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OUTSIDE COUNSEL RESTRICTED – SCHEMATICS**

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

PARKERVISION, INC.,

Plaintiff,

v.

INTEL CORPORATION,

Defendant.

Case No. 6:20-cv-00108-ADA

JURY TRIAL DEMANDED

**PLAINTIFF PARKERVISION, INC.’S REPLY BRIEF IN SUPPORT OF
MOTION TO EXCLUDE CERTAIN EXPERT TESTIMONY OF
DR. VIVEK SUBRAMANIAN**

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I. DR. SUBRAMANIAN’S NON-INFRINGEMENT OPINIONS.

An expert should not get to provide unreliable testimony to a jury based on the expert’s *conclusory say-so* which, in turn, is based on the *say-so* of former engineers. Yet, that is what Intel’s expert, Dr. Subramanian, is attempting to do here with his simulations.

It is not a reliable methodology for Dr. Subramanian to deviate from what is shown in Intel’s schematics and documents and, instead, rely on his *subjective* feelings based only on the *views/opinions* of three former engineers (undisclosed expert opinions), where (1) two of the engineers did not work on the relevant portions of the Accused Chips (which were developed as far back as a decade ago), (2) Dr. Subramanian’s report does not disclose and he cannot remember who told him what, and (3) the engineers provided no documentary support for their view/opinions nor were they asked for any. Indeed, the engineers’ views *contradict* the documentary evidence. Employing such a methodology – untethered from reality – would allow an expert *carte blanche* to say, do, or show to the jury whatever the expert wants without any basis in actual evidence.

Intel’s response seeks to shift focus away from this issue. But when one cuts through it, Intel does not deny (and ignores) that key components/component values that Dr. Subramanian used for his testing of the Accused Chips are not found anywhere in *thousands of pages* of schematics or in the over *thirteen million documents* that Intel produced in this case. He simply made them up and justified doing so based solely on the unidentified engineers’ *say-so*. Intel does not deny (and again ignores) that there is no evidence supporting what the engineers said.

Simply put, Dr. Subramanian *blindly* followed what some unknown engineer told him and did so based on his *subjective feeling* that it made sense. Given that components and their values affect the results of simulations, Dr. Subramanian’s methodology is far from reliable. And

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without knowing which engineer told him what, neither the Court, the jury, nor ParkerVision can test the reasonableness of Dr. Subramanian’s reliance on these former engineers.

Dr. Subramanian should be precluded from presenting his simulations to the jury.

A. Dr. Subramanian’s Category One and Category Two simulations

Intel injects a discussion comparing Dr. Subramanian’s own simulations (Category One) with Dr. Steer’s simulations that Dr. Subramanian re-ran (Category Two). According to Intel, Dr. Subramanian’s methodology is just fine because he comes to the same conclusion under both scenarios. So says Intel.

Dr. Subramanian’s use of an unreliable methodology cannot be excused by Intel’s argument that his conclusions would not have changed *if* he had used a reliable one. That argument improperly asks the Court to conduct a technical analysis of Dr. Subramanian’s conclusions (using select snippets from his report) and determine reliability based on whether he gets to the same conclusion under different methodologies. Intel has it backwards; his conclusions are irrelevant. The question is whether Dr. Subramanian’s deviation from Intel’s schematics/documents and his basis for doing so was a reliable methodology. It was not.

B. Who Dr. Subramanian received his information from is critical.

As a threshold matter, the opinions/views of the three former engineers are *undisclosed expert opinions* because they pertain to how the Accused Chips *could be* configured and simulated, not how they were *actually* configured and simulated.

And which of the three former engineers Dr. Subramanian based his decision to *deviate from/ignore* the actual schematics/documents matters is critical. Intel glosses over the fact that Dr. Subramanian’s expert report does not identify who told him what nor could he recall at his deposition. But out of the three engineers, only Dr. Schelmbauer was involved in the

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design/development of the relevant receiver circuitry in the Accused Chips. The other engineers were not. Yet, in his expert report and deposition, Dr. Subramanian never identifies any information that supposedly came from Dr. Schelmbauer. And Intel did not provide any Schelmbauer report on how the Accused Chips *could* be configured and simulated.

