United States Court of Appeals for the Federal Circuit

HALO ELECTRONICS, INC.,
Plaintiff-Appellant,

v.

PULSE ELECTRONICS, INC. AND PULSE ELECTRONICS CORPORATION,
Defendants-Cross Appellants.

2013-1472, -1656

Appeals from the United States District Court for the District of Nevada in No. 07-CV-0331, Judge Philip M. Pro.

Decided: October 22, 2014

WILLIAM R. WOODFORD, Fish & Richardson P.C., of Minneapolis, Minnesota, argued for plaintiff-appellant. With him on the brief were MICHAEL J. KANE of Minneapolis, Minnesota, and CRAIG E. COUNTRYMAN, of San Diego, California.

MARK L. HOGGE, Dentons US LLP, of Washington, DC, argued for defendants-cross appellants. With him on the brief were SHAILENDRA K. MAHESHWARI, CHARLES R. BRUTON, and RAJESH C. NORONHA.

Before LOURIE, O'MALLEY, and HUGHES, *Circuit Judges.*

Opinion for the court filed by *Circuit Judge* LOURIE.

Concurring opinion filed by *Circuit Judge* O'MALLEY, with whom *Circuit Judge* HUGHES joins.

LOURIE, *Circuit Judge.*

Halo Electronics, Inc. ("Halo") appeals from the decisions of the United States District Court for the District of Nevada (1) granting summary judgment that Pulse Electronics, Inc. and Pulse Electronics Corp. (collectively "Pulse") did not sell or offer to sell within the United States the accused products that Pulse manufactured, shipped, and delivered to buyers outside the United States, and thus that Pulse did not directly infringe Halo's U.S. Patents 5,656,985 (the "'985 patent"), 6,297,720 (the "'720 patent"), and 6,344,785 (the "'785 patent") (collectively "the Halo patents"); and (2) holding that Pulse's infringement of the Halo patents with respect to certain accused products that Pulse sold and delivered in the United States was not willful. *See Halo Elecs., Inc. v. Pulse Eng'g, Inc.*, 810 F. Supp. 2d 1173, 1205–08 (D. Nev. 2011) (sale and offer for sale); *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, No. 2:07-CV-00331, 2013 WL 2319145, at *14–16 (D. Nev. May 28, 2013) (willfulness).

Pulse cross-appeals from the court's decisions (1) construing the claim limitation "electronic surface mount package" in the Halo patents; (2) construing the claim limitation "contour element" in Pulse's U.S. Patent 6,116,963 (the "'963 patent") that Pulse asserted in its counterclaim; and (3) holding that the asserted claims of the Halo patents were not invalid for obviousness. *See Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 721 F. Supp. 2d 989, 998–1001 (D. Nev. 2010) (claim construction); *Halo*, 2013 WL 2319145, at *1–7 (obviousness); *Halo Elecs., Inc. v.*

Pulse Elecs., Inc., No. 2:07-CV-00331, 2013 WL 4458754, at *1–3 (D. Nev. Aug. 16, 2013) (obviousness).

Because we conclude that Pulse did not sell or offer to sell within the United States those accused products that Pulse manufactured, shipped, and delivered outside the United States, we affirm the summary judgment of no direct infringement of the Halo patents by those products. In addition, we find Halo's argument on appeal concerning the issue of willfulness unpersuasive and accordingly affirm the judgment of no willful infringement of the Halo patents with respect to products that were delivered in the United States. On the cross-appeal, because we find no reversible error in the contested claim constructions, we affirm the judgment of direct infringement of the Halo patents with respect to products that Pulse delivered in the United States and the judgment of inducement with respect to products that Pulse delivered outside the United States but were ultimately imported into the United States by others, as well as the judgment of noninfringement of Pulse's '963 patent. We also affirm the judgment that the asserted claims of the Halo patents were not invalid for obviousness.

BACKGROUND

Halo is a supplier of electronic components and owns the '985, '720, and '785 patents directed to surface mount electronic packages containing transformers for mounting on a printed circuit board inside electronic devices such as computers and internet routers. The Halo patents are all derived from an application filed on August 10, 1995. At issue here are claims 6–8 and 16 of the '985 patent, claims 1 and 6 of the '720 patent, and claims 40 and 48 of the '785 patent (collectively "the asserted claims"). Claim 6 of the '985 patent is representative and reads as follows:

> 6. An electronic surface mount package for mounting on a printed circuit board in an elec-

> tronic device, said electronic surface mount package comprising:
>
> a one piece construction package having a side wall and an open bottom,
>
> a plurality of toroid transformers carried within said package by a soft silicone material, said toroid transformers each having wires wrapped thereon,
>
> a plurality of terminal pins molded within and extending from the bottom of said package, each of said pins extending through a bottom of said side wall and having a notched post upon which said wires from said transformers are wrapped and soldered thereon, respectively.

'985 patent col. 4 ll. 19–33.

