

United States Court of Appeals for the Federal Circuit

04-1396, -1513

MEMC ELECTRONIC MATERIALS, INC.,

Plaintiff-Appellant,

v.

mitsubishi materials silicon corporation,
mitsubishi silicon america corporation,
sumitomo mitsubishi silicon corporation (also known as Sumco),
sumco usa corporation (also known as Sumco USA), and
sumco usa sales corporation (also known as Sumco USA Sales),

Defendants-Cross Appellants.

Robert M. Evans, Jr., Senniger Powers, of St. Louis, Missouri, argued for plaintiff-appellant. With him on the brief was Marc W. Vander Tuig. Of counsel on the brief were Duane H. Mathiowetz and Korula T. Cherian, Howrey Simon Arnold & White, LLP, of San Francisco, California.

R. Terrance Rader, Rader, Fishman & Grauer PLLC, of Bloomfield Hills, Michigan, argued for defendants-cross appellants. With him on the brief were David T. Nikaido and Glenn E. Forbis. Of counsel were Ellen A. Efros and Lisa R. Mikalonis.

Appealed from: United States District Court for the Northern District of California

Judge Sandra Brown Armstrong

United States Court of Appeals for the Federal Circuit

04-1396, -1513

MEMC ELECTRONIC MATERIALS, INC.,

Plaintiff-Appellant,

v.

MITSUBISHI MATERIALS SILICON CORPORATION,
MITSUBISHI SILICON AMERICA CORPORATION,
SUMITOMO MITSUBISHI SILICON CORPORATION (also known as Sumco),
SUMCO USA CORPORATION (also known as Sumco USA), and
SUMCO USA SALES CORPORATION (also known as Sumco USA Sales),

Defendants-Cross Appellants.

DECIDED: August 22, 2005

Before NEWMAN, SCHALL, and DYK, Circuit Judges.

SCHALL, Circuit Judge.

MEMC Electronic Materials, Inc. (“MEMC”) is the assignee of record of U.S. Patent No. 5,919,302 (the “302 patent”). It brought suit in the United States District Court for the Northern District of California against Mitsubishi Materials Silicon Corporation, Mitsubishi Silicon America Corporation, Sumitomo Mitsubishi Silicon Corporation (“SUMCO Corp.”), Sumco USA Corporation (“SUMCO USA”), and Sumco USA Sales Corporation (“SUMCO USA Sales”) (collectively, “defendants” or “SUMCO”).

In its suit, MEMC alleged direct infringement of the '302 patent under 35 U.S.C. § 271(a) and inducement of infringement of the patent under 35 U.S.C. § 271(b). The district court eventually granted summary judgment in favor of defendants on the ground that, as a matter of law, they could not be liable for either direct infringement or inducement of infringement. MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp., No. 4:01-CV-04925 (N.D. Cal. Mar. 16, 2004) ("Summary Judgment Order"). As far as direct infringement was concerned, the court ruled that there was no evidence of sales or offers for sale of accused products in the United States. As far as inducement of infringement was concerned, the court ruled that MEMC had failed to produce any evidence of inducement of infringement by defendants. MEMC now appeals that decision. At the same time, defendants cross-appeal the district court's denial of their motion for attorney's fees, expert witness fees, and expenses.

We see no error in the grant of summary judgment with respect to direct infringement. However, in view of what we think are genuine issues of material fact, we hold the district court did err in granting summary judgment with respect to inducement of infringement. Accordingly, with respect to MEMC's appeal, the judgment of the district court is affirmed-in-part and reversed-in-part and the case is remanded to the district court for further proceedings. On the cross-appeal, we affirm the denial of defendants' request for attorney's fees.

I.

MEMC is a supplier of silicon wafers to the semiconductor industry. The '302 patent, entitled "Low Defect Density Vacancy Dominated Silicon," relates to the preparation of semiconductor grade single crystal silicon, which is used, in wafer form,

in the manufacture of electronic components such as integrated circuits. '302 patent col. 1, ll. 9-16. Prior art methods of manufacturing single crystal silicon often resulted in crystals containing large quantities of agglomerated intrinsic point defects. Id. col. 1, ll. 18-55. These defects can severely impact the yield potential of silicon wafers in complex and highly integrated circuits. Id. col. 1, ll. 53-55. The patent discloses a method of preparing single crystal silicon that is substantially free of agglomerated intrinsic point defects. Specifically, the '302 patent discloses a process specifying initial growth conditions and the temperature range of the manufacturing process. Id. col. 3, l. 62 – col. 4, l. 14.

Claim 1, the only asserted independent claim of the '302 patent, states as follows:

1. A single crystal silicon wafer having a central axis, a front side and a back side which are generally perpendicular to the central axis, a circumferential edge, and a radius extending from the central axis to the circumferential edge of the wafer, the wafer comprising
a first axially symmetric region in which vacancies are the predominant intrinsic point defect and which is substantially free of agglomerated vacancy intrinsic point defects wherein the first axially symmetric region comprises the central axis or has a width of at least about 15 mm.

