

NOTE: Pursuant to Fed. Cir. R. 47.6, this disposition is not citable as precedent. It is a public record. This disposition will appear in tables published periodically.

United States Court of Appeals for the Federal Circuit

01-1019, -1020

TEGAL CORPORATION,

Plaintiff-Appellant,

v.

TOKYO ELECTRON COMPANY, LIMITED,

Defendant-Cross Appellant.

DECIDED: February 1, 2002

Before MAYER, Chief Judge, LOURIE, and LINN, Circuit Judges.

LINN, Circuit Judge.

Tegal Corporation ("Tegal") appeals the decision of the District Court for the Eastern District of Virginia granting partial summary judgment of non-infringement in favor of Tokyo Electron Company, Ltd. ("TEL") with respect to certain of TEL's etching systems ("the A-IEM devices"), denying Tegal's Rule 56(f) motion to delay decision on summary judgment to allow additional discovery, and rejecting Tegal's claim construction arguments. TEL cross-appeals the district court's holdings that it is in contempt of an injunction entered in a previous patent infringement suit between Tegal and TEL's subsidiary Tokyo Electron America, Inc. ("TEA") involving other TEL etching systems ("the IEM devices"), and that collateral estoppel bars TEL from re-litigating whether the IEM devices infringe Tegal's patent rights and whether such infringement is willful. For the reasons set forth below, we affirm the district court's judgment granting TEL's motion for partial summary judgment of non-infringement with respect to the A-IEM devices,

denying Tegal's Rule 56(f) motion, and precluding TEL under collateral estoppel from contesting infringement of the IEM devices. Further, we vacate the district court's holdings of contempt and willfulness, in light of our July 16, 2001 decision to dissolve the injunction underlying the contempt sanction and to vacate the findings of pre- and post-filing willfulness. See Tegal Corp. v. Tokyo Electron Am., Inc., 257 F.3d 1331, 1351-52, 59 USPQ2d 1385, 1401 (Fed. Cir. 2001), petition for cert. filed, 70 U.S.L.W. 3444 (U.S. Jan 2, 2002) (No. 01-962).

DISCUSSION

A. Standard of Review

When considering appeals from a district court in patent cases we apply our own circuit law with respect to matters unique to our jurisdiction and apply regional circuit law with respect to procedural matters. See Atari, Inc. v. JS & A Group, Inc., 747 F.2d 1422, 1440, 223 USPQ 1074, 1087 (Fed. Cir. 1984) (en banc).

The issuance of a contempt order is a procedural matter not unique to our jurisdiction and is thus reviewed under regional circuit law. The Fourth Circuit reviews the grant of a contempt order for abuse of discretion. Colonial Williamsburg Found. v. Kittinger Co., 38 F.3d 133, 136-37 (4th Cir. 1994). Collateral estoppel in this case is reviewed in accordance with Suntiger:

With regard to when collateral estoppel applies in a case, the Fourth Circuit, home to the Eastern District of Virginia, has said,

[c]ollateral estoppel is appropriate where the identical issue was "actually litigated, that is, contested by the parties and submitted for determination by the court," where the issue was "actually and necessarily determined by a court of competent jurisdiction," and where preclusion does not work an unfairness in the second trial.

Swentek v. USAIR, 830 F.2d 552, 561 (4th Cir.1987). We agree with the Fourth Circuit's articulation of the test; whether treated as a matter governed by Federal Circuit law, or by Fourth Circuit law, the result is the same.

Suntiger, Inc. v. Scientific Res. Funding Group, 189 F.3d 1327, 1333, 51 USPQ2d 1811, 1814 (Fed. Cir. 1999).

We review de novo a district court's grant of summary judgment. Conroy v. Reebok Int'l, Ltd., 14 F.3d 1570, 1575, 29 USPQ2d 1373, 1377 (Fed. Cir. 1994). Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c); Johnston v. IVAC Corp., 885 F.2d 1574, 1576-77, 12 USPQ2d 1382, 1383 (Fed. Cir. 1989). In determining whether there is a genuine issue of material fact, the evidence must be viewed in the light most favorable to the party opposing the motion, with doubts resolved in favor of the nonmovant. Transmatic, Inc. v. Gulton Indus., Inc., 53 F.3d 1270, 1274, 35 USPQ2d 1373, 1377 (Fed. Cir. 1994).

