UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

MICROCHIP TECHNOLOGY INC.,
Petitioner,
v.

APTIV TECHNOLOGIES AG,
Patent Owner.

Patent No. 11,176,072

Inter Partes Review No. IPR2024-00230

PATENT OWNER'S OPPOSITION TO PETITIONER'S MOTION TO EXCLUDE EVIDENCE

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I. DR. HOUH'S DECLARATIONS (EXS. 2001 AND 2019) SHOULD NOT BE EXCLUDED

Petitioner offers no basis for excluding any portion of Dr. Houh's declaration testimony—let alone the "entirety" of his two declarations. (Motion (Papers Nos. 42, 43), 1.) The Motion is premised on Petitioner's unduly narrow proposal for the level of ordinary skill, which was rejected in the Institution Decision. (DI (Paper 12), 8-10.) Petitioner does not dispute that the testimony should not be excluded if the Board again rejects Petitioner's proposed level of skill. (Motion, 1-2 ("*If* the Board agrees …")(emphasis added).) Moreover, regardless of the level of skill, Petitioner's concerns go to the weight of Dr. Houh's testimony—which the Board can readily evaluate—not to its admissibility. Petitioner's Motion as it relates to Dr. Houh's testimony should therefore be denied.

A. Dr. Houh Rendered His Opinions From the Perspective of a POSITA

Petitioner argues that Dr. Houh's declarations are "irrelevant," and should be excluded in their entirety, because Dr. Houh's opinions applied the Patent Owner's (and the DI's) version of the level of ordinary skill, rather than Petitioner's overly restrictive version. (Motion, 1-3.)

Patent Owner's proposed level of skill is applicable here for the reasons set forth in the POR and sur-reply. (POR (Paper 25), 3-5; Sur-Reply (Paper 40), 20-

21.) But even if the Board does not again adopt Patent Owner's proposed level of skill, it would not merit excluding Dr. Houh's testimony, because the parties' proposed levels of skill overlap substantially. As Petitioner put it: "little difference exists between the parties' definitions and the prior art analysis is substantially the same." (Reply (Paper 30), 3.) For example, as Petitioner acknowledges, the parties "agree on education and that some education/work experience can trade off," and that either "several years" or "two years" of work experience would be necessary. (Reply, 2-3.) There is no dispute that Dr. Houh's opinions are provided under these mutually agreed-upon POSITA qualifications. (*See* EX2019, ¶¶26-30.)

While Petitioner proposes a more "granular" level of skill that presumes *a priori* knowledge of specific USB documents and concepts, Reply at 3, Dr. Houh testified that the Petitioner's additional requirements are not reflective of the true level of skill applicable to the patents. (EX1084, 95:14-96:11.) Moreover, Dr. Houh testified (and Petitioner does not dispute) that a POSITA under either party's definition would have been able to review, understand, and apply the USB standards and specifications as relevant to the challenged patent. (EX1084, 91:13-92:14, 94:24-95:8, 100:17-103:19.) Thus, even if the Board were to adopt Petitioner's proposed level of skill, Dr. Houh's testimony is still relevant and

probative. Any additional critique by Petitioner of Dr. Houh's testimony would go to the weight of the testimony, not its admissibility.

B. Dr. Houh is a POSITA

Petitioner additionally argues that Dr. Houh's declarations should be excluded because Dr. Houh himself does not meet Petitioner's specific proposed level of ordinary skill. (Motion, 3-5.) Dr. Houh is a POSITA, and should not be excluded on that basis, for reasons analogous to those described above. For example, Patent Owner's proposed level of skill is applicable, and was adopted by the Board in the Institution Decision; and Petitioner does not dispute that Dr. Houh is a POSITA under at least that level of skill.