'302 patent col. 23, ll. 17-23.

SUMCO, like MEMC, is a supplier of silicon wafers to the semiconductor industry. It is undisputed that SUMCO's silicon wafers are manufactured exclusively outside of the United States at SUMCO's manufacturing plant in Yonezawa, Japan. Ostensibly, SUMCO sells silicon wafers to Samsung Japan Corporation ("Samsung

Japan”), which then sells the wafers to Samsung Austin Semiconductor, located in Austin, Texas (“Samsung Austin”).¹

On December 14, 2001, MEMC sued SUMCO in the United States District Court for the Northern District of California, claiming that SUMCO was liable for infringement and inducement of infringement of the '302 patent based upon SUMCO's alleged sale and importation of certain silicon wafers.² MEMC asserted that SUMCO directly infringed the '302 patent under 35 U.S.C. § 271(a) by offering to sell and selling the accused wafers to Samsung Austin. With respect to its claim of inducement of infringement under 35 U.S.C. § 271(b), MEMC asserted that SUMCO encouraged and enabled Samsung Austin to use the accused wafers by manufacturing wafers according to Samsung Korea's specifications and by providing technical support to the Samsung Austin facility.

II.

On December 3, 2003, SUMCO filed a motion for summary judgment of zero damages, arguing that MEMC could not prove that defendants committed the alleged acts of infringement within the United States. SUMCO argued that it did not sell the accused wafers either directly or indirectly to Samsung Austin, and that it only sold the accused wafers to Samsung Japan. SUMCO also argued that it had not engaged in

¹ Samsung Electronics Co., Ltd. (“Samsung Korea”) is the Korean parent company of Samsung Austin and Samsung Japan.

² Mitsubishi Materials Silicon Corporation and Mitsubishi Silicon America Corporation were the original defendants. In February of 2002, SUMCO Corp. was formed as a joint venture between Mitsubishi Materials Silicon Corporation and the Sitix Division of Sumitomo Metals Industries, Ltd. The complaint was thereafter amended to add SUMCO Corp., SUMCO USA, and SUMCO USA Sales as defendants.

any conduct that would constitute the active inducement of infringement by Samsung Austin in the United States.

MEMC responded that Samsung Japan was merely a conduit for the delivery of defendants' accused wafers and that Samsung Austin was SUMCO's true customer. MEMC also argued that defendants induced Samsung Austin's infringement of the '302 patent by manufacturing wafers according to Samsung Austin's specifications and by providing substantial technical support to Samsung Austin.

On March 16, 2004, the district court granted defendants' summary judgment motion. The court held that MEMC had failed to produce any evidence of sales or offers for sales of the accused wafers in the United States by defendants or any evidence of importation of the accused wafers into the United States by defendants. Summary Judgment Order, slip op. at 2. The court also held that, vis-à-vis Samsung Austin, MEMC had failed to provide any evidence of active and intentional inducement of infringement by defendants. Id. On April 22, 2004, the district court entered final judgment of non-infringement. Under these circumstances, the court reasoned, MEMC could not establish entitlement to any damages. Id. On May 20, 2004, SUMCO filed a motion for attorney's fees, expert witness fees, and expenses. The district court denied this motion on July 9, 2004. MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp., No. 4:01-CV-04925 (N.D. Cal. July 9, 2004) ("Attorney's Fees Order").

MEMC appeals the district court's final determination of non-infringement as well as the underlying order granting SUMCO summary judgment of zero damages. SUMCO cross-appeals the district court's denial of its motion for attorney's fees, expert witness fees, and expenses. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

I.

Summary judgment is appropriate only if, when the facts are viewed in the light most favorable to the nonmoving party and all doubts are resolved against the movant, there are no genuine issues of material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48 (1986); see also Caterpillar, Inc. v. Deere & Co., 224 F.3d 1374, 1379 (Fed. Cir. 2000) (“When ruling on a motion for summary judgment, all of the nonmovant’s evidence is to be credited, and all justifiable inferences are to be drawn in the nonmovant’s favor.”). The movant carries the initial burden of proving that there are no genuine issues of material fact. Celotex Corp. v. Catrett, 477 U.S. 317, 322-24 (1986). If the movant shows a prima facie case for summary judgment, then the burden of production shifts to the nonmovant to present specific evidence indicating there is a genuine issue for trial. Anderson, 477 U.S. at 250. This court reviews de novo the district court’s finding that there is no genuine issue as to any material fact regarding infringement. Amgen, Inc. v. Hoechst Marion Roussel, Inc., 314 F.3d 1313, 1339 (Fed. Cir. 2003).

The district court based its ruling of non-infringement on MEMC’s inability to establish damages for infringement and, thus, did not address the issue of claim coverage with respect to the ’302 patent. Accordingly, we assume for purposes of this appeal that the asserted claims of the ’302 patent read on the accused wafers. We turn first to the issue of direct infringement.

II.