Pulse, another supplier of electronic components, designs and sells surface mount electronic packages and manufactures those products in Asia. Some of Pulse's products were delivered by Pulse to customers in the United States, but the majority of them were delivered outside the United States, for example, to contract manufacturers for companies such as Cisco. Those contract manufacturers incorporated the electronic packages supplied by Pulse into end products overseas, including internet routers manufactured for Cisco, which were then sold and shipped to consumers around the world.

For those products that Pulse delivered abroad, all purchase orders were received at Pulse's sales offices abroad. *Halo*, 810 F. Supp. 2d at 1207. However, Pulse engaged in pricing negotiations in the United States with companies such as Cisco, and Pulse's employees in the United States approved prices that its agents quoted to foreign customers when the quoted prices fell below certain thresholds. Pulse also engaged in other activities in the United States, including meeting regularly with

Cisco design engineers, sending product samples to Cisco for pre-approval, attending sales meetings with its customers, and providing post-sale support for its products.

Although Cisco outsourced its manufacturing activities to foreign contract manufacturers, Cisco negotiated with its component suppliers the prices that its contract manufacturers would pay when purchasing component parts. As one of Cisco's component suppliers, Pulse executed a general agreement with Cisco that set forth manufacturing capacity, low price warranty, and lead time terms. J.A. 15135–37. However, that general agreement did not refer to any specific Pulse product or price. Cisco typically sent a request for quote to its component suppliers and Pulse responded with the proposed price and minimum quantity for each product as identified by its part number. After further negotiation, Cisco issued the agreed-upon price, projected demand, and percentage allocation to Pulse for each product for the upcoming quarter. The percentage allocation divided Cisco's projected quarterly demand among its suppliers. Cisco then communicated the price and allocation to its contract manufacturers in Asia, and the contract manufacturers were expected to apply the Cisco price and allocation when ordering components from Pulse and other suppliers.

Upon receipt of purchase orders abroad, Pulse delivered the electronic package products from its manufacturing facility in Asia to Cisco contract manufacturers, also located in Asia, which then paid Pulse. After assembling the end products, the contract manufacturers submitted invoices to Cisco that itemized the cost of Pulse products and other components that were incorporated into the Cisco end products. Cisco then paid the contract manufacturers for the end products.

Pulse allegedly knew of the Halo patents as early as 1998. In 2002, Halo sent Pulse two letters offering licens-

es to its patents, but did not accuse Pulse of infringement in those letters. J.A. 5953–54. The president of Pulse contacted a Pulse engineer, who spent about two hours reviewing the Halo patents and concluded that they were invalid in view of prior Pulse products. Pulse did not seek an opinion of counsel on the validity of the Halo patents at that time and continued to sell its surface mount electronic package products. A Pulse witness later testified that she was "not aware of anyone in the company . . . that made a conscious decision" that "it was permissible to continue selling" those products. J.A. 2245.

In 2007, Halo sued Pulse for patent infringement. Pulse denied infringement and challenged the validity of the Halo patents based on obviousness and other grounds. Pulse also counterclaimed that Halo infringed Pulse's '963 patent directed to microelectronic connectors.

The district court first construed the disputed claim limitations in the Halo patents and Pulse's '963 patent. Relevant to this appeal, the court construed "electronic surface mount package" in the preamble of the Halo patent claims as non-limiting. *Halo*, 721 F. Supp. 2d at 999–1001. The court then further construed the term to mean "an electronic device configured to attach to the surface of a DC voltage only printed circuit board." *Id.* In addition, the court construed "contour element" in the '963 patent claims to mean "a raised or recessed feature that physically contacts the bend of an electrical lead both before and after the modular plug is inserted into the cavity." *Id.* at 998–99. In view of that latter construction, the parties stipulated to a judgment of noninfringement of the Pulse '963 patent. *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, No. 2:07-CV-00331, ECF No. 215 (D. Nev. Sept. 2, 2010).

Pulse moved for summary judgment that it did not directly infringe the Halo patents by selling or offering to sell products that Pulse manufactured, shipped, and

delivered outside the United States. The district court granted the motion, holding that those products were sold and offered for sale outside the United States and beyond the scope of § 271(a). *Halo*, 810 F. Supp. 2d at 1206–08.

The parties next proceeded to trial on Halo's claims of (1) direct infringement by products that Pulse shipped into the United States and (2) inducement of infringement by products that Pulse shipped outside the United States but were incorporated into end products that were ultimately imported into the United States. The jury found that: (1) Pulse directly infringed the Halo patents with products that it shipped into the United States; (2) it induced others to infringe the Halo patents with products that it delivered outside the United States but ultimately were imported into the United States in finished end products; (3) it was highly probable that Pulse's infringement was willful; and (4) the asserted claims of the Halo patents were not invalid for obviousness. *Halo*, 2013 WL 2319145, at *1; *Halo Elecs., Inc. v. Pulse Elecs., Inc.*, No. 2:07-CV-00331, ECF No. 482 (D. Nev. Nov. 26, 2012). The jury awarded Halo $1.5 million in reasonable royalty damages. *Id.*

In response to Pulse's post-trial motion, the district court concluded that the objective component of a willfulness inquiry was not satisfied because Pulse "reasonably relied on at least its obviousness defense" and Pulse's unsuccessful obviousness defense was not "objectively baseless." *Halo*, 2013 WL 2319145, at *15. The court therefore held that Pulse's infringement was not willful. *Id.* at *16.