Claim interpretation raises issues of law that we review de novo. Markman v. Westview Instruments, Inc., 52 F.3d 967, 977, 34 USPQ2d 1321, 1329 (Fed. Cir. 1995) (en banc), aff'd,

517 U.S. 370 (1996).

B. Analysis

Because the present appeal and cross-appeal proceedings involve both the A-IEM and IEM etching systems, respectively, we first review the district court's findings as to the A-IEM etcher (Tegal's appeal), and then those findings relating to the IEM etchers (TEL's cross-appeal).

1. The A-IEM Etcher - Model s85DI

a. Claim Construction

The district court's construction of "low frequency" was a further elaboration of the construction applied by the same court in the earlier litigation between Tegal and TEA ("the TEA litigation"), in which "low frequency" was interpreted to mean "any frequency less than about 1 MHZ." Tegal, 257 F.3d at 1348, 59 USPQ2d at 1398. The court noted in an order following the Markman hearing in the TEA litigation that "the word 'about' indicates an approximate range," so that the scope of "low frequency" includes frequencies "slightly higher than 1 MHZ."

In the present case involving the A-IEM etcher, the district court further construed the phrase "low frequency" as follows: "[a] frequency which is less than about 1MHZ and may be slightly higher than 1 MHZ, but cannot equal or exceed 2 MHZ." In its June 26, 2000 order, the district court explained its refinement:

However, the '223 Patent's prosecution history indicates that during the Patent's reexamination, Tegal distinguished the '223 Patent's claims from the prior art by expressly stating that a frequency of 2.11 MHZ is between the high and low frequencies claimed in the '223 patent. (emphasis in original)

Tegal argues that the intrinsic evidence precludes the assignment of a fixed upper boundary of "cannot equal or exceed 2MHZ." Tegal argues that the specification shows that "low frequency" is intended to mean an approximate range with indeterminate boundaries. Tegal argues that the district court erred in misinterpreting the statement made during prosecution that 2.11 Mhz is between the high and low frequencies.

To construe the meaning of a disputed claim term, the court looks first to the words of the claims themselves. Vitronics Corp. v. Conceptoronic, Inc., 90 F.3d 1576, 1582, 39 USPQ2d 1573, 1576 (Fed. Cir. 1996). A term of technical art, unless defined otherwise by the patentee, has the meaning by which it would be understood by persons experienced in the field of the invention. See, e.g., Multiform Dessicants v. Medzam, 133 F.3d 1473, 1477, 45 USPQ2d 1429, 1432 (Fed. Cir. 1998). After looking to the claim language, we consider the rest of the

intrinsic evidence, that is, the written description and the prosecution history if in evidence. Interactive Gift Express, Inc. v. CompuServe Inc., 256 F.3d 1323, 1331, 59 USPQ2d 1401, 1406-07 (Fed. Cir. 2001). Arguments and amendments made during prosecution of a patent application must be examined to determine the meaning of terms in the claims. Southwall Techs., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1576, 34 USPQ2d 1673, 1676 (Fed. Cir. 1995).

The specification does not assign any particular value to the expression "low frequency" except to describe low frequency as "any frequency less than about 1 MHz." '223 patent, col. 2, ll. 10-11. "Low frequency" is not defined in claim 1, but claim 7 provides an indication that it corresponds to frequencies "below about 1 Mhz." During prosecution, Tegal stated that 2.11 Mhz is between high and low frequencies, thus 2.11 Mhz cannot qualify as low frequency. The district court used the prosecution statement as support for its holding.

Although the district court erred to the extent it relied on the prosecution statement to exclude 2 Mhz, rather than 2.11 Mhz, any error in its construction of "low frequency" in this respect was harmless. The language "less than about 1 MHz" used in the specification is an exclusion of frequencies above about 1 Mhz. Both 2.11 Mhz and 2 Mhz are above about 1 Mhz.

In the TEA litigation, the district court construed the term "plasma" to mean "a charged collection of particles." On appeal in that case, we modified that interpretation: "we construe 'plasma' as a charged collection of particles, generated by the high and/or low frequency electric fields established between the electrodes, excluding arc or spike discharges such as would emanate from a spiked electrode." Tegal, 257 F.3d at 1345, 59 USPQ2d at 1396.