The following facts are not in dispute: SUMCO sells the accused silicon wafers to Samsung Japan, which then sells the wafers to Samsung Austin. As noted above, the wafers are manufactured exclusively outside of the United States at SUMCO's manufacturing plant in Yonezawa, Japan. SUMCO manufactures the accused wafers according to specifications provided by, and pursuant to a license from, Samsung Korea. Typically, Samsung Japan sends SUMCO an electronic purchase order specifying the number of wafers to be manufactured. At some point after the purchase order is received, SUMCO processes the order and manufactures the wafers. The wafers then are packed in boxes at the Yonezawa plant and delivered at Yonezawa to a packaging company. SUMCO attaches a packaging label that indicates the destination of the wafers to be Austin, Texas. The packaging company, in turn, transports the boxes to its own facility for shipment, "free on board,"³ to Samsung Austin's semiconductor fabrication plant in Austin, Texas.

Beyond these undisputed facts, MEMC directs our attention to evidence in the record from the summary judgment proceedings that it contends supports finding specific contacts between SUMCO and Samsung Austin. In support of its allegation of infringement, MEMC submitted a series of e-mails between SUMCO and an engineer at Samsung Austin. These e-mails suggest that SUMCO provides Samsung Austin with detailed electronic test data on the wafers for the purpose of obtaining Samsung Austin's approval for shipment before SUMCO turns the wafers over to the packaging

³ "Free on board" is a method of shipment whereby goods are delivered at a designated location, usually a transportation depot, at which legal title and thus the risk of loss passes from seller to buyer. See N. Am. Philips Corp. v. Am. Vending Sales, Inc., 35 F.3d 1576, 1578 n.2 (Fed. Cir. 1994).

company for shipment to the United States. The engineer at Samsung Austin analyzes the test data upon receipt and, if the data indicates that the wafers are acceptable, the shipment is approved. These e-mails also suggest that SUMCO and Samsung Austin communicated directly and independently of Samsung Japan in order to coordinate shipment dates and the quantity of wafers sent in each shipment, subject to Samsung Austin's final approval. In addition, the e-mails represent communications directly between Samsung Austin and SUMCO that address various problems Samsung Austin encountered with the wafers from time to time. These communications often resulted in adjustments made in the upstream manufacturing process at the SUMCO facility in Japan or adjustments made in the downstream process at the Samsung Austin facility in Austin, Texas.

The e-mail correspondence between employees of SUMCO and the engineer at Samsung Austin also reveals a transaction in November and December of 2002, during which SUMCO's International Sales Manager, Toshihiro Awa, requested authorization from Samsung Austin for the shipment of a quantity of wafers with a modified edge-shape directly to Samsung Austin. The wafers were sent in response to certain problems with previously-supplied SUMCO wafers. Mr. Awa was granted authority from Samsung Austin's purchasing manager to add these wafers to an existing Samsung Japan purchase order.

Finally, MEMC presented evidence suggesting that SUMCO personnel made several on-site visits to the Samsung Austin plant after issuance of the '302 patent. First, MEMC pointed to the deposition testimony of Yoshihiro Wakisawa, an engineer at SUMCO. Mr. Wakisawa testified that he took two trips to the Samsung Austin facility in

2000 and 2001. Mr. Wakisawa further testified that, during at least one of the trips, he made a technical presentation concerning the accused wafers. Second, MEMC cited the deposition testimony of Mr. Awa that he made multiple trips to the Samsung Austin facility, including one trip during 2000 or 2001 during which he made a technical presentation concerning the accused wafers.

III.

On appeal, MEMC argues that the district court erred in granting summary judgment of no direct infringement because the evidence of record demonstrates that SUMCO offers to sell and sells the accused silicon wafers to Samsung Austin in Austin, Texas. First, MEMC argues, SUMCO sells the accused wafers to Samsung Austin based on evidence that SUMCO: (1) manufactures the accused wafers according to Samsung's specifications; (2) e-mails Samsung Austin the test data for shipment authorization, (3) packages the wafers for shipment; (4) applies a shipping label for Samsung Austin in Austin, Texas; and (5) provides crucial follow-up technical support. Thus, SUMCO asserts that Samsung Japan's "interposition in the purchase order process" does not change the fact that Samsung Austin is SUMCO's "true" customer. MEMC cites N. Am. Philips Corp. v. Am. Vending Sales, Inc., 35 F.3d 1576 (Fed. Cir. 1994), and Beverly Hills Fan Co. v. Royal Sovereign Corp., 21 F.3d 1558 (Fed. Cir. 1994), for the proposition that the location of an infringing sale is either where the buyer is located or where a patentee suffers economic loss.