Pulse also moved for JMOL of invalidity for alleged obviousness of the Halo patent claims, which the district court denied. *Halo*, 2013 WL 2319145, at *1–7; *Halo*, 2013 WL 4458754, at *1–3. The court reasoned that, because Pulse did not file a pre-verdict motion under Fed. R. Civ. P. 50(a) on the issue of obviousness, Pulse had

waived its right to challenge the jury's implicit factual findings underlying the nonobviousness general verdict. *Id.* While noting that "each of the elements present in the asserted patent claims also were present in the prior art, except the standoff element" in two of the asserted claims, *Halo*, 2013 WL 2319145, at *3, the court presumed that the jury resolved all factual disputes relating to the scope and content of the prior art and secondary considerations in Halo's favor and concluded that the asserted claims were not invalid for obviousness based upon those presumed factual findings, *id.* at *3–7.

Halo timely appealed and Pulse timely cross-appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

I. Sale and Offer for Sale

We review the district court's grant or denial of summary judgment under the law of the regional circuit, here the Ninth Circuit. *Lexion Med., LLC v. Northgate Techs., Inc.*, 641 F.3d 1352, 1358 (Fed. Cir. 2011). Applying the law of the Ninth Circuit, we review the grant or denial of summary judgment *de novo*. *Humane Soc'y of the U.S. v. Locke*, 626 F.3d 1040, 1047 (9th Cir. 2010). Summary judgment is appropriate when, drawing all justifiable inferences in the nonmovant's favor, "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); *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

Halo argues that the district court erred in granting summary judgment of no direct infringement with respect to products that Pulse delivered abroad. Halo contends that those products were sold and offered for sale within the United States because negotiations and contracting activities occurred within the United States, which resulted in binding contracts that set specific terms for price

and quantity. Halo argues that the location of the sale or offer for sale should not be limited to the location of delivery. Halo also argues that it suffered economic harm in the United States as a result of Pulse's sales.

Pulse responds that the products at issue were sold or offered for sale outside the United States because those products were manufactured, ordered, invoiced, shipped, and delivered abroad. Pulse maintains that its pricing discussions with Cisco in the United States were merely forecasts and were not a guarantee that Pulse would receive any actual order from any of Cisco's contract manufacturers. Pulse also responds that the district court's holding is consistent with our case law and the presumption against extraterritorial application of United States laws. Pulse contends that Halo improperly sought to expand the geographical scope of § 271(a) to reach activities outside the United States.

We agree with Pulse that the district court did not err in granting summary judgment of no direct infringement with respect to those products that Pulse manufactured, shipped, and delivered outside the United States because those products were neither sold nor offered for sale by Pulse within the United States.

A. Sale

Section 271(a) of the patent statute provides in relevant part that "whoever without authority makes, uses, *offers to sell*, or *sells* any patented invention, *within* the United States . . . infringes the patent." 35 U.S.C. § 271(a) (emphases added); *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 441 (2007) ("It is the general rule under United States patent law that no infringement occurs when a patented product is made and sold in another country."). We first consider whether the products that Pulse manufactured, shipped, and delivered to buyers abroad were *sold within* the United States for purposes of § 271(a).

Our earlier cases addressing the issue of the location of a sale arose in the context of personal jurisdiction. In *North American Philips Corp. v. American Vending Sales, Inc.*, 35 F.3d 1576 (Fed. Cir. 1994), a case involving domestic sales by defendants who shipped products from Texas and California free on board (f.o.b.) to buyers in Illinois, and concerning whether a trial court in Illinois had personal jurisdiction over the defendants, we held that patent infringement occurs where the infringing sales are made. *Id.* at 1577–79 (citing *Beverly Hills Fan Co. v. Royal Sovereign Corp.*, 21 F.3d 1558, 1570–71 (Fed. Cir. 1994)). We stated that:

> [T]he "selling" of an infringing article has both a physical and a conceptual dimension to it. That is to say, it is possible to define the situs of the tort of infringement-by-sale either in real terms as including the location of the seller and the buyer and perhaps the points along the shipment route in between, or in formal terms as the single point at which some legally operative act took place, such as the place where the sales transaction would be deemed to have occurred as a matter of commercial law.

Id. at 1579. We rejected the defendants' argument that the location of the sale was limited to "the place where legal title passe[d] rather than the more familiar places of contracting and performance." *Id.* (citing *Burger King Corp. v. Rudzewicz*, 471 U.S. 462, 478–79 (1985)). And we held that the sale in that case occurred in Illinois where the buyer was located, but "not necessarily only there." *Id.* Thus, under *North American Philips*, a sale may occur at multiple locations, including the location of the buyer, for purposes of personal jurisdiction.