Dr. Houh also meets Petitioner's proposed level of skill, at least because his experiences and education provide him with the ability to understand and apply USB standards and technologies. (EX1084, 79:22-80:19, 83:7-84:7, 100:20-101:22.) Petitioner agreed that a "relevant advanced degree," which certainly includes Dr. Houh's Ph.D. in networking, could substitute for specific work experience to meet the level of ordinary skill. (Petition (Paper 1), 23.) Moreover, Dr. Houh testified to his familiarity with USB concepts, and to the "high overlap" between USB protocol concepts and other communications concepts and protocols, such as networking protocols, which Dr. Houh is more specifically experienced with. (EX1084, 83:7-88:12, 100:20-101:22.) Petitioner does not dispute Dr.

Houh's testimony, or provide any reason why Dr. Houh's education and experience would render him incapable of understanding and applying USB protocol concepts. (*See* EX1084, 83:7-88:12; EX2001, Exh. A; EX2019, ¶¶ 3-16.)

Regardless, the Board has recognized that "there need not be a perfect match between the expert's qualifications and the patent at issue." *Nestlé Healthcare Nutrition, Inc. v. Steuben Foods, Inc.*, IPR2015-00249, Paper 76 at 24 (PTAB June 2, 2016) (citing *SEB S.A. v. Montgomery Ward & Co.*, 594 F.3d 1360, 1373 (Fed. Cir. 2010)). And in any event, "the wholesale exclusion of a witness's declarations is rarely called for in a proceeding before the Board;" again, the Board can consider Dr. Houh's qualifications as appropriate in determining the weight to be given his testimony. *Ascend Performance Materials Operations LLC v. Samsung SDI Co., Ltd.*, IPR2020-00349, Paper 53 at 11 (PTAB July 15, 2021) (vacated on other grounds, Paper 57 (Nov. 1 2021)).

C. Dr. Houh's Secondary Considerations Testimony Should Not be Excluded

Dr. Houh's testimony on secondary considerations is both relevant and probative. Drawing on his experience and education in networking technologies, *see* EX2019 at ¶¶3-16, Dr. Houh reviewed the record and offered detailed analysis on several key issues: (1) the operation of Aptiv's Dual Role Hub and its nexus to the challenged claims; (2) the technical challenges introduced by CarPlay and similar platforms, particularly in light of the technical requirements of the

functionality that automakers sought to implement; (3) the difficulties Microchip and its engineers encountered in developing a workable solution; and (4) the functionality of Microchip's eventual CarPlay product and its clear parallels to Aptiv's design. Each of these topics bears directly on the secondary considerations analysis. Dr. Houh's opinions are especially valuable in clarifying the technical record—much of which is couched in specialized terminology—particularly in light of Petitioner's own objections to the "jargon, acronyms, and shorthand" used in the underlying documents. (Motion, 13).

Moreover, any risk of prejudice is minimal in this context, as the Board is well-equipped to evaluate Dr. Houh's testimony and assign it appropriate weight. *See e.g. Vifor Fresenius Med. Care Renal Pharma Ltd. v. Lupin Atlantis Holdings SA*, No. CV 18-390 (MN), 2020 WL 4699050, at *3 (D. Del. Aug. 13, 2020) (Denying motion to exclude expert testimony regarding secondary considerations in the context of a bench trial because "it is plain the Court can address with minimal prejudice any assertion that a particular piece of testimony is outside an expert's area of expertise, [and] assess whether it supports the assertion that it supports a finding that objective indicia undermine Plaintiffs' obviousness contention."); *Braun Melsungen AG v. Terumo Med. Corp.*, 749 F.Supp.2d 210, 223 (D. Del. 2010) (same).