Second, according to MEMC, the transmittal of data from defendants to Samsung Austin constitutes an "offer to sell" the accused wafers within the meaning of section 271(a). MEMC states that, "[t]hrough these e-mails, SUMCO has

communicated its willingness to ship to [Samsung Austin] a certain quantity of wafers (typically some subset of the total quantity identified in the electronic purchase order) on a certain date for the previously agreed to price, such wafers having the characteristics described by the voluminous data contained in the attached spreadsheets.” MEMC states in addition that if Samsung Austin replies to the e-mail and accepts the tendered data, the bargain is concluded and SUMCO causes the wafers to be shipped to the United States. MEMC further states that SUMCO’s e-mails generate interest in the accused wafers to the commercial detriment of MEMC—a result indicative of an infringing offer to sell.

SUMCO responds that the district court did not err in granting summary judgment that SUMCO does not directly infringe the ’302 patent under 35 U.S.C. § 271(a). This is so, according to SUMCO, because MEMC presented no evidence that SUMCO sells or offers to sell the accused wafers in the United States. SUMCO asserts that the test data it sends to Samsung Austin is generated and sent after the accused wafers have been purchased and manufactured in Japan. Consequently, according to SUMCO, transmittal of this data cannot constitute an “offer to sell.” SUMCO states that e-mailing of this test data is done merely to allow Samsung Austin to confirm that the actual wafers satisfy Samsung’s specifications, i.e., the terms of the bargain already struck between Samsung Korea and SUMCO. Likewise, SUMCO asserts that the post-sale technical support it provides to Samsung Austin cannot qualify as a “sale” or “offer to sell” within the meaning of section 271(a) because this support occurs after the wafers have already been purchased and manufactured.

The question we are presented with in this case is whether SUMCO's activities in the United States, as would be construed by a reasonable jury, are sufficient to establish an "offer for sale" or "sale" within the meaning of 35 U.S.C. § 271(a).

Section 271(a) provides as follows:

Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.

35 U.S.C. § 271(a) (2000). It is well-established that the reach of section 271(a) is limited to infringing activities that occur within the United States. See Rotec Indus. v. Mitsubishi Corp., 215 F.3d 1246, 1251 (Fed. Cir. 2000) ("These extraterritorial activities however, are irrelevant to the case before us, because '[t]he right conferred by a patent under our law is confined to the United States and its territories, and infringement of this right cannot be predicated of [sic] acts wholly done in a foreign country.'" (quoting Dowagiac Mfg. Co. v. Minn. Moline Low Co., 235 U.S. 641, 650 (1915))).

We have defined liability for an "offer to sell" under section 271(a) "according to the norms of traditional contractual analysis." Rotec Indus., 215 F.3d at 1255. Thus, the defendant must "communicate[] 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.'" Id. at 1257 (quoting Restatement (Second) of Contracts § 24 (1979)). We considered the meaning of "offer to sell" in 3D Systems, Inc. v. Aarotech Laboratories, Inc., 160 F.3d 1373 (Fed. Cir. 1998). The defendants in 3D Systems provided potential California customers with price quotations, brochures, specification sheets, videos, and sample parts related to their product. Id. at 1379.

Based on this activity, the patentee sued the defendants in the United States District Court for the Central District of California for infringement of a variety of patents, arguing that the defendants were liable for “offering to sell” the patented inventions. Id. at 1377. The defendants moved to dismiss the suit for lack of personal jurisdiction. Id. The district court granted the motion to dismiss; on appeal, this court reversed. We concluded that although the “price quotation letters state on their face that they are purportedly not offers,” the letters could be “regarded as ‘offer[s] to sell’ under section 271 based on the substance conveyed in the letters, i.e., a description of the allegedly infringing merchandise and the price at which it can be purchased.” Id. at 1379. We also noted that “[o]ne of the purposes of adding ‘offer[] to sell’ to section 271(a) was to prevent exactly the type of activity Aaroflex has engaged in, i.e., generating interest in a potential infringing product to the commercial detriment of the rightful patentee.” Id.

We do not think that MEMC has presented any relevant evidence to support its claim that SUMCO offered to sell the accused wafers to Samsung Austin in the United States. MEMC points to no evidence of negotiations occurring in the United States between SUMCO and Samsung Austin. At the same time, transmittal of e-mails containing technical data from SUMCO to Samsung Austin cannot constitute an “offer for sale.” First, unlike the price quotation letters in 3D Systems, the e-mails, while containing a description of the allegedly infringing wafers, do not contain any price terms. Accordingly, on their face, the e-mails cannot be construed as an “offer” which Samsung Austin could make into a binding contract by simple acceptance. See Rotec Indus., 215 F.3d at 1251. MEMC contends that the e-mails contain an implicit price

term—one that has been previously agreed upon by Samsung Japan and SUMCO. However, in the circumstances of this case (where the e-mails did not incorporate a price term), any negotiations that may have occurred between Samsung Japan and SUMCO outside of the United States are irrelevant to the inquiry of whether, in the United States, SUMCO has offered to sell the accused wafers.

