex. 9 (same); Gardner Ex. 8 at 1 (citing Magellan (RTR8600) CircuitVision Report); Gardner Ex. 9

at 2 (same).) ParkerVision is barred from serving “infringement contentions raising new theories.” (Dkt. 297 at 7.)

ParkerVision’s infringement theory here is based on a non-infringing product design.⁷

III. LEGAL STANDARDS

“[A] party who has litigated an issue and lost should be bound by that decision and cannot demand that the issue be decided over again.” *In re Freeman*, 30 F.3d 1459, 1465 (Fed. Cir. 1994); *Allen v. McCurry*, 449 U.S. 90, 94 (1980) (preclusion “relieve[s] parties of the cost and vexation of multiple lawsuits”). Collateral estoppel in a patent case “prevents a plaintiff who previously litigated a claim that certain technology infringed its patent (and lost) from taking ‘another bite at the apple’ by again asserting that the same technology infringes.” *Reese v. Verizon Cal.*, 498 F. App’x 980, 982 (Fed. Cir. 2012).

Collateral estoppel applies when: “(1) the issue is identical to one decided in the first action; (2) the issue was actually litigated in the first action; (3) resolution of the issue was essential to a final judgment in the first action; and (4) plaintiff had a full and fair opportunity to litigate the issue in the first action.” *In re Freeman*, 30 F.3d at 1465; *Pleming v. Universal-Rundle Corp.*, 142 F.3d 1354, 1359 (11th Cir. 1998) (identifying factors). The Federal Circuit has stated: “[o]ur precedent does not limit collateral estoppel to patent claims that are identical. Rather, it is the identity of the *issues* that were litigated that determines whether collateral estoppel should apply.” *Ohio Willow Wood v. Alps S.*, 735 F.3d 1333, 1342 (Fed. Cir. 2013) (emphasis in original); *Soverain Software v. Victoria’s Secret Direct Brand*, 778 F.3d 1311,

⁷ ParkerVision’s allegations against HTC are based on use of Qualcomm products. A finding of noninfringement for Qualcomm would result in dismissal of claims against HTC.

1319 (Fed. Cir. 2015) (“Complete identity of claims is not required to satisfy the identity-of-issues requirement for claim preclusion”).

In *Aspex Eyewear v. Zenni Optical*, 713 F.3d 1377, 1381-82 (Fed. Cir. 2013), the Federal Circuit found that the patentee was collaterally estopped from re-litigating infringement against a different defendant’s products, because that defendant’s products were “materially identical” to the non-infringing products in the first suit. The Federal Circuit stated: “the assertion of different claims in a subsequent suit does not create a new ‘issue’ to defeat preclusion.” *Id.* at 1381. It was also irrelevant whether the additional claims in the second suit contained “additional terms that were not previously construed.” *Id.* at 1382; *Molinaro v. Fannon/Courier*, 745 F.2d 651, 652-53 (Fed. Cir. 1984) (*per curiam*) (affirming summary judgment of noninfringement based on collateral estoppel).

Federal Rule of Civil Procedure 56 requires the court to “grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *Celotex v. Catrett*, 477 U.S. 317, 322-23 (1986); *Exigent Tech. v. Atrana Sols.*, 442 F.3d 1301, 1308-09 (Fed. Cir. 2006) (“nothing more is required than the filing of a summary judgment motion stating that the patentee had no evidence of infringement and pointing to the specific ways in which accused systems did not meet the claim limitations”).

IV. ARGUMENT

A. **ParkerVision Had a Full and Fair Opportunity to Litigate Infringement of its Energy Sampling Invention by Qualcomm’s Receiver Products.**

ParkerVision I resulted in a final judgment of noninfringement. Judge Dalton and three judges from the Federal Circuit reviewed the evidence and decided that Qualcomm’s receiver

product design does not infringe ParkerVision's energy-sampling receiver patents. 621 F. App'x at 1016, Gardner Ex. 1; 627 Fed. App'x at 922-24, Gardner Ex. 2. Indeed, Judge Dalton and the Federal Circuit analyzed the *same* current-mode double-balanced mixer design that forms the basis of ParkerVision's infringement allegations in this case, and they concluded Qualcomm does not use the down-conversion design in ParkerVision's patents. ParkerVision cannot re-litigate what the Federal Circuit has already decided, and it cannot use this litigation to overturn the finding that Qualcomm's current-mode double-balanced mixers do not generate the down-converted baseband using energy in the capacitors. 621 F. App'x at 1016.