II. PETITIONER'S OBJECTIONS TO EXHIBITS BEYOND DR. HOUH'S DECLARATION ARE UNGROUNDED

Petitioner's remaining objections underscore its broader disregard for the legal significance of secondary considerations in the obviousness inquiry. Contrary to Petitioner's characterization, these are not "collateral matters." The Federal Circuit has made clear that objective indicia are an integral component of the obviousness analysis, not an afterthought. *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1358 (Fed. Cir. 2013) ("[C]onsideration of the objective indicia is *part of* the whole obviousness analysis, not just an afterthought.") (emphasis in original). "Objective indicia of nonobviousness play a critical role in the obviousness analysis" and "'can be the most probative evidence of nonbviousness in the record, [enabling] the court to avert the trap of hindsight.'" *Id.* at 1358 (quoting *Crocs, Inc. v. Int'l Trade Comm'n*, 598 F.3d 1294, 1310 (Fed. Cir. 2010)). These indicia include, among others, copying, long-felt but unmet need, failure of others, commercial success, unexpected results, industry licensing, and pre-invention skepticism. *See In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998). Each of the exhibits to which Petitioner objects bears directly on nexus or one or more of these well-established objective indicia and is therefore plainly relevant to the secondary considerations analysis.

Petitioner's repeated contention that CarPlay is irrelevant is likewise entirely unfounded. As demonstrated by the very evidence to which Petitioner objects,

automakers' requirements for a viable CarPlay solution were ***the*** motivating factor behind the development of the claimed invention, the factor that motivated others to try and fail to develop a solution, the reason for the success of Patent Owner's embodying product, and the reason Petitioner itself chose to copy Patent Owner's embodying product. (POR, 54-72.) Indeed, the specification describes CarPlay in all but name: "Recently, the system level design thinking has shifted towards viewing smart phones as the USB Host, and any device connecting thereto as the USB Device. . . . This presents some problems for automotive systems. . . . Automotive manufacturers desire compatibility with smart phones and are therefore motivated to adapt to this changing technology. A redesign of the USB architecture in the vehicle is thus necessary such that the vehicle can act either as the USB Host . . . or USB Device . . . ." '072 Patent at 2:65-3:20.

III. THE DISTRICT COURT TRIAL TESTIMONY (EXHIBITS 2002-2003, 2017, AND 2040-2043) SHOULD NOT BE EXCLUDED

Petitioner's general objections—based on relevance, prejudice, foundation, and hearsay—to testimony from the prior trial are unfounded. Petitioner was a party to that trial, represented by experienced counsel, and had a full and fair opportunity to object to the introduction of any evidence and to cross-examine any witnesses providing testimony. The testimony is offered here for the same purposes as at trial: (1) to show the operation of Aptiv's Boston 2 chip, which was accused of infringement; (2) to establish the technical and commercial context

motivating the chip's development, a key aspect of Aptiv's noninfringement defense; (3) to document Microchip's failed attempts to create a viable CarPlay product, which supported Aptiv's case; and (4) to demonstrate the commercial success of the Boston 2 chip, which underpinned Petitioner's own damages theory.

Petitioner's objections to the prior trial transcripts are both meritless and internally inconsistent. Petitioner simultaneously claims the testimony lacks sufficient context and that it is too burdensome to contextualize. (Mot. at 8.). In reality, Patent Owner has cited specific, narrowly tailored portions of the trial record addressing discrete issues relevant to this proceeding. These excerpts are self-contained and require no additional context to be understood. But to the extent Petitioner believed further context was required, Petitioner—having been a party to the prior trial and having cross-examined each of the witnesses—was equally well-positioned to supply it. The record was complete and accessible to both parties.

Petitioner's hearsay objections are likewise unavailing. By presenting the testimony of its experts, Dr. Zatkovich and Stephen Becker, at trial and repeatedly relying on that testimony during closing argument, Petitioner adopted those statements as its own. As such, the testimony—which Aptiv now offers against Microchip—qualifies as an admission by a party-opponent and falls outside the definition of hearsay under Federal Rule of Evidence 801(d)(2). *See e.g.*, *In re*

Hanford Nuclear Rsrv. Litig., 534 F.3d 986, 1016 (9th Cir. 2008) ("Dr. Hoffman's testimony at the first bellwether trial was an admission of a party opponent under Federal Rule of Evidence 801(d)(2)(C). . . . Plaintiff cannot now exclude trial testimony that she, herself, proffered." (citation omitted)); *Abstrax, Inc. v. Dell, Inc.,* No. 2:07-CV-221-DF, 2009 WL 10677355, at *1 (E.D. Tex. Oct. 9, 2009) ("[T]he statements made by [defendant's] expert in the Lucent litigation are not hearsay. They are admissions.")