In subsequent cases in which we addressed the issue of liability under § 271(a) rather than personal jurisdiction, we applied similar analyses to determine where a

sale occurred based on factors that included places of contracting and performance. *Litecubes, LLC v. N. Light Prods., Inc.*, 523 F.3d 1353, 1370 (Fed. Cir. 2008); *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1377 (Fed. Cir. 2005). Although the place of contracting may be one of several possible locations of a sale to confer personal jurisdiction, we have not deemed a sale to have occurred within the United States for purposes of liability under § 271(a) based solely on negotiation and contracting activities in the United States when the vast majority of activities underlying the sales transaction occurred wholly outside the United States. For such a sale, one must examine whether the activities in the United States are sufficient to constitute a "sale" under § 271(a), recognizing that a strong policy against extraterritorial liability exists in the patent law. *See Microsoft*, 550 U.S. at 455 ("The traditional understanding that our patent law operate[s] only domestically and do[es] not extend to foreign activities is embedded in the Patent Act itself." (alterations in original) (citation and quotation marks omitted)); *MEMC*, 420 F.3d at 1375–76 ("[T]he reach of section 271(a) is limited to infringing activities that occur within the United States.").

The patent statute does not define the meaning of a "sale" within the United States for purposes of § 271(a). We have stated that "the ordinary meaning of a sale includes the concept of a transfer of title or property." *NTP, Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1319 (Fed. Cir. 2005). Indeed, Article 2 of the Uniform Commercial Code, which is recognized as a persuasive authority on the sale of goods, provides that "[a] 'sale' consists in the passing of title from the seller to the buyer for a price." U.C.C. § 2-106; *see also Black's Law Dictionary* 1364 (8th ed. 2004) (defining "sales" as "[t]he transfer of property or title for a price"). Section 2-106 separately defines a "contract for sale" as including "both a present sale of goods and a contract to sell goods at a future time."

While we have held that a sale is "not limited to the transfer of tangible property" but may also be determined by "the agreement by which such a transfer takes place," *Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1311 (Fed. Cir. 2010) (citing *NTP*, 418 F.3d at 1319), the location of actual or anticipated performance under a "contract for sale" remains pertinent to the transfer of title or property from a seller to a buyer, *see id.* at 1310 (considering the location of delivery and performance under a contract). Consistent with all of our precedent, we conclude that, when substantial activities of a sales transaction, including the final formation of a contract for sale encompassing all essential terms as well as the delivery and performance under that sales contract, occur entirely outside the United States, pricing and contracting negotiations in the United States alone do not constitute or transform those extraterritorial activities into a sale within the United States for purposes of § 271(a).

On undisputed facts, the products under discussion here were manufactured, shipped, and delivered to buyers abroad. *Halo*, 810 F. Supp. 2d at 1207 ("All accused products [at issue] were at no point, in transit or otherwise, in the United States."). In addition, Pulse received the actual purchase orders for those products abroad. Although Pulse and Cisco had a general business agreement, that agreement did not refer to, and was not a contract to sell, any specific product. J.A. 15135–37. While Pulse and Cisco engaged in quarterly pricing negotiations for specific products, the negotiated price and projected demand did not constitute a firm agreement to buy and sell, binding on both Cisco and Pulse. Instead, Pulse received purchase orders from Cisco's foreign contract manufacturers, which then firmly established the essential terms including price and quantity of binding contracts to buy and sell. Moreover, Pulse was paid abroad by those contract manufacturers, not by Cisco,

upon fulfillment of the purchase orders. Thus, substantial activities of the sales transactions at issue, in addition to manufacturing and delivery, occurred outside the United States. Although Halo did present evidence that pricing negotiations and certain contracting and marketing activities took place in the United States, which purportedly resulted in the purchase orders and sales overseas, as indicated, such pricing and contracting negotiations alone are insufficient to constitute a "sale" within the United States.[1]

Any doubt as to whether Pulse's contracting activities in the United States constituted a sale within the United States under § 271(a) is resolved by the presumption against extraterritorial application of United States laws. "The presumption that United States law governs domestically but does not rule the world applies with particular force in patent law." *Microsoft*, 550 U.S. at 454–55. As the Supreme Court has stated on multiple occasions, "[o]ur patent system makes no claim to extraterritorial effect; these acts of Congress do not, and were not intended to, operate beyond the limits of the United States, and we correspondingly reject the claims of others to such control over our markets." *Id.* at 444 (quoting *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972) (quoting *Brown v. Duchesne*, 60 U.S. (19 How.) 183, 195 (1857))) (internal citation and quotation marks omitted).

---

[1] On these facts, we need not reach Halo's argument that the place where a contract for sale is legally formed can itself be determinative as to whether a sale has occurred in the United States because we agree with the district court here that the pricing negotiations and contracting activities in the United States to which Halo points did not constitute the final formation of a definitive, binding contract for sale.