ParkerVision has exploited every opportunity to litigate Qualcomm's technology, and it has lost at every turn. In *ParkerVision I*, ParkerVision began by selecting its top eight receiver patents to assert against more than seventy Qualcomm products. ParkerVision subsequently jettisoned its claims against all but eleven claims from four patents, and nineteen designs. But because the double-balanced mixer in all of the accused products "create[d] the baseband signal *before* that signal reaches the identified capacitors," the Federal Circuit concluded Qualcomm cannot infringe ParkerVision's patents. 621 F. App'x at 1013-16 (emphasis added), Gardner Ex. 1.

ParkerVision sought rehearing and lost again. 627 Fed. App'x at 922-24, Gardner Ex. 2. ParkerVision petitioned for certiorari, and the Supreme Court denied the petition. 136 S. Ct. 1507; *see also Stephen Slesinger v. Disney Enters.*, 702 F.3d 640, 644-646 (Fed. Cir. 2012) (collateral estoppel applied); *Intellectual Ventures I v. Capital One Fin.*, 850 F.3d 1332, 1337 (Fed. Cir. 2017) (same). ParkerVision (who is represented by the same counsel in this case) has no reasonable basis to contend that it has not had a full and fair opportunity to litigate.

B. The Accused Qualcomm Technology is the Same.

All of the accused Qualcomm products in this litigation use double-balanced mixers—the same technology the Federal Circuit found non-infringing in *ParkerVision I*. 621 F. App’x at 1013-18, Gardner Ex. 1. The Federal Circuit issued two detailed written opinions. *Id.* at 1016, Gardner Ex. 1; 627 Fed. App’x at 922-24, Gardner Ex. 2. In those opinions, the Federal Circuit repeatedly emphasized essential findings that the double-balanced mixers in Qualcomm’s products produce the already down-converted baseband signal upstream of the accused capacitors. For example, the Federal Circuit stated:

- “It is undisputed that double-balanced mixers existed prior to ParkerVision’s invention and that a double-balanced mixer by itself (i.e., without the addition of output capacitors) can be used to convert high frequency carrier signals into low-frequency **baseband signals**.” 621 F. App’x at 1013 (emphasis added), Gardner Ex. 1.
- “The parties’ dispute thus centers on whether the capacitors immediately downstream from the mixer are involved in generating the **baseband signal**.” *Id.* at 1013 (emphasis added).
- “On cross-examination, however, Dr. Prucnal admitted that the **baseband signal** in the accused products has already been created before the signal reaches the identified capacitors. He also testified that the ‘output’ of the double-balanced mixer ‘is the baseband,’ and that the double-balanced mixer ‘in fact’ creates the **baseband signal**.” *Id.* at 1013 (emphasis added).
- “Dr. Prucnal’s admission 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’ the energy stored in the capacitors, **precluding a finding of infringement**.” *Id.* at 1014 (emphasis added).
- “But Dr. Prucnal admitted that the double-balanced mixer creates the baseband current in the accused Qualcomm products and that the electric current upstream from the identified capacitors in those products is already ‘the baseband.’ In other words, **the accused products do not require an**

electric current from the carrier signal to go in and out of the storage capacitors in order to create the baseband signal; instead, the baseband current is created by the double-balanced mixer before the current reaches the capacitors.” *Id.* at 1016 (emphasis added).

- “ParkerVision’s infringement expert conceded that in the accused products the **baseband signal** was created before, or ‘upstream from,’ the storage capacitor.” *Id.* at 1012 (emphasis added).
- “[W]e 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.**” 627 Fed. App’x at 922 (emphasis added), Gardner Ex. 2.
- “Dr. Prucnal admitted that the carrier signal ... has been ‘eliminated’ at the mixer output.” *Id.* at 922.