Turning to the question of actual sale, the undisputed evidence is as follows: (1) Samsung Japan alone controls when SUMCO receives an electronic purchase order and how many wafers are ordered; (2) Samsung Japan designates a third party packaging company to transport the wafers to Samsung Austin; (3) Samsung Japan arranges for the packaging, labeling, and shipping of the wafers; and (4) Samsung Japan pays SUMCO electronically for the wafers after they are delivered by the packaging company. Significantly, as far as the sale is concerned, MEMC points to no additional evidence. Thus, any “sale” of the wafers took place between SUMCO and Samsung Japan, and the sale occurred in Japan where all of the essential activities took place.

MEMC’s reliance on North American Philips and Beverly Hills Fan Co. is misplaced. North American Philips simply noted that in some cases the criterion for determining the location of a “sale” under section 271(a) is not necessarily where legal title passes; the “more familiar places of contracting and performance” may take precedence over the passage of legal title. 35 F.3d at 1579. Thus, simply because an article is delivered “free on board” outside of the forum, a “sale” is not necessarily precluded from occurring in the forum. Significantly, MEMC has not presented evidence that, as far as SUMCO is concerned, “contracting and performance” took place in the

United States. Similarly, Beverly Hills Fan Co. held that the situs of an injury is the location, or locations, at which the infringing activity directly impacts on the interests of the patentee, and that “[e]conomic loss occurs to the patent holder at the place where the infringing sale is made because the patent owner loses business there.” 21 F.3d at 1571 (emphasis added). However, as noted above, MEMC presents no evidence that SUMCO entered into any negotiations with Samsung Austin in the United States concerning the accused wafers and no evidence that title of the wafers passed directly from SUMCO to Samsung Austin. Mere knowledge that a product sold overseas will ultimately be imported into the United States is insufficient to establish liability under section 271(a). See Rotec Indus., 215 F.3d at 1251 (finding that the only activities that are relevant to direct infringement are those activities that take place within the borders of the United States). In short, MEMC has presented no evidence demonstrating that SUMCO sold the accused wafers to Samsung Austin in the United States. Based upon the foregoing, we see no error in the district court’s grant of summary judgment of no direct infringement under 35 U.S.C. § 271(a).

IV.

MEMC argues next that SUMCO actively induces Samsung Austin’s infringement of the ’302 patent under 35 U.S.C. § 271(b). According to MEMC, the district court erred in granting summary judgment of no inducement of infringement, given evidence that SUMCO had knowledge of the ’302 patent and evidence that SUMCO knowingly supplied Samsung Austin with the accused wafers and provided Samsung Austin with substantial technical support. First, in addition to the evidence noted in Part II, supra, MEMC points to a letter dated April 17, 2000, in which MEMC advised SUMCO that it

was selling a product that may be covered by the '302 patent and in which it offered SUMCO a license to practice the invention. Second, MEMC points to the deposition testimony of Dr. Jose Coria, a former Samsung Austin employee, who stated that Samsung Austin will not enter into an agreement to buy wafers from a wafer supplier, unless the supplier will also provide Samsung Austin with technical support for the wafers. Thus, according to MEMC, the substantial product support defendants have provided to Samsung Austin has induced Samsung Austin to buy and use the accused wafers and thus to infringe the '302 patent. MEMC also points to the fact that Samsung Japan's purchase order for the accused wafers includes an indemnity provision for patent infringement liability running from SUMCO to Samsung Japan, thereby reducing the deterrent effect the '302 patent would otherwise have on Samsung to use the accused wafers in the United States or to import those wafers into the United States.

SUMCO responds that the district court properly granted summary judgment of non-infringement under section 271(b) because: (1) it does not supply the accused wafers to Samsung Austin; (2) there is no evidence that it encourages Samsung Japan to ship the accused wafers to Samsung Austin; (3) post-sale technical support is insufficient to establish active inducement under section 271(b); (4) the indemnity clause in the purchase order relates only to claims under Japanese patent laws for wafers sold by Samsung in Japan; and (5) MEMC has offered no evidence of the required intent.

Under section 271(b), "[w]hoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. §271(b). "In order to succeed on a claim of inducement, the patentee must show, first that there has been direct infringement," and

“second, that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another’s infringement.” Minn. Mining & Mfg. Co. v. Chemque, Inc., 303 F.3d 1294, 1304-05 (Fed. Cir. 2002) (citations omitted).⁴ “While proof of intent is necessary, direct evidence is not required; rather, circumstantial evidence may suffice.” Water Techs. Corp v. Calco, Ltd., 850 F.2d 660, 668 (Fed. Cir. 1988).

As a preliminary matter, we do not agree with MEMC that the indemnity provision included on Samsung Japan’s purchase order for the accused wafers establishes SUMCO’s intent to induce infringement on the part of Samsung Japan. The provision states as follows:

Supplier herein shall indemnify the buyer for all claims of patent infringement whether direct or contributory and for all costs for defending against such claims resulting from the purchase of the above items.