Recognizing that the other two engineers—Drs. Klepser and Hull—were not involved with the relevant circuitry in the Accused Chip, Intel carefully avoids addressing their specific involvement. Instead, Intel asserts that they were “deeply involved with the Intel products.”¹ Resp. at 1. To say that this is a gross exaggeration is an understatement.²

Far from being deeply involved, Dr. Klepser stated: With regard to SMARTi 4.5, [REDACTED] Ex. 1 (Klepser 6/23/22 Tr.) at 22:7-8. With regard to SMARTi 4G, when asked [REDACTED] [REDACTED] *Id.* at 23:22-24; *see also id.* at 23:2-21 [REDACTED]. With regard to SMARTi 5, he stated that [REDACTED]. *Id.* at 25:15-24. With regard to SMARTi 6, he [REDACTED] [REDACTED] *Id.* at 25:25-26:25. With regard to SMARTi 7, he stated [REDACTED] [REDACTED] *Id.* at 34:7-11. With regard to SMARTi 8, [REDACTED] [REDACTED] *Id.* 34:16-18. He had already left the company.

¹ To bolster its position, Intel notes that Dr. Steer cited Hull and Klepser many times in his expert report. Resp. at 4. Of course he did – they were designated as 30(b)(6) witnesses.

² Intel’s use of a list of buzz words from Dr. Klepser’s deposition does not change the fact that Dr. Klepser does not have relevant knowledge that would allow Dr. Subramanian to deviate from/ignore Intel schematics/documents. *See* Resp. at 4. And Intel referring to Dr. Hull [REDACTED] of other Intel products (not the Accused Chips) or [REDACTED] [REDACTED] the Accused Chips is not reasonable justification for relying on Dr. Hull. *Id.*

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Dr. Hull testified that [REDACTED]

[REDACTED] See Ex. 2 (Hull 6/26/22 Tr.) at 36:3-6 [REDACTED] 45:2-9 [REDACTED]

[REDACTED] 46:4-11 [REDACTED] 51:1-4 [REDACTED] With regard to SMARTi 4.5, when asked [REDACTED]

[REDACTED]” *Id.* at 39:1-3. With regard to SMARTi 5, he [REDACTED]

[REDACTED] *Id.* at 39:11-17. [REDACTED]

[REDACTED] *Id.* at 40:17-41.

C. Dr. Subramanian failed to model/simulate the actual Accused Chips.

As a result of deviating from/ignoring Intel schematics/documents, Dr. Subramanian did *not* model/simulate the *actual* Accused Chips but, rather, modeled/simulated a *hypothetical* chip. Allowing him to present his simulations at trial will only confuse the jury.

Transmission line: To justify Dr. Subramanian’s [REDACTED] and making up associated values (*inconsistent* with Intel’s schematics and documents including Intel’s own simulations), Intel asserts that one of three engineers provided Dr. Subramanian with their views/opinions on the matter. Notably, Intel cannot even identify which engineer gave Dr. Subramanian this information – it is not in Dr. Subramanian’s report and he cannot remember. But who gave him information is important, because only Dr. Schelmbauer actually worked on the relevant circuitry that Dr. Subramanian analyzed. Even then, Dr. Subramanian testified that no engineer provided documentary support to justify what they told him. Thus, Dr. Subramanian set up a situation where there is no way for anyone to test the reasonableness of him [REDACTED]

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[REDACTED]. His conclusory statement³ that what some unknown engineer told him made sense is not a reliable methodology to justify ignoring documentary evidence.

Mixer transistor width: The [REDACTED]
[REDACTED]—in black and white. There was absolutely no basis for Dr. Subramanian to *ignore* these values and use values of his own choosing. Yet, again, Intel justifies Dr. Subramanian making up values based on discussions with some unknown engineer. Again, Intel is unable to say which engineer told Dr. Subramanian to do so. Recognizing this glaring problem, Intel strains credibility. According to Intel, *if* the information came from Dr. Hull, Intel’s justification for relying on Dr. Hull is that [REDACTED]
[REDACTED]. Resp. at 13. But talking to a person who [REDACTED]
[REDACTED] is not reasonable or reliable. *If* the information came from Dr. Klepser, Intel’s justification for relying on Dr. Klepser is that he [REDACTED]. *Id.* at 14. Relying on a person who talks as if he is familiar with the relevant circuitry but, as discussed above, testified that [REDACTED]. With regard to Dr. Schelmbauer, though he was involved in designing circuits, there is no evidence that Dr. Subramanian received any information from Dr. Schelmbauer regarding transistor widths. Once again, there is no way for anyone to test the reasonableness of what Dr. Subramanian did—*ignoring* [REDACTED]. And it is not a reliable methodology for Dr. Subramanian to do so.

RF Signal Amplitude: Again, in order to justify Dr. Subramanian making up a value, Intel asserts that Dr. Subramanian relies on his “own expertise” and discussions with some

³ Though Dr. Subramanian testified that he did not just take the engineers at the word, he cites no other evidence to support his deviation from Intel schematics and documents.