In the present case, the district court adopted the construction of "plasma" suggested by Tegal:

The terms "plasma" and "glow discharge" are used interchangeably in the '223 specification and claim language and have the same meaning. "Plasma" means excited species created by the application of one or more rf frequencies to reactant gases within a reaction volume. The levels of dissociation within the plasma and the levels of ion energy across the plasma sheath will vary at different locations within the reaction volume. Ion bombardment takes place where the plasma couples to electrode surfaces, causing etching and sputtering at those surfaces. An arc discharge is not a plasma within the meaning of the '223.

The district court's construction of "plasma" is based on statements in the specification to the effect that a plasma is an excited species of the reactants and can be generated at a wide range of pressures. TEL argues that plasma should be interpreted to mean a "glow discharge" (see claim 7) having specific numerical ranges of plasma density and electron temperature. TEL argues that the intrinsic evidence fails to define "glow discharge," and that it provided the only extrinsic evidence on the topic, which shows that the term is limited to its proposed specific ranges.

As we noted in our July 16, 2001 opinion, the prosecution history supports equating the term "plasma" with "glow discharge" in the '223 patent. Tegal, 257 F.3d at 1345, 59 USPQ2d at 1395. In remarks distinguishing the Cotton reference during reexamination, the patentee

stated, "[a] plasma in accordance with the present invention is a glow discharge. Cotton, on the other hand, is concerned primarily with an arc discharge." Id. However, we noted that use of the term "glow discharge" is not necessarily limiting at all, much less restrictive in a quantitative manner. Id.

Like the district court, we find no support in the record to support TEL's arguments for a quantitative definition of "plasma." Claim 7 was amended during reexamination to recite "glow discharge," but no other claims were so amended. The evidence does not show that "glow discharge" means what TEL proposes, and there is no evidence that a person having ordinary skill in the art would interpret "glow discharge" any differently from the construction we adopted in the TEA litigation. We see no reason to deviate from the construction we applied on appeal in the TEA litigation, and therefore we adopt the construction of "plasma" set forth in that opinion. See id. at 1396.

b. Summary Judgment

In light of our construction of "low frequency," the A-IEM etcher does not literally infringe claims 1 and 7. See DeMarini Sports, Inc. v. Worth, Inc., 239 F.3d 1314, 1331, 57 USPQ2d 1889, 1899 (Fed. Cir. 2001) ("Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, i.e. when the properly construed claim reads on the accused device exactly.") (citation omitted). Tegal argues that the A-IEM etcher may infringe literally and/or under the doctrine of equivalents because development of the A-IEM device is ongoing, and it is capable of being modified to operate at a low frequency below 1 Mhz. Tegal also alleges that its Rule 56(f) motion to delay the summary judgment decision was incorrectly denied, which prejudiced its attempts to gather more information on the A-IEM etcher.

A showing that a device is capable of being modified to operate in an infringing manner is not sufficient, by itself, to establish infringement. Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316, 1330, 58 USPQ2d 1545, 1554 (Fed. Cir. 2001); High Tech Med. Instrumentation v. New Image Indus., Inc., 49 F.3d 1551, 1556, 33 USPQ2d 2005, 2008-09 (Fed. Cir. 1995). Neither does testing an unpatented combination indicate infringement, except when "significant, unpatented assemblies of elements are tested during the patent term, enabling the infringer to deliver the patented combination in parts to the buyer." Paper Converting Machine Co. v. Magna-Graphics Corp., 745 F.2d 11, 19-20, 223 USPQ 591, 597 (Fed. Cir. 1984).

The district court concluded from a review of the evidence that the A-IEM etcher was not designed to function below 2 Mhz. Earlier testing at a low frequency below 1 Mhz was done in evaluation chambers different in dimension and material from the production version of the accused device.

Whether or not future versions of the A-IEM etcher may infringe is not at issue in this appeal. The record as it stands now does not show a literally infringing version of the A-IEM etcher. The current version of the A-IEM etcher is not designed to operate below 2 Mhz, and the fact that it may be modified to operate under 2 Mhz does not establish infringement literally or under the doctrine of equivalents. See High Tech Med., 49 F.3d at 1556, 33 USPQ2d at 2008-09. The district court correctly granted summary judgment of non-infringement of the '223 patent with regard to the A-IEM etcher.