IV. EXHIBITS 2005-2010 AND 2031-2035 SHOULD NOT BE EXCLUDED

Petitioner also objects to internal Microchip communications that show that its engineers struggled to comprehend Aptiv's solution and were unable to devise a viable alternative that met automakers' technical requirements. These communications bear on additional objective indicia, including the failure of others and skepticism by skilled artisans. *See Apple Inc. v. Samsung Elec. Co., Ltd.*, 816 F.3d 788, 805 (Fed. Cir. 2016) ("[E]xpression of disbelief by experts and then later acquiescence to the invention may be strong evidence of nonobviousness.") (vacated in part on other grounds, 839 F.3d 1034 (Fed. Cir. 2016)).

Petitioner argues that the individuals expressing skepticism were not engineers and were therefore irrelevant. This assertion is false. Most of these individuals were, in fact, engineers with substantial experience. Brigham Steele,

an electrical engineer with a decade of post-degree experience[1], stated that automakers' demands "may be physically outside the capabilities of ANY USB system" (EX2005, 1-2); Chris Behal, an engineer with nearly two decades of post-degree experience[2], advised customers that while non-data, charging-only ports were feasible, "we saw no way for [data connectivity] to actually work." (EX2006, 2). He also noted that "the OEM's do not have a good understanding of what is possible with CarPlay… all they know is they want CarPlay AND they want additional connectivity to [the] head unit [and] other devices." (*Id.*) Dave Sroka, an engineer (EX2040 at 245:12-17) and a contributor to the USB 3.1 standard[3], acknowledged that "[w]hen persistent USB is a requirement, we definitely have run into a wall." (EX2007, 1).

Even if some of those included on these email threads were not engineers, the documents themselves remain relevant because Microchip employed roughly 2,000 engineers in its wired connectivity group alone and controlled nearly 100% of the U.S. market for automotive USB hub chips. EX2040 at 195:3-21; 212:2-6. Given the clear customer demand and sustained frustration from its sales unit over

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[1] *See* Patent Owner Response, 68 n. 4.

[2] https://www.linkedin.com/in/chris-behal-2b7582a/details/experience/

[3] *See* *https://manuais.iessanclemente.net/images/b/bc/USB_3_1_r1.0.pdf* at iv.

the course of a year, it defies logic that Microchip would simply allow tens of millions of dollars in sales to slip away without exploring a viable solution.

Microchip's argument that real-world individuals cannot substitute for the hypothetical POSITA is likewise unfounded—and necessarily so—as it would render the entire objective indicia inquiry meaningless. Objective indicia exist precisely to serve as a real-world check on the obviousness analysis and to "avert the trap of hindsight." *Leo Pharm. Prods.*, 726 F.3d at 1358 (quoting *Crocs*, 598 F.3d at 1310). Requiring skepticism or failure from a hypothetical individual—a person who by definition does not actually exist—sets an impossible bar for this real-world inquiry.

Microchip's assertion that these emails are misleading because Apple would not permit a bridge is equally baseless. The email on which it relies—a marketer's summary of a meeting with Apple—states only that Apple desires a "'direct path' to the head unit." EX1100. The use of a USB bridge provides just such a "direct path" because the bridge does not provide any USB function, but instead merely enables a direct host-to-host connection between the consumer device and the head unit.

Ultimately, evidence demonstrating that individuals at Microchip—the largest provider of automotive USB hub chips by far—specifically tasked with designing and selling automotive USB hub chips were unable to design chips to

meet automakers' requirements and were skeptical that it was possible is almost uniquely probative of the issues for which it is offered.