See also 621 F. App’x at 1014, Gardner Ex. 1 (“Mr. Jaffee testified ... the baseband signal is created in the crisscrossed transistors of the double-balanced mixer.”); *id.* at 1015-1016 (“That a baseband current already exists before the current from the carrier signal reaches the capacitors shows that the baseband signal is not generated in the way ParkerVision asserts.”); *id.* at 1017 (ParkerVision’s expert’s testimony “regarding the 50% duty cycle products” was “insufficient”); *VirnetX v. Apple*, 909 F.3d 1375, 1378 (Fed. Cir. 2018) (estoppel applied, where the Federal Circuit found facts the patentee could not re-litigate).

ParkerVision’s infringement contentions for the receiver patents in this case rest **entirely** on the *same Magellan design* found non-infringing in *ParkerVision I*. (Gardner Ex. 8 (ParkerVision providing annotations only for Magellan (RTR8600)); Gardner Ex. 9 (same); 27 F. Supp. 3d at 1271 & 1271, n.7, Gardner Ex. 3.) ParkerVision is estopped from re-litigating how Magellan works.

The only other product described in ParkerVision’s infringement contentions is the

[REDACTED]. But the structure of the [REDACTED] was fully litigated by ParkerVision through fact and expert discovery in the ITC action. (*E.g.*, Gardner Ex. 4 at 9.) Thus, even if ParkerVision wishes to point to the conclusory string cites to [REDACTED] in its contentions, that would be futile. (*E.g.*, Gardner Ex. 8 at 3 (“*see also*” [REDACTED] Chipworks Report).) The record evidence in the ITC established that the [REDACTED] [REDACTED] found non-infringing in *ParkerVision I*. (*E.g.*, Gardner Ex. 7 at 44-45 (citing evidence); Gardner Ex. 17 at RX-4101.16C at 16C [REDACTED] [REDACTED] [REDACTED] [REDACTED] Gardner Ex. 18 at RX-4102.1C at 4C [REDACTED] [REDACTED] [REDACTED] [REDACTED] *see also* Gardner Ex. 17, RX-4101C at 23C-24C (Q/A 91-93); *id.* at 27C (Q/A 106); Gardner Ex. 18, RX-4102 at 2C (Q/A 14-17); *id.* at 3C-4C (Q/A 19-26); *id.* at 13C (Q/A 74); *id.* at 21C (Q/A 116); *id.* at 47C (Q/A 219).) ParkerVision has also unequivocally conceded that the [REDACTED] [REDACTED] [REDACTED] from *ParkerVision I*. (Gardner Ex. 10 at 41; 27 F. Supp. 3d at 1271 & n.7, Gardner Ex. 3.) As a result, when the OUII Staff reviewed the evidence in the ITC—which included evidence regarding the [REDACTED] later products—the Staff found that issue

preclusion [REDACTED] based on *ParkerVision I*. (Staff PHB at 47 (emphasis added), Gardner Ex. 4; *Hallco Mfg. v. Foster*, 256 F.3d 1290, 1297 (Fed. Cir. 2001) (preclusion applies when the devices are “essentially the same” or any differences are “merely colorable”); *Phil-Insul v. Airlite Plastics*, 854 F.3d 1344, 1358, 1360 (Fed. Cir. 2017) (affirming noninfringement).)

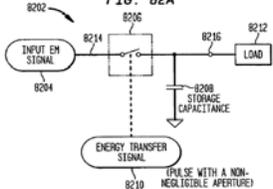
ParkerVision is therefore precluded from re-litigating where and how the baseband signal is created in Qualcomm’s products. The accused Qualcomm designs undisputedly all follow the same down-conversion approach, with the double-balanced mixer core that the Federal Circuit held does not infringe, creating the baseband signal before the filters with capacitors. 621 F. App’x at 1016; Gardner Ex. 17 at RX-4101.16C-20C; Gardner Ex. 18 at RX-4102.1C-4C; *Nystrom v. Trex*, 580 F.3d 1281, 1285-86 (Fed. Cir. 2009) (no “second bite at the apple”); *Senju Pharm. v. Apotex*, 746 F.3d 1344, 1353 (Fed. Cir. 2014) (no “do-over”).