"Foreign conduct is [generally] the domain of foreign law," and in patent cases, foreign law "may embody different policy judgments about the relative rights of inventors, competitors, and the public in patented inventions." *Id.* at 455 (alteration in original) (quoting Brief for United States as *Amicus Curiae* 28). As the Supreme Court has stated, if one desires to prevent the selling of its patented invention in foreign countries, its proper remedy lies in obtaining and enforcing foreign patents. *See Deepsouth*, 406 U.S. at 531 ("To the degree that the inventor needs protection in markets other than those of this country, the wording of 35 U.S.C. §§ 154 and 271 reveals a congressional intent to have him seek it abroad through patents secured in countries where his goods are being used.").

We also reject Halo's argument that the sales at issue occurred in the United States simply because Halo suffered economic harm as a result of those sales. The incurring of harm alone does not control the infringement inquiry. As indicated, Pulse's activities in the United States were insufficient to constitute a sale within the United States to support direct infringement. *See N. Am. Philips*, 35 F.3d at 1579 ("[T]he statute on its face clearly suggests the conception that the 'tort' of patent infringement occurs where the offending act is committed and not where the injury is felt."). Moreover, Halo recovered damages for products that Pulse delivered outside the United States but were ultimately imported into the United States in finished end products based on a theory of inducement.

Following Halo's logic, a foreign sale of goods covered by a U.S. patent that harms the business interest of a U.S. patent holder would incur infringement liability under § 271(a). Such an extension of the geographical scope of § 271(a) in effect would confer a worldwide exclusive right to a U.S. patent holder, which is contrary to the statute and case law. *See, e.g.*, *Power Integrations, Inc. v.*

Fairchild Semiconductor Int'l, Inc., 711 F.3d 1348, 1371–72 (Fed. Cir. 2013) ("[T]he entirely extraterritorial production, use, or sale of an invention patented in the United States is an independent, intervening act that, under almost all circumstances, cuts off the chain of causation initiated by an act of domestic infringement.") (citing *Morrison v. Nat'l Austl. Bank Ltd.*, 561 U.S. 247, 266 (2010) ("But the presumption against extraterritorial application would be a craven watchdog indeed if it retreated to its kennel whenever *some* domestic activity is involved in the case." (emphasis in original))).

We therefore hold that the district court did not err in granting summary judgment that Pulse did not sell within the United States those products that Pulse manufactured, shipped, and delivered abroad.

B. Offer for Sale

We next consider whether Pulse *offered to sell within* the United States those products that Pulse manufactured, shipped, and delivered abroad. An "offer to sell" generally occurs when one "communicate[s] a manifestation of willingness to enter into a bargain, so made as to justify another person in understanding that his assent to that bargain is invited and will conclude it." *MEMC*, 420 F.3d at 1376 (internal quotation marks omitted). We have held that "a description of the allegedly infringing merchandise and the price at which it can be purchased" may constitute an offer to sell. *3D Sys., Inc. v. Aarotech Labs., Inc.*, 160 F.3d 1373, 1379 (Fed. Cir. 1998). *3D Systems* did not, however, involve international transactions and in that case this court considered the issue of offer to sell in a personal jurisdiction context.

More importantly, we have held that "the location of the contemplated sale controls whether there is an offer to sell *within the United States*." *Transocean*, 617 F.3d at 1309 (emphasis added). "In order for an offer to sell to constitute infringement, the offer must be to sell a pa-

tented invention within the United States." *Id.* In *Transocean*, contract negotiations occurred outside the United States for delivery and performance in the United States. This court held that the location of the contemplated sale controlled and that the offer to sell infringed the patent at issue.

The case now before us involves the opposite situation, where the negotiations occurred in the United States, but the contemplated sale occurred outside the United States. We adopt the reasoning of *Transocean* and conclude here that Pulse did not directly infringe the Halo patents under the "offer to sell" provision by offering to sell in the United States the products at issue, because the locations of the contemplated sales were outside the United States. Cisco outsourced all of its manufacturing activities to foreign countries, and it is undisputed that the locations of the contemplated sales were outside the United States. Likewise, with respect to other Pulse customers, there is no evidence that the products at issue were contemplated to be sold within the United States.

An offer to sell, in order to be an infringement, must be an offer contemplating sale in the United States. Otherwise, the presumption against extraterritoriality would be breached. If a sale outside the United States is not an infringement of a U.S. patent, an offer to sell, even if made in the United States, when the sale would occur outside the United States, similarly would not be an infringement of a U.S. patent. We therefore hold that Pulse did not offer to sell the products at issue within the United States for purposes of § 271(a).

For the foregoing reasons, we affirm the summary judgment of no direct infringement with respect to those products that Pulse manufactured, shipped, and delivered abroad.