As this court explained in Hewlett-Packard Co. v. Bausch & Lomb Inc., “an indemnification agreement will generally not establish an intent to induce infringement, but . . . such intent can be inferred when the primary purpose is to overcome the

⁴ It should be noted that “there is a lack of clarity concerning whether the required intent must be merely to induce the specific acts [of infringement] or additionally to cause an infringement.” MercExchange, L.L.C. v. eBay, Inc., 401 F.3d 1323, 1332 (Fed. Cir. 2005) (citing Insituform Techs., Inc. v. CAT Contracting, Inc., 385 F.3d 1360, 1378 (Fed. Cir. 2004)); see Manville Sales Corp. v. Paramount Sys., Inc., 917 F.2d 544, 553 (Fed. Cir. 1990) (“The plaintiff has the burden of showing that the alleged infringer’s actions induced infringing acts *and* that he knew or should have known his actions would induce actual infringements.”); but see Hewlett-Packard Co. v. Bausch & Lomb, Inc., 909 F.2d 1464, 1469 (Fed. Cir. 1990) (“Proof of actual intent to cause the acts which constitute the infringement is a necessary prerequisite to finding active inducement.”). We need not resolve that ambiguity in this case, however, because it is undisputed that SUMCO had knowledge of the ’302 patent. Thus, assuming that MEMC is able to demonstrate that SUMCO had intent to induce the specific acts constituting infringement, intent additionally to cause an infringement can be presumed.

deterrent effect that the patent laws have on would-be infringers.” 909 F.2d 1464, 1470 (Fed. Cir. 1990) (citation omitted). As in Hewlett-Packard, the indemnity provision in this case may have facilitated the sale of the accused wafers, but there is no evidence that the primary purpose of the agreement was to induce Samsung Japan to infringe the '302 patent. As noted by SUMCO, given that the sale of the wafers from SUMCO to Samsung Japan occurred in Japan, it is more reasonable to conclude that the indemnity clause relates to claims of patent infringement under Japanese law. In other respects, we do not think that a claim of active inducement of Samsung Japan by SUMCO has been properly preserved in the district court. We therefore need not address whether inducing activity in Japan can give rise to liability under United States patent laws. See Crystal Semiconductor Corp. v. Tritech Microelectronics, Int'l Inc., 246 F.3d 1336, 1351 (Fed. Cir. 2001).

Nevertheless, we conclude that there are genuine issues of material fact with respect to whether SUMCO induced infringement of the '302 patent on the part of Samsung Austin. First, SUMCO had knowledge of MEMC's patent as well as knowledge of Samsung Austin's potentially infringing activities. In addition, there is evidence that SUMCO provides substantial technical support to Samsung Austin in the form of e-mail communications. As noted above in Part II, the series of e-mails between SUMCO and the engineer at Samsung Austin demonstrate that SUMCO works with Samsung Austin to coordinate shipment dates and the quantity of wafers sent in each shipment and that SUMCO makes adjustments in the manufacturing process in order to address problems Samsung Austin encounters with the wafers. Second, there is evidence that during November and December 2002, SUMCO sent a shipment of

certain wafers directly to Samsung Austin in order to address technical problems with previously-supplied SUMCO wafers. Third, there is evidence that SUMCO personnel made several on-site visits to Samsung Austin, during which technical presentations on the SUMCO wafers were made. In addition, as noted above, Dr. Coria testified that Samsung Austin will not enter into an agreement to buy wafers from a wafer supplier unless the supplier will also provide Samsung Austin with technical support for the wafers. Dr. Coria testified as follows:

Q: When Samsung Austin Semiconductor enters into an agreement to buy wafers from a wafer supplier, part of the deal is that the wafer supplier will provide technical support for those wafers and help Samsung solve problems to the extent that they come up?

A: Yes.

Q: Does Sumco provide product support for the wafer that it sells to Samsung Austin?

A: Yes.

* * *

Q: Does Samsung Austin expect that product support as part of the sale?

A: Yes.

Q: And if Samsung Austin doesn't get that product support, it won't buy the wafers, will it?

A: Yes.

(Feb. 11, 2004 Dep. of Dr. Coria at 47-48).

In light of the above evidence of record and viewing this evidence in the light most favorable to MEMC, we are not prepared to hold that a reasonable jury could not find intent to induce infringement. "Evidence of active steps taken to encourage direct

infringement, such as advertising an infringing use or instructing how to engage in an infringing use, show an affirmative intent that the product be used to infringe.” Metro-Goldwyn-Mayer Studios Inc. v. Gokster, Ltd., No. 04-480, slip op. at 18 (U.S. June 27, 2005) (internal citations and alternations omitted). First, a reasonable jury could conclude that the e-mail communications between SUMCO and Samsung Austin in the United States represent product support which enabled Samsung Austin to purchase and use the accused wafers. See Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings, 370 F.3d 1354 (Fed. Cir. 2004) (finding active inducement of infringement based on defendant’s publications describing and promoting use of patented method). As for the requirement of specific intent to encourage infringement, it is undisputed that SUMCO knew of the existence of the ’302 patent because it received a letter concerning it. This type of evidence is relevant for supporting proof of intent for inducement (though not by itself sufficient). See Fuji Photo Film Co., Ltd. v. Jazz Photo Corp., 394 F.3d 1368, 1378 (Fed. Cir. 2005); Mentor H/S, Inc. v. Med. Device Alliance, Inc., 244 F.3d 1365, 1379 (Fed. Cir. 2001). Moreover, the series of e-mails between SUMCO and Samsung Austin provide sufficient circumstantial evidence for a reasonable jury to conclude that SUMCO was not only aware of the potentially infringing activities in the United States by Samsung Austin, but also that SUMCO intended to encourage those activities. See Fuji Photo Film Co., 394 F.3d at 1378 (“A patentee may prove intent through circumstantial evidence.”); Water Techs., 850 F.2d at 669 (“The requisite intent to induce infringement may be inferred from all of the circumstances.”). For the foregoing reasons, we reverse the district court’s grant of summary judgment of non-infringement based on inducement of infringement under section 271(b) and remand the case to the