C. ParkerVision Seeks to Re-litigate the Same Alleged Invention.

1. ParkerVision’s receiver patents all rely on an energy storage device to down-convert.

Both the ‘177 and ‘907 patents in this case are directed to down-converting using energy sampling, just like the four *ParkerVision I* patents. Indeed, *ParkerVision* itself recognized that “appellate finality in its current form [in *ParkerVision I*] would resolve *ParkerVision*’s infringement claims as to the Receiver Patents and Claims” in this case. (Dkt. 218 at 4.) Although the *ParkerVision I* patents also included over 200 pages, the Federal Circuit looked at “Figs. 82A, 82B” which describe “[a]t the most basic level,” *ParkerVision*’s alleged “energy sampling” invention. 621 F. App’x at 1011. *ParkerVision*’s idea uses an energy storage device (*e.g.*, storage capacitance below), to down-convert. *Id.* The ‘177 and

‘907 patents repeat the same Figure 82A (*see supra* Section II(B)(1)):

‘177, ‘907, Fig. 82A, Exs. 15, 16	‘177 Patent, 73:26-29; ‘907 Patent, 68:9-13
	<p>“FIG. 82A illustrates an exemplary energy transfer system 8202 for down-converting an input EM signal 8204. The energy transfer system 8202 includes a switching module 8206 and a storage module illustrated as a storage capacitance 8208.”</p>

2. Just like in *ParkerVision I*, the ‘907 patent requires creating a down-converted signal using energy from an energy storage device.

Each of the independent asserted claims of the ‘907 patent requires “providing ... energy from the energy storage device to the load” and further requires that the same “energy provided to the load forms a down-converted signal.” (‘907 patent, claims 1, 13, Gardner Ex. 15.) The ‘551 patent in *ParkerVision I* claimed the same concept, reciting: “said storage module receives ... energy transferred ... wherein a lower frequency signal is generated from the transferred energy.” (‘551 patent, claim 23, Gardner Ex. 11; *see also* Gardner Ex. 24 at 5 (ParkerVision during prosecution of a patent related to the ‘907 patent, stating “the down-converted signal is formed or defined by charge associated with the stored energy”).) Just like in *ParkerVision I*, the ‘907 claims require “that the accused products produce a [down-converted signal] using energy that has been transferred from [an electromagnetic signal] into [an energy storage device], such as a capacitor or set of capacitors.” *ParkerVision*, 621 F. App’x at 1013, Gardner Ex. 1; *Ohio Willow*, 735 F.3d at 1342 (applying preclusion where the patents used “slightly different language to describe substantially the same invention”); *Molinaro*, 745 F.2d at 652-53, 655 (stating 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”); *Swartz v. United States Patent &*

Trademark Office, 743 F. App'x 426, 427 (Fed. Cir. 2018), *cert. denied*, 139 S. Ct. 1279 (2019) (collateral estoppel applied to a continuation patent).⁸ As a result, summary judgment of noninfringement of the '907 patent based on collateral estoppel is required.

3. Just like in *ParkerVision I*, the '177 requires an energy storage device for down-conversion.

All of the asserted '177 claims likewise require that a device produce a low-frequency baseband signal using energy transferred from the modulated carrier into a storage element. (Dkt. 297 at 7 (claims).) For example, each of the asserted claims of the '177 patent requires performing down-conversion using a “matched filtering/correlating module.” (Gardner Ex. 16.) Notwithstanding the parties' pending claim construction dispute, both parties' proposed constructions require an energy storage device to be part of the circuitry that performs the down-conversion and outputs the down-converted signal.

Qualcomm's proposed construction requires that the “matched filtering/correlating module” include an integrator. (Dkt. 171 at 2.) An “integrator” is an energy storage device used to store energy transferred from a high-frequency input signal. Just as in the *ParkerVision I* claims (*e.g.*, '371 patent, claim 2, Gardner Ex. 12; '518 patent, claims 82, 90, Gardner Ex. 21; *see also* '528 patent, claim 1, Gardner Ex. 14), the integrator in the '177 patent is an energy storage device that creates the down-converted baseband signal using stored energy. *Swartz*, 743 F. App'x at 427 (collateral estoppel applied to a related patent).