In support of its decision, the district court cites Tronzo v. Biomet, Inc. for the proposition that

permitting infringement under the doctrine of equivalents is impermissible if it would vitiate a claim limitation, and thereby violate the all-limitations rule. 156 F.3d 1154, 1160, 47 USPQ2d 1829, 1834 (Fed. Cir. 1998). The district court also cites Ethicon for the proposition that subject matter is "specifically excluded" from coverage under the DOE if "its inclusion is somehow inconsistent with the language of the claim." Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 149 F.3d 1309, 1317, 47 USPQ2d 1272, 1277 (Fed. Cir. 1998).

The district court's position appears to be that the "cannot equal or exceed 2 MHz" construction it applied to "low frequency" is a limitation tantamount to the language of the claim, and Tronzo and Ethicon forbid a range of equivalents that would be "inconsistent" with, or write out, the 2 Mhz upper limit. The district court's reliance on the reasoning of Tronzo and Ethicon is correct if applied to the claim language as properly construed, i.e. "less than about 1 MHz." However, to the extent the district court applied Tronzo and Ethicon to its further construction "cannot equal or exceed 2 MHz," it was in error.

If the district court's application of Tronzo and Ethicon was erroneous, this error was harmless under the present facts. The A-IEM etcher cannot be found to infringe under the doctrine of equivalents because 2 Mhz is twice what we have interpreted low frequency to mean, and a finding of equivalence would therefore vitiate that limitation.

Tegal argues that summary judgment of infringement by the A-IEM etcher should be granted in its favor as a matter of law. Tegal contends that its claim of infringement by the A-IEM etcher arises out of the same nucleus of operative fact as that of the TEA litigation, and that TEL had an opportunity to present its defenses of non-infringement with respect to multiple versions of the A-IEM etcher, but chose not to. Instead, TEL resisted production of documents regarding the A-IEM etcher, and as a result the A-IEM etcher was not properly before the court until the present case. Tegal appears to suggest that the defense of non-infringement with respect to the A-IEM etcher was a compulsory counterclaim in the TEA litigation.

Tegal's argument is unavailing. The district court decided that at least one version of the A-IEM etcher did not infringe the claims, and following Tegal's argument, the determination of no infringement should apply to all versions of the A-IEM device. In addition, Tegal's argument is inconsistent with its Rule 56(f) motion to delay proceedings pending additional discovery of the A-IEM etcher. We are not persuaded that the "same nucleus of operative fact" was before the district court in the TEA litigation.

We discern no abuse of discretion in the district court's denial of Tegal's Rule 56(f) motion, and it is therefore affirmed.

2. The IEM Etchers - Model 65DI and 85DI

a. Contempt

TEL cross-appeals the district court's holding that it was in contempt of the injunction entered in prior litigation between Tegal and TEA due to the servicing of IEM devices by Tokyo Electron Massachusetts, Inc. ("TEM"). TEL argues that the district court determination that TEL violated the injunction by "permitting TEM to service the infringing machines" improperly imposed liability for "non-active" inducement. TEL argues that TEM is a separate corporate

entity, that there is no evidence in the record that TEL itself is guilty of violating the injunction, and that the district court did not make findings appropriate to pierce the corporate veil. TEL argues that the language of the injunction is vague as to "facilitating" and that uncertainty should be resolved in TEL's favor.

Tegal argues that TEL had control over TEM, that TEL held the right to service the infringing etchers and affirmatively acted to delegate that right to TEM, and that TEL is playing a corporate "shell game" by transferring the servicing function to TEM after the injunction issued.

We decline to address the merits of this issue. In our July 16, 2001 decision, we vacated the injunction underlying the presently-appealed finding of contempt against TEL. Tegal, 257 F.3d at 1351-52, 59 USPQ2d at 1401. Because the injunction underlying the finding of contempt against TEA has been vacated, the order of contempt and imposition of sanctions on TEL must also be vacated. See California Artificial Stone Paving Co. v. Molitor, 113 U.S. 609, 618 (1885) ("contempt is a severe remedy, and should not be resorted to where there is fair ground of doubt as to the wrongfulness of the defendant's conduct.").