district court for further proceedings on that issue. Those proceedings will, of course, involve (i) construing the claims of the '302 patent; (ii) determining whether Samsung Austin directly infringes; and (iii) determining whether, if there is direct infringement on the part of Samsung Austin, SUMCO induces that infringement.⁵

V.

We now turn to SUMCO's cross-appeal. As there is no final resolution of the dispute in this case, technically there is no "prevailing party" as is required for an award of attorney fees under 35 U.S.C. § 285 and the issue may be premature. See Medichem, S.A. v. Rolabo, S.L., 353 F.3d 928 (Fed. Cir. 2003). However, as the issue is likely to arise again, we will address it in the interest of justice. SUMCO argues that the district court clearly erred in denying its motion for attorney's fees, expert witness fees, and expenses. SUMCO sought to recover these fees and expenses in connection

⁵ MEMC also argues on appeal that the district court erred in striking certain "claims charts" from the expert report of Dr. Luciano Mule'Stagno. The report consists of the results of testing performed on silicon wafers produced during discovery by SUMCO, and comprises seven pages of narrative opinion and almost 500 pages of materials relating to testing methodology and results. The district court described the "claims charts" as follows:

The Report contains various claim charts comparing the tested wafers to the '302 Patent. . . . The charts are crude and merely contain check marks next to each of the claims of the '302 patent each tested wafer allegedly infringes. The narrative accompanying the chart is also vague. For example, "[e]ach wafer is also a single crystal meeting the conventional geometric requirements of the preamble."

Summary Judgment Order, slip op. at 30. The court concluded that the charts violated Patent Local Rule 3-1 because they did not identify each element of each claim and did not specify where each claim limitation was met in each accused wafer. Id. The court also ruled that MEMC had failed to demonstrate "good cause" under Patent Local Rule 307 sufficient to amend its infringement contentions.

We see no abuse of discretion in the district court's exclusion of the claims charts from Dr. Mule'Stagno and thus decline to disturb the court's ruling.

with MEMC's patent infringement claims. Before the district court, SUMCO asserted that the case was exceptional under 35 U.S.C. § 285 "based on [MEMC's] failure to conduct an adequate pre-filing investigation and for [MEMC's] egregious litigation misconduct in the prosecution of [its patent infringement claims]." (Motion for Attorney's Fees at 2). SUMCO also sought sanctions under Fed. R. Civ. P. 11 and 28 U.S.C. § 1927, "based on MEMC's failure to conduct an adequate pre-filing investigation; for [MEMC's] maintenance of an unwarranted infringement claim in the face of uncontroverted evidence of the lack of subject matter jurisdiction; and for plaintiff's counsel's unreasonable and vexatious multiplying of the proceedings." (Id.)

With respect to its claim of an improper pre-filing investigation, SUMCO asserted that "[t]he extent of MEMC's pre-filing analysis was a 'Competitor Analysis,' performed in Korea, comparing defendants' wafers, obtained in Korea, against wafers manufactured by MEMC, also in Korea. . . ." (Id. at 5.) SUMCO also asserted that there was no evidence that the wafers used in the "Competitor Analysis" were manufactured pursuant to the '302 patent. (Id.) SUMCO further asserted that MEMC failed to investigate whether SUMCO made, used, sold, offered for sale, or imported the accused wafers into the United States, stating: "[t]he only evidence MEMC had was information from a[] MEMC salesman in Texas who claimed to have seen boxes of wafers with defendants' logo on them in Samsung's warehouse . . . in Austin, Texas." (Id. at 7.)