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unknown former Intel engineer. Resp. at 10. Intel cites to no documentary support for the value Dr. Subramanian used because there is none. Indeed, Intel itself cannot even identify which engineer Dr. Subramanian talked to because it is not in his report nor could Dr. Subramanian remember. Relying on his *subjective* views and what some *unknown* engineer told him without any documentary evidence is not a reliable methodology.

RF Source Resistance: Intel asserts that Dr. Subramanian received information about [REDACTED] from Dr. Hull. Resp. at 11. Not exactly. Though Dr. Subramanian remembered [REDACTED] [REDACTED] Intel omits this. Moreover, Dr. Subramanian holds the unreasonable view that simply because Dr. Hull had [REDACTED] (although not the relevant knowledge), it would be appropriate from him to rely on Dr. Hull. Ex. 3 (Subramanian 10/20/22 Tr.) at 195:13-22. That Dr. Hull [REDACTED] [REDACTED] has nothing to do with the source resistance and does not make Dr. Hull an authority on the proper source resistance. Nevertheless, Dr. Hull did not provide Dr. Subramanian with any documentary evidence related to source resistance. *Id.* 195:23-196:3. Thus, relying on Dr. Hull for the source resistance is not a reliable methodology.

Transistor setup: Intel states that Dr. Subramanian’s deviations did not change his conclusions. Resp. at 16-17. But whether an expert believes changes would affect his ultimate result/conclusion is not the standard for determining whether an expert’s methodology is reliable.

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II. DR. SUBRAMANIAN’S INVALIDITY OPINIONS

A. Dr. Subramanian’s opinions should be excluded under *01 Communiqué*.

Intel relies on *01 Communiqué Lab’y, Inc. v. Citrix Sys., Inc.*, 889 F.3d 735 (Fed. Cir. 2018). But *01 Communiqué* did not abrogate the cases ParkerVision cited in its opening brief nor does Intel argue that it does. Instead, Intel asserts that Dr. Subramanian’s invalidity analysis is proper under *01 Communiqué*. Not so. To the contrary, *01 Communiqué* actually hurts Intel’s position. Intel cites *01 Communiqué* for the unremarkable proposition that a claim can be invalid in view of the prior art if the patentee attempts to expand the scope of the claim too broadly in a manner that includes the prior art. *01 Communiqué*, 889 F.3d at 741-42. But Intel stopped short of the fundamental tenet expressed in *01 Communiqué* that “an accused infringer cannot . . . establish invalidity merely by *pointing to similarities between an accused product and the prior art*.” *Id.* at 742 (emphasis added). Yet, this is exactly what Dr. Subramanian does *repeatedly*. In particular, he points out the similarities between the prior art (Razavi, Traylor, BBA2, RF100, PMB 2407) and Accused Chips in determining that the claim elements are found in the prior art.

- “Under ParkerVision’s infringement theory, [REDACTED], the transistor M5 would satisfy limitation [1b].” ECF No. 177-8 at ¶487.
- “However, [REDACTED]. Under ParkerVision’s infringement theory, therefore, the capacitor immediately following transistor M5 satisfies limitation [1c]. *Id.* at ¶495
- “But under ParkerVision’s infringement theory, [REDACTED] *Id.* at ¶1281
- “[REDACTED] Under ParkerVision’s infringement

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theory, therefore, the capacitor immediately following transistor 406 under control line A satisfies Element [1c].” *Id.* at ¶1282

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] *Id.* at ¶1688

- [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] *Id.* at ¶1698

- “Under ParkerVision’s infringement theory, [REDACTED], the transistor Q49 (and/or Q76) would satisfy limitation [1b].” *Id.* at ¶2058

- “However, [REDACTED]
[REDACTED] *Id.* at ¶2067

- “Nonetheless, [REDACTED] *the charging and minimal discharging of RF100’s capacitors into the loads disclose Element [1f].” Id.* at ¶2087

- “As explained above for Element [1f], [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED] Since ParkerVision’s contentions appear to assume that [REDACTED], then under ParkerVision’s infringement theory, a conventional mixer followed by filters and an amplifier such as disclosed in RF100 alone would likewise satisfy this limitation.” *Id.* at ¶2137

- “As explained above for Element [1f], [REDACTED]
[REDACTED]
[REDACTED] *Id.* at ¶2537

Accordingly, under *01 Communique*, Dr. Subramanian’s invalidity opinions, which relies on the comparison of the Accused Chips and the prior art, should be excluded.