II. Willfulness

Establishing willful infringement of a valid patent requires a two-prong analysis entailing an objective and a subjective inquiry. First, "a patentee must show by clear and convincing evidence that the infringer acted despite an objectively high likelihood that its actions constituted infringement of a valid patent." *In re Seagate Tech., LLC*, 497 F.3d 1360, 1371 (Fed. Cir. 2007) (en banc). "The state of mind of the accused infringer is not relevant to this objective inquiry." *Id.* Second, if the "threshold objective standard is satisfied, the patentee must also demonstrate that this objectively-defined risk (determined by the record developed in the infringement proceeding) was either known or so obvious that it should have been known to the accused infringer." *Id.* The objective prong is subject to *de novo* review. *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs., Inc.*, 682 F.3d 1003, 1005 (Fed. Cir. 2012).

The district court held here that the objective prong was not met because it concluded that the obviousness defense that Pulse presented at trial was not objectively baseless. Halo challenges that holding mainly by arguing that Pulse did not actually rely on any invalidity defense pre-suit when selling the accused products because Pulse's obviousness defense was developed after the lawsuit was filed in 2007. Halo also contends that after Pulse received Halo's notice letters in 2002, the Pulse engineer only performed a cursory review of the Halo patents and Pulse did not rely on that analysis to assess whether it was infringing a valid patent. Halo asserts that the court erred in holding that the objective prong was not met simply because Pulse raised a non-frivolous obviousness defense.

Pulse responds that the district court properly considered Pulse's post-suit obviousness defense to evaluate the objective risk of infringement of a valid patent. Pulse also

responds that Pulse did not act recklessly pre-suit because Halo did not accuse Pulse of infringement in the 2002 letters and, upon receipt of those letters, Pulse asked its engineer to review the Halo patents, who concluded that the patents were invalid in view of prior Pulse products. Pulse also maintains that its obviousness defense presented at trial raised a substantial question of invalidity and thus was objectively reasonable.

We agree with Pulse that the district court did not err in holding that the objective prong of the willfulness inquiry was not satisfied. "*Seagate*'s first prong is objective, and '[t]he state of mind of the accused infringer is not relevant to this objective inquiry.'" *DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1336 (Fed. Cir. 2009) (alteration in original) (quoting *Seagate,* 497 F.3d at 1371). The court properly considered the totality of the record evidence, including the obviousness defense that Pulse developed during the litigation, to determine whether there was an objectively-defined risk of infringement of a valid patent.

The record shows that although Pulse was ultimately unsuccessful in challenging the validity of the Halo patents, Pulse did raise a substantial question as to the obviousness of the Halo patents. *Spine Solutions, Inc. v. Medtronic Sofamor Danek USA, Inc.*, 620 F.3d 1305, 1319 (Fed. Cir. 2010) (reversing the trial court's denial of JMOL of no willfulness because the infringer raised a substantial question as to the obviousness of the asserted patent). Pulse presented evidence that the prior art disclosed each element of the asserted claims, that it would have been predictable to combine and modify the prior art to create the claimed electronic packages, and that there were differences between the prior art considered by the PTO and the prior art introduced at trial. *See Halo*, 2013 WL 2319145, at *15 (summarizing evidence presented by Pulse on obviousness). Pulse also challenged Halo's evidence of secondary considerations. *Id.*

In light of the record as a whole, we agree with the district court that Pulse's obviousness defense was not objectively unreasonable.

Accordingly, having considered all of Halo's arguments on appeal concerning willfulness and found them unpersuasive, we affirm the district court's judgment that Pulse's infringement of the Halo patents was not willful.

III. Cross-Appeal

Pulse cross-appeals from the district court's construction of the claim limitations "electronic surface mount package" in the Halo patents and "contour element" in Pulse's '963 patent and the resulting judgments of infringement of the Halo patents and noninfringement of Pulse's '963 patent. We have considered Pulse's arguments but find no reversible error in those judgments. We therefore affirm the judgment of direct infringement with respect to products that Pulse delivered in the United States and the judgment of inducement with respect to products that Pulse delivered outside the United States but ultimately were imported into the United States in finished end products, as well as the judgment of noninfringement of Pulse's '963 patent.

In addition, Pulse cross-appeals from the judgment that the asserted claims of the Halo patents were not invalid for obviousness. It is true that the record evidence indisputably shows that almost all the limitations in the asserted claims were known elements of electronic packages that existed in the prior art. However, Pulse did not file a motion during trial under Fed. R. Civ. P. 50(a) on the issue of obviousness before that issue was submitted to the jury and thus waived its right to challenge the jury's implicit factual findings underlying the nonobviousness general verdict. The district court thus correctly presumed that the jury resolved all factual disputes relating to the scope and content of the prior art and secondary considerations in Halo's favor. Based upon

those presumed factual findings, the court did not err in reaching the ultimate legal conclusion that the asserted claims were not invalid for obviousness. We therefore affirm the judgment that the asserted claims of the Halo patents were not invalid for obviousness.

CONCLUSION

We have considered the parties' remaining arguments and conclude that they are without merit. For the foregoing reasons, we affirm the judgment that Pulse did not directly infringe the Halo patents by selling or offering to sell within the United States those accused products that Pulse manufactured, shipped, and delivered outside the United States. We also affirm the judgment that Pulse's infringement was not willful. On the cross-appeal, because we discern no reversible error in the contested claim constructions, we affirm the judgment of direct infringement with respect to products that Pulse delivered in the United States and the judgment of inducement with respect to products that Pulse delivered outside the United States but were imported into the United States by others, as well as the judgment of noninfringement of Pulse's '963 patent. We also affirm the judgment that the asserted claims of the Halo patents were not shown to be invalid for obviousness.