V. EXHIBITS 2024-2025 AND 2027-2028 SHOULD NOT BE EXCLUDED

Microchip's objections to Exhibits EX2024–2025 and EX2027–2028—on grounds of relevance, incompleteness, and alleged risk of confusion—are unfounded. These documents directly reflect the operation of Aptiv's Boston 2 chip and are central to establishing nexus, a critical element of the secondary considerations analysis. Separately, the documents were reviewed by Dr. Houh and informed his nexus opinions. It is well-established that experts may rely on materials in forming their opinions regardless of whether those materials are themselves admissible. *See* Fed. R. Evid. 703 ("If experts in the particular field would reasonably rely on those kinds of facts or data in forming an opinion on the subject, they need not be admissible for the opinion to be admitted."). There is no basis for excluding these exhibits.

VI. EXHIBITS 2026, 2030, AND 2032 SHOULD NOT BE EXCLUDED

Petitioner's objections to Exhibits EX2026 and EX2030—internal Microchip product documents—are misplaced. These documents are highly probative of Microchip's repeated efforts to replicate Aptiv's successful product and are directly relevant to copying, a well-recognized objective indicium of non-obviousness. Similarly, Exhibit EX2032 (addressed separately above) confirms

that Microchip initiated its development efforts with the specific intent to emulate Aptiv's design, based on its understanding of Aptiv's implementation at the time, and therefore relates directly to Microchip's copying. Each document therefore certainly meets the "'low threshold for relevancy.'" *Apple Inc. v. DSS Tech. Mgmt., Inc.*, IPR2015-00373, Paper 39 at 36 (June 17, 2016) (quoting *OddzOn Prods., Inc. v. Just Toys, Inc.*, 122 F.3d 1396, 1406-07 (Fed. Cir. 1997)).

VII. EXHIBITS 2036-2039 SHOULD NOT BE EXCLUDED

With its objections to the declaration of Michael Dreon and its accompanying exhibits, Petitioner again reveals its fundamental misunderstanding of the secondary considerations inquiry. Evidence related to the PACE award is direct evidence of praise for Aptiv's solution based specifically on the very innovation that is the subject of the challenged claims. This is prototypical evidence of the objective indicia of industry praise. *See e.g., Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1333 (Fed. Cir. 2019) (crediting award from the National Restaurant Association for a claimed oil quality sensor).

In his declaration, Mr. Dreon provided several attachments related to Aptiv's receipt of the PACE award and authenticated them based on his personal knowledge. He specifically confirmed that Exhibits B and C—the judges' citation and the awards ceremony video—accurately represent what they purport to be. This testimony is sufficient to establish both foundation and authentication. *In re*

WorldCom, Inc., 357 B.R. 223, 228 (S.D.N.Y.2006) (to authenticate a document, a witness with personal knowledge to that effect need only testify "that the document is what it purports to be."); *see also* Fed.R.Evid. 901(b)(1) (permitting authentication by testimony of a witness with knowledge "that a matter is what it is claimed to be"). Petitioner chose not to depose Mr. Dreon to challenge his statements or inquire further, and cannot now challenge the accuracy of his testimony.

Petitioner's hearsay objections are likewise without merit. Aptiv does not offer Exhibits 2038 and 2039 for the truth of any statements describing how the Dual Role Hub operates—Dr. Houh's analysis of other Aptiv documents provides that support. Instead, the exhibits are submitted for the non-hearsay purpose of showing the public rationale given for awarding the PACE prize to Aptiv's product. This evidence is directly relevant to the nexus analysis, as it demonstrates industry recognition and praise tied to the claimed invention.

VIII. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny Petitioner's Motion to Exclude.

Dated: March 31, 2025

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Certificate of Service (37 C.F.R. § 42.6(e)(4))

I hereby certify that the attached PATENT OWNER'S OPPOSITION TO PETITIONER'S MOTION TO EXCLUDE EVIDENCE was served on the below date via e-mail (by consent) to the following counsel of record for the Petitioner:

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