b. Collateral Estoppel

Collateral estoppel was applied by the district court to preclude TEL from contesting whether the IEM devices infringed, whether this infringement was willful, whether U.S. Patent No. 4,464,223 as amended by Reexamination Certificate B1 4,464,223 ("223 patent") is invalid, and whether the '223 patent is enforceable. We review the collateral estoppel issue under regional circuit law. In the Fourth Circuit, application of collateral estoppel requires that: (1) the issue sought to be precluded is identical to one previously litigated; (2) the issue must have been actually determined in the prior proceeding; (3) determination of the issue must have been a necessary part of the proceeding; (4) the prior judgment must be final and valid; and (5) the party against whom estoppel is asserted must have had a full and fair opportunity to litigate the issue in the previous forum. S.E.C. v. Zandford, 238 F.3d 559, 562 (4th Cir. 2001); Sedlack v. Braswell Servs. Group, Inc., 134 F.3d 219, 224 (4th Cir. 1998).

TEL's arguments are based on its contention that it did not have a full and fair opportunity to litigate in the TEA litigation. Tegal argues that the record supports a finding of "alter ego," "virtual representative," and privity between TEA and TEL. Where a non-party is in privity with a party to a prior action, he is also bound by the court's judgment in that action. See McKinney v. Alabama, 424 U.S. 669, 675 (1976); Litchfield v. Crane, 123 U.S. 549, 551 (1887). Tegal argues that the district court correctly concluded that TEA and TEL were "intimately tied together," supported by substantial evidence showing that: (1) TEL and TEA share employees, (2) the senior operating officer of TEA reports to and is employed by TEL, (3) TEA's board of directors is composed largely of TEL officers, (4) TEL's annual reports include consolidated financial statements for TEL and TEA (and all TEL subsidiaries), (5) TEL's website holds out the entire corporate family, including TEL and TEA, as "Tokyo Electron" and "TEL." Tegal argues that TEL had a full opportunity to participate in the TEA litigation, and the district court decided the fact issues underlying the collateral estoppel determination with respect to both companies.

In its February 10, 2000 decision, the district court acknowledged that TEL was not a party to the TEA litigation, but found that TEL was a non-party in privity with TEA. The district court

found that TEA and TEL make joint sales calls to customers in the United States, TEA acts as TEL's representative in negotiations for sales, customers make sales contacts with TEL, TEL books the revenue from sales in the United States, and TEL and TEA are parties to a Representative Agreement in which TEL agrees to indemnify against and hold TEA harmless from all damages and costs which may be assessed against TEA in any claim by third parties of patent infringement. The district court regarded these close ties a sufficient basis for its findings of privity and "virtual representative," and concluded that TEL was given ample opportunity to litigate the issues surrounding the IEM etchers.

We discern no error by the district court in these rulings. TEL deliberately avoided litigation in the previous case involving the IEM etchers, and now asks for a chance to revisit the same issues decided in that case. TEL does not get another bite at the apple. We affirm the district court's holdings that collateral estoppel precludes TEL from re-litigating the issues of whether the IEM etchers infringe the '223 patent, whether the '223 patent is enforceable, and whether the '223 patent is non-obvious. Each of these holdings was affirmed on appeal to this court. See Tegal, 257 F.3d at 1351-52, 59 USPQ2d at 1401.

As to the district court's collateral estoppel determination of willfulness, TEL argues that willfulness requires an assessment of the infringer's state of mind, and TEL's state of mind was not assessed in the TEA litigation. TEL argues that to impute to TEL the state of mind of TEA, the district court must pierce the corporate veil and find that TEA was TEL's "alter ego." Instead, according to TEL, the district court found that TEA was TEL's "virtual representative," a finding more akin to privity, which is insufficient for a finding of "alter ego."

In our July 16, 2001 opinion, we vacated the district court's findings of pre- and post-filing willfulness. See id. Although TEL is estopped from contesting the district court's holdings as to infringement, enforceability, and non-obviousness; collateral estoppel is not triggered as to the district court's determinations overturned on appeal. See, e.g., Innovad, Inc. v. Microsoft Corp., 260 F.3d 1326, 1334, 59 USPQ2d 1676, 1681 (Fed. Cir. 2001) ("A 'full and fair opportunity to litigate' a particular issue includes a party's ability to appeal."). In light of our disposition in the TEA case, we vacate the district court's finding of willfulness on the part of TEL with regard to the IEM devices. Thus, TEL is not estopped from arguing that the '223 patent is anticipated by the Itakura reference, nor is TEL estopped from contesting that its infringement was willful with regard to the IEM etchers.