AFFIRMED

United States Court of Appeals for the Federal Circuit

HALO ELECTRONICS, INC.,
Plaintiff-Appellant,

v.

PULSE ELECTRONICS, INC. AND PULSE ELECTRONICS CORPORATION,
Defendants-Cross Appellants.

2013-1472, -1656

Appeals from the United States District Court for the District of Nevada in No. 07-CV-0331, Judge Philip M. Pro.

O'MALLEY, *Circuit Judge*, concurring, with whom HUGHES, *Circuit Judge*, joins.

I agree with the majority's thoughtful conclusion that we should affirm all aspects of the district court's decision in this case. I write separately because, although we are bound by our precedent at the panel stage, I believe it is time for the full court to reevaluate our standard for the imposition of enhanced damages in light of the Supreme Court's recent decisions in *Highmark Inc. v. Allcare Health Management Systems, Inc.*, 134 S. Ct. 1744 (2014) and *Octane Fitness, LLC v. ICON Health & Fitness, Inc.*, 134 S. Ct. 1749 (2014), and the terms of the governing statutory provision, 35 U.S.C. § 284 (2012).

Our current two-prong, objective/subjective test for willful infringement set out in *In re Seagate Technology*, LLC, 497 F.3d 1360 (Fed. Cir. 2007) (en banc) is analogous to the test this court prescribed for the award of attorneys' fees under § 285 in *Brooks Furniture Manufacturing, Inc. v. Dutailier International, Inc.*, 393 F.3d 1378, 1381–82 (Fed. Cir. 2005), *overruled by Octane Fitness,* 134 S. Ct. at 1757–58. The parallel between our tests for these two issues is not surprising. Both enhanced damages and attorneys' fees are authorized under similar provisions in title 35 of the United States Code (the Patent Act of 1952). *Compare* 35 U.S.C. § 284 ("[T]he court may increase the damages up to three times the amount found or assessed.") *with* 35 U.S.C. § 285 ("The court in exceptional cases may award reasonable attorney fees to the prevailing party."). Although § 284 does not limit enhanced damages to "exceptional cases" as does § 285 for attorneys' fees, the Supreme Court has explained that increased damages are only available "in a case of willful or bad-faith infringement." *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 377 U.S. 476, 508 (1964).

As such, our standard for the award of enhanced damages under § 284 has closely mirrored our standard for the award of attorneys' fees under § 285. *See, e.g.*, *Bard Peripheral Vascular, Inc. v. W.L. Gore & Assocs.*, Inc., 682 F.3d 1003, 1007 (Fed. Cir. 2012) ("Our holding is consistent with similar holdings in other parallel areas of law. Our precedent regarding objectively baseless claims, which allow courts to award enhanced damages and attorneys' fees under 35 U.S.C. § 285, and the Supreme Court's precedent on 'sham' litigation are instructive."); *iLOR, LLC v. Google, Inc.*, 631 F.3d 1372, 1377 (Fed. Cir. 2011) ("The objective baselessness standard for enhanced damages and attorneys' fees against a non-prevailing plaintiff under *Brooks Furniture* is identical to the objective recklessness standard for enhanced damages and

attorneys' fees against an accused infringer for § 284 willful infringement actions under [*Seagate*]."). Indeed, our willfulness test, as described in *Seagate* and *Bard*, and our old § 285 test, under *Brooks Furniture*, both were predicated on our interpretation of the Supreme Court's decision in *Professional Real Estate Investors, Inc. v. Columbia Pictures Industries, Inc.* ("*PRE*"), 508 U.S. 49 (1993), which we believed required a two-step objective/subjective inquiry before either enhanced damages or attorneys' fees could be awarded.

The Supreme Court has now told us that our reading of *PRE* was wrong. In *Octane Fitness*, the Court explained that the *PRE* standard was crafted as a very narrow exception for "sham" litigation to avoid chilling the exercise of the First Amendment right to petition the government for redress of grievances with the threat of antitrust liability. This narrow test required that a "sham" litigation be "objectively baseless" and "brought in an attempt to thwart the competition." *Octane Fitness*, 134 S. Ct. at 1757 (citing *PRE*, 508 U.S. at 60–61). In rejecting *Brooks Furniture*'s reliance on *PRE* in the § 285 context, the Supreme Court stated that the narrow *PRE* standard "finds no roots in the text of § 285" and the chilling effect of shifting attorney's fees is not as great as the threat of antitrust liability. *Id*. at 1757–58.