The district court determined that "MEMC's pre-filing investigation, while not ideal, does not rise to the level of sanctionable conduct under Section 285." Attorney's Fees Order, slip op. at 4. The court noted that, prior to filing suit for infringement, two lawyers for MEMC reviewed the '302 patent and construed the claims consistent with

the standard canons of claim construction. Id., slip op. at 3. The claims of the '302 patent then were compared with the results of an analysis of SUMCO's pure silicon wafers, obtained in Korea. Id. The court noted further that the attorneys had reason to believe that the wafers analyzed were used by both Samsung Austin and Samsung Korea. Id., slip op. at 4. Thus, the court concluded:

Considering the information MEMC derived from the Competitor Analysis and what MEMC knew about the silicon wafer industry in general and about its own dealings with Samsung in particular, MEMC's belief, at the time it filed suit, that Sumco's pure silicon wafers infringed the '302 Patent cannot be characterized as frivolous or unjustified. Given this, and given that there is no evidence either (1) that the Sumco wafers that were the subject of the Competitor Analysis were materially different from the Accused Wafers or (2) that MEMC knew that the Accused Wafers were materially different from the wafers analyzed in the Competitor Analysis and proceeded with the instant suit despite this knowledge, SUMCO has failed to meet its substantial burden of showing that MEMC's infringement claim was "clearly and convincingly vexatious, unjustified, or frivolous." See Forest Labs., 339 F.2d at 1330. Moreover, the record does not support a finding that an award of fees is necessary in this case to prevent a "gross injustice." Id. at 1329.

Id., slip op. at 6. The district court also concluded that MEMC's belief, at the time of suit, that SUMCO was performing infringing activity in the United States was neither frivolous nor unjustified. Id., slip op. at 7-8. With respect to SUMCO's motion for sanctions under section 1927, the district court found that "the record does not support a finding that MEMC's conduct during this litigation was reckless or conducted in bad faith." Id., slip op. at 10.

Pursuant to 35 U.S.C. § 285, a "court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U.S.C. § 285 (2000). A determination of whether a case is eligible for attorney fees under section 285 is a two

step process. Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1460 (Fed. Cir. 1998). First, the district court must determine whether a case is exceptional, a factual determination reviewed for clear error. Id. (citation omitted). “A finding is clearly erroneous when, despite some supporting evidence, ‘the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed.’” Forest Labs., Inc. v. Abbott Labs., 339 F.3d 1324, 1328 (Fed. Cir. 2003) (citing United States v. Gypsum Co., 333 U.S. 364, 395 (1948)). Second, the district court must determine whether attorney fees are appropriate, a determination that we review for an abuse of discretion. Cybor Corp., 138 F.3d at 1460 (citation omitted). “A district court abuses its discretion when its decision is based on clearly erroneous findings of fact, is based on erroneous interpretations of the law, or is clearly unreasonable, arbitrary or fanciful.” Id. (citation omitted).

Moreover, under 28 U.S.C. § 1927:

Any attorney . . . who so multiplies the proceedings in any case unreasonably and vexatiously may be required by the court to satisfy personally the excess costs, expenses, and attorneys' fees reasonably incurred because of such conduct.

28 U.S.C. § 1927 (2000). We review the district court’s denial of SUMCO’s motion for sanctions under section 1927 for an abuse of discretion, under the law of the Ninth Circuit. Trulis v. Barton, 107 F.3d 685, 692 (9th Cir. 1995). The Ninth Circuit has held that section 1927 authorizes sanctions only for the multiplication of proceedings, In re Keegan Mgmt. Co. Sec. Litig., 78 F.3d 431, 435 (9th Cir. 1996), and that section 1927 sanctions require a finding of recklessness or bad faith, B.K.B. v. Maui Police Dep’t, 276 F.3d 1091, 1107 (9th Cir. 2002).

We agree with MEMC that the district court did not clearly err in finding this case not to be exceptional under section 285. As far as MEMC's investigation prior to filing suit for direct infringement under section 271(a) is concerned, there is evidence that MEMC's attorneys performed a good faith, informed comparison of the claims of the '302 patent against the accused wafers. We also agree with MEMC that the district court did not abuse its discretion in denying SUMCO's motion for sanctions under section 1927. SUMCO has failed, on appeal, to point to any evidence that MEMC's attorneys "unreasonably and vexatiously" multiplied the proceedings in this case. Furthermore, "[b]ecause the section authorizes sanctions only for the 'multipli[cation of] proceedings,' it applies only to unnecessary filings and tactics once a lawsuit has begun." In re Keegan Mgmt. Co. Sec. Litig., 78 F.3d at 435 (emphasis added). Thus, the adequacy of MEMC's prefiling investigation is irrelevant to the section 1927 inquiry. Id.

CONCLUSION

We agree with the district court that, as a matter of law, SUMCO cannot be liable for direct infringement of the '302 patent under 35 U.S.C. § 271(a). Summary judgment of non-infringement on MEMC's direct infringement claim was therefore proper. However, because we conclude there are genuine issues of material fact with regard to whether SUMCO is liable for induced infringement of the '302 patent under 35 U.S.C. § 271(b), we hold that the district court erred in granting summary judgment in favor of SUMCO on that claim. That part of the district court's judgment is thus reversed, and the case is remanded to the district court for further proceedings consistent with this opinion. On the cross-appeal, we affirm the district court's denial of SUMCO's

application for fees and expenses relating to MEMC's claim of direct infringement and inducement of infringement.

COSTS

Each party shall bear its own costs.

AFFIRMED-IN-PART, REVERSED-IN-PART, and REMANDED