⁸ The '907 patent claims also require coupling the high frequency signal (“electromagnetic signal”) to an energy storage device. In *ParkerVision I*, the Federal Circuit found that in Qualcomm's designs the carrier signal is “eliminated” at the output of the double-balanced mixer. 627 Fed. App'x at 922, Gardner Ex. 1. *ParkerVision* thus cannot argue that Qualcomm's designs couple the carrier signal to an energy storage device after the double-balanced mixer.

Although ParkerVision tries to avoid the words “storage device” in its *94-word* proposed construction, ParkerVision admits that the “matched filtering/correlating module” must “accumulate[] and transfer[]” samples from the carrier signal to “produc[e] a downconverted signal.” (Dkt. 303 at 3.) The Federal Circuit found in *ParkerVision I* that ParkerVision’s invention requires “accumulat[ing]” energy in a storage device. 621 F. App’x at 1016 (“[I]n order to generate the baseband signal according to ParkerVision’s invention, electric current from the carrier signal first flows into the storage capacitor and is accumulated there as energy.”), Gardner Ex. 1. An energy storage device is thus required to “accumulate[] and transfer[]” samples from the high-frequency signal to down-convert in ParkerVision’s invention. In fact, a named inventor of the ‘177 patent testified that the matched filtering/correlating module is “basically” an “integration function,” and uses energy stored in the “capacitor” to generate the down-converted signal. (Cook Depo. 201:4-22, Gardner Ex. 23.) ParkerVision has also argued that “integrated” and “accumulated” are synonymous. (No. 15-1477, Dkt. 151 at 20-21.) Both constructions thus require an energy storage device perform the down-conversion and output the down-converted signal. *ParkerVision I* established Qualcomm’s products do not operate in the claimed way. 621 F. App’x at 1016.

V. CONCLUSION

Pursuant to ParkerVision’s wish that “before the parties expend significant resources on fact and expert discovery” (Dkt. 300 at 4) and the Court’s Scheduling Order, Defendants move for summary judgment of noninfringement based on collateral estoppel, and request dismissal of ParkerVision’s ‘177 and ‘907 receiver patent claims.

Dated: September 27, 2019

By: Matthew Brigham
Matthew Brigham

COOLEY LLP
Stephen C. Neal (admitted pro hac vice)
nealsc@cooley.com
Matthew Brigham (admitted pro hac vice)
mbrigham@cooley.com
Jeffrey Karr (admitted pro hac vice)
jkarr@cooley.com
Dena Chen (admitted pro hac vice)
dchen@cooley.com
3175 Hanover Street
Palo Alto, CA 94306-2155
Phone: (650) 843-5000
Fax: (650) 849-7400

Stephen Smith (admitted pro hac vice)
ssmith@cooley.com
1299 Pennsylvania Avenue NW, Suite 700
Washington, DC 20004
Phone: (202) 842-7800
Fax: (202) 842-7899

Eamonn Gardner (admitted pro hac vice)
egardner@cooley.com
380 Interlocken Crescent, Suite 900
Broomfield, CO 80021-8023
Telephone: (720) 566-4000
Facsimile: (720) 720-566-4099

Michael E. Lockamy (Florida Bar No. 069626)
mel@bedellfirm.com
The Bedell Building
101 East Adams Street
Jacksonville, Florida 32202
Telephone: (904) 353-0211
Facsimile: (904) 353-9307

*Attorney for Defendants
Qualcomm Incorporated, Qualcomm Atheros,
Inc., HTC Corporation and HTC America, Inc.*

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 September 27, 2019.

/s/ Matthew Brigham

Matthew Brigham (admitted pro hac vice)
mbrigham@cooley.com
3175 Hanover Street
Palo Alto, CA 94306-2155
Phone: (650) 843-5000
Fax: (650) 849-7400

*Attorney for Defendants
Qualcomm Incorporated, Qualcomm Atheros, Inc.,
HTC Corporation and HTC America, Inc.*