Because we now know that we were reading *PRE* too broadly, and have been told to focus on the governing statutory authorization to determine what standards should govern an award of attorneys' fees, we should reconsider whether those same interpretative errors have led us astray in our application of the authority granted to district courts under § 284. Just as "the *PRE* standard finds no roots in the text of § 285," *id.*, there is nothing in the text of § 284 that justifies the use of the *PRE* narrow standard. In rejecting the rigid two-prong, subjective/objective test for § 285 under *Brooks Furniture*, the Supreme Court told us to employ a flexible totality of the

circumstances test. *Id*. at 1756. We should now assess whether a similar flexible test is appropriate for an award of enhanced damages.

The substantive test is not the only part of our willfulness jurisprudence that requires our attention. In *Octane Fitness*, the Supreme Court also rejected the requirement that patent litigants establish their entitlement to attorneys' fees under § 285 by "clear and convincing evidence." *Id*. at 1758. As we used to do for attorneys' fees, we currently require patentees to prove willfulness by clear and convincing evidence. *See Seagate*, 497 F.3d at 1371. As the Supreme Court explained in *Octane Fitness*, however, the ordinary rule in civil cases, and specifically patent infringement cases, is proof by a preponderance of the evidence. *Herman & Mclean v. Huddleston*, 459 U.S. 375, 390 (1983); *see also Octane Fitness*, 134 S. Ct. at 1758 (citing *Bene v. Jeantet*, 129 U.S. 683, 688 (1889)). In fact, other courts only require proof of willfulness by a preponderance of the evidence in similar contexts. *E.g.*, *Fishman Transducers, Inc. v. Paul*, 685 F.3d 187, 193 (1st Cir. 2012) (holding that a preponderance of the evidence standard was appropriate to prove willfulness in a trademark infringement case); *Columbia Pictures Indus., Inc. v. Liberty Cable, Inc.*, 919 F. Supp. 985 (S.D.N.Y. 1996) (explaining that plaintiff must prove willful copyright infringement by a preponderance of the evidence). As with § 285, moreover, § 284 has no language that would justify a higher standard of proof; it just demands a simple discretionary inquiry and imposes no specific evidentiary burden. *See Octane Fitness*, 134 S. Ct. 1758. This court should evaluate whether there are any reasons to maintain a standard that is at odds with the ordinary standard in civil cases for a finding of willfulness where nothing in the statutory text even hints that we do so.

The Supreme Court also rejected de novo review of a fee award under § 285. *Highmark*, 134 S. Ct. at 1748.

According to the Supreme Court, "whether a case is 'exceptional' under § 285 is a matter of discretion," which "is to be reviewed only for abuse of discretion." *Id.* Section 284 also leaves the issue of enhanced damages to the discretion of the court. *Compare* 35 U.S.C. § 284 ("[T]he court *may* increase the damages . . . ." (emphasis added)) *with* 35 U.S.C. § 285 ("The court in exceptional cases *may* award reasonable attorney fees to the prevailing party." (emphasis added)). Indeed, other appellate courts review similar willfulness findings with more deference. *E.g.*, *Dolman v. Agee*, 157 F.3d 708, 714–15 (9th Cir. 1998) (reviewing a finding of willful copyright infringement for clear error). As such, we must also consider whether a district court's finding of willfulness should be subject to de novo review.

Finally, under the plain language of §§ 284 and 285, "the court" is the entity that decides whether the remedy is appropriate. 35 U.S.C. § 284 ("*[T]he court* may increase the damages . . . ." (emphasis added)); 35 U.S.C. § 285 ("*The court* in exceptional cases may award reasonable attorney fees to the prevailing party." (emphasis added)). While we allowed the court to determine whether to award attorneys' fees under *Brooks Furniture*, we have long held that a willfulness determination contains issues of fact that should be submitted to a jury. *See Bard*, 682 F.3d at 1005 (holding that the objective prong under *Seagate* was ultimately a question of law for the court, but leaving the subjective prong as a question of fact for the jury); *see also Nat'l Presto Indus., Inc. v. West Bend Co.*, 76 F.3d 1185, 1193 (Fed. Cir. 1996) ("The issue of willful infringement remains with the trier of fact."); *Braun Inc. v. Dynamics Corp. of Am.*, 975 F.2d 815, 822 (Fed. Cir. 1992) ("Whether infringement is willful is a question of fact and the jury's determination as to willfulness is therefore reviewable under the substantial evidence standard." (citation omitted)). Although not directly addressed by the Supreme Court, when we reevaluate the

proper test for an award of enhanced damages, this court should also consider whether § 284 requires a decision on enhanced damages to be made *by the court*. The mere presence of factual components in a discretionary inquiry does not remove that inquiry from the court to whom congress reposed it. *See Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 992 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370 (1996) ("Even within the realm of factual questions, whether a particular question must always go to a jury depends 'on whether the jury must shoulder this responsibility as necessary to preserve the substance of common law right of trial by jury.'" (quoting *Tull v. United States*, 481 U.S. 412, 417 (1987))).

For the following reasons, although we are bound by *Seagate* and *Bard* as a panel, I urge the full court to reevaluate our willfulness jurisprudence in light of the Supreme Court's decisions in *Highmark* and *Octane Fitness*.