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Dr. Subramanian was required to compare the asserted claims to the prior art and demonstrate, by clear and convincing evidence, that the claim elements were disclosed in the prior art and could be combined in a way that renders the claims obvious. It is undisputed that he did not. Notably, citing *01 Communique*, the Eastern District of Texas excluded the same type of expert testimony that Dr. Subramanian seeks to present to the jury in this case. *See Realtime Data LLC v. EchoStar Corp.*, No. 6:17-CV-00084-JDL, 2018 U.S. Dist. LEXIS 202797, at *10 (E.D. Tex. 2018). Just like the expert in *Realtime*, Dr. Subramanian advances a “legally flawed” analysis that would risk juror confusion and should be rejected:

For each element of an Asserted Claim, [defendant’s expert]: (1) identifies features in the Accused Products that [patentee’s expert] contends reads on that claim element; (2) opines the prior art has features ‘analogous’ to the features identified by [patentee’s expert]; and (3) concludes the Asserted Claim must therefore be invalid. This type of analysis is legally flawed and risks possible jury confusion.

Id. The court held that “this testimony is improper and can be excluded by the Court.” *Id.*

Finally, Intel attempts to overcome the court’s clear holding in *Genband*⁴ (cited in ParkerVision’s opening brief) by blinding quoting *Metaswitch*⁵ and asserting that *Metaswitch* “undermines” ParkerVision’s argument for striking Dr. Subramanian’s invalidity opinions. *See Resp.* at 23. Intel is wrong. Notably, Intel provides no discussion of the court’s rulings in *Metaswitch* because it is unhelpful to Intel.

Genband and *Metaswitch* involve the same parties. In *Genband*, the court held that “if an expert disagrees with the principles and methods embodied in an adverse party’s infringement theory, that expert is not permitted under Rule 702 to apply the adverse party’s infringement

⁴ *Genband US LLC v. Metaswitch Networks Corp.*, Case No. 2:14- cv-00033, 2015 U.S. Dist. LEXIS 176746 (E.D. Tex. Sept. 30, 2015).

⁵ *Metaswitch Networks Ltd. v. Genband US LLC*, Case No. 2:14-cv-744, 2016 U.S. Dist. LEXIS 28407 (E.D. Tex. Mar. 7, 2016); *compare with Metaswitch Networks Ltd. v. Genband US LLC*, Case No. 2:14-cv-744, 2016 U.S. Dist. LEXIS 28289 (E.D. Tex. Mar. 7, 2016).

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theory to affirmatively conclude that the patent is invalid.” 2015 U.S. Dist. LEXIS 176746, at *7-8. The court ruled that Metaswitch’s invalidity expert could not rely on Genband’s infringement theories (which he disagreed with) to support an affirmative opinion that the patent was invalid. *Id.* at *8-9. This is *identical* to the facts here where Intel’s expert, Dr. Subramanian, does not agree with ParkerVision’s infringement theory yet wants to use that theory to conclude the asserts patents are invalid. Under *Genband*, Dr. Subramanian’s opinions should be excluded.

In *Metaswitch*, the court reiterated its holding in *Genband* and clarified that its “holding is premised on the fact that a party alleging invalidity must meet an affirmative burden of proof to show that the patent is invalid.” *Metaswitch* 2016 U.S. Dist. LEXIS 28289 at *18. *Metaswitch* noted that its holding does not apply in the context of *damages* where the party does not bear the burden of proof. *Id.* Intel quotes the Court’s analysis regarding whether to exclude the testimony of defendant’s *damages* expert, not an invalidity expert for the party who bears the burden of proof. The *Metaswitch* court’s refusal to exclude the opinion related to damages is completely *irrelevant* to whether this Court should exclude Dr. Subramanian’s invalidity opinions.

In *Metaswitch*, MetaSwitch moved to strike opinions of Defendant Genband’s damages expert, arguing that he relied on the guidance of Genband’s technical expert about non-infringing alternatives, but failed to apply that guidance in a consistent manner. *Metaswitch*, 2016 U.S. Dist. LEXIS 28407, at *6. The Court concluded that while “[t]he degree of consistency” may be fertile ground for cross examination, the opinions were allowable “under Rule 702 because they are not clearly contradictory nor inconsistent with his stated analysis.” *Id.* The court’s holding, related to damages, is inapplicable the striking of an expert’s invalidity opinions. Dr. Subramanian’s opinions, however, fall squarely within the prohibition set forth in *Genband* and should be excluded.

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Dated: November 22, 2022

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 22nd day of November, 2022, a true and correct copy of the foregoing document was forwarded by electronic mail to all counsel of record for Defendant Intel Corporation.

Dated: November 22, 2022

/s/ Raymond W. Mort, III
Raymond W. Mort, III