

# United States Court of Appeals for the Federal Circuit

---

**TOSHIBA CORPORATION,**  
*Plaintiff-Appellant,*

v.

**IMATION CORP., MOSER BAER INDIA LTD.,  
GLYPHICS MEDIA, INC.,  
CMC MAGNETICS CORP., HOTAN CORP.,  
KHYPERMEDIA CORP.,  
RITEK CORP., AND ADVANCED MEDIA, INC.,**  
*Defendants-Appellees.*

---

2011-1204

---

Appeal from the United States District Court for the Western District of Wisconsin in case no. 09-CV-0305, Magistrate Judge Stephen L. Crocker.

---

Decided: June 11, 2012

---

DEANNE E. MAYNARD, Morrison & Foerster LLP, of Washington, DC, argued for plaintiff-appellant. With her on the brief were G. BRIAN BUSEY, BRIAN R. MATSUI, MARC A. HEARRON and ADAM A. ELTOUKHY; and KARL J. KRAMER, of Palo Alto, California.

ALAN D. SMITH, Fish & Richardson P.C., of Boston, Massachusetts, argued for defendants-appellees. With him on the brief were CHRISTOPHER DILLON, STEPHEN A. MARSHALL, SAMUEL SHERRY and MAUREEN M. BRENNER.

---

Before DYK, SCHALL, and MOORE, *Circuit Judges*.

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

Opinion concurring-in-part and dissenting-in-part filed by  
*Circuit Judge* DYK.

MOORE, *Circuit Judge*.

Toshiba Corporation accused Imation Corporation et al. (collectively, Appellees) of infringing claims of U.S. Patent nos. 5,892,751 ('751 patent) and 5,831,966 ('966 patent) relating to optical disc technology. The district court granted summary judgment of non-infringement for the asserted claims under both patents except for a *de minimis* claim of direct infringement that was later dismissed. For the reasons set forth below, we *affirm-in-part* and *vacate-in-part* the grant of summary judgment of non-infringement and *remand*.

#### BACKGROUND

DVDs are optical discs used to store data or digital content such as movies. DVDs are made in several formats, which are governed by technical standards that allow for compatibility among DVD players and recorders. Appellees manufacture or sell recordable blank DVDs that comply with these standards. The DVD standards generally organize a disc into three areas: a "lead-in area" which contains information about the DVD's structure and properties; a "data area" where data is recorded and stored; and a "lead-out area" which indicates the functional end of the data area. *E.g.*, J.A. 2356.

There are two methods to record data onto DVDs: disc-at-once mode and multisession mode. The disc-at-once mode writes all of the data to the disc in a single session, including the lead-in area containing a test pattern and the lead-out area. Multisession mode allows a user to record some data in one session and then later record additional data to the DVD in another session. Once a user records all of the data on the DVD, the user may choose to “finalize” the DVD, which writes the test pattern in the lead-in area and writes the lead-out area. Prior to finalization, the DVD does not contain the test pattern or the lead-out area. The district court identified as an undisputed fact that a recordable DVD “can be played in the drive in which it was recorded without finalization, but not on other recorders or conventional DVD players.” *Toshiba Corp. v. Imation Corp.*, No. 09-cv-305-slc, slip op. at 13 (W.D. Wis. Dec. 28, 2010). A finalized DVD, however, can be played on any standardized DVD player or drive.

Toshiba accused Appellees of infringing claims of the ’751 and ’966 patents. Appellees moved for summary judgment that they did not indirectly infringe the ’751 patent. The district court granted the motion, concluding that the use of unfinalized DVDs was a substantial non-infringing use. The court held that “[b]oth theories of ‘indirect infringement’ – that is, contributory and inducing infringement – fail if there are any ‘substantial’ non-infringing uses.” *Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 25-26 (citing *Dynacore Holdings Corp. v. U.S. Phillips Corp.*, 363 F.3d 1263, 1275 (Fed. Cir. 2004)).

Appellees also moved for summary judgment that they did not infringe the ’966 patent. Asserted claim 1 of the ’966 patent requires that the lead-in area contain information identifying the structure of the recording medium. The district court construed terms of claim 1 to

require that such information have the purpose of identifying information for the entire recording medium. *Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 22. Because the district court held that the identifying information on the accused DVDs did not have the purpose of providing information for the entire recording medium, the court granted summary judgment of non-infringement as to the '966 patent. *Id.* at \*22, 24.

The parties stipulated to dismissal of the remaining *de minimis* claim of direct infringement. J.A. 22246. Toshiba appeals from the district court's grant of summary judgment of non-infringement for both patents and its construction of certain '966 patent claim terms. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

We review a district court's grant of summary judgment *de novo*. *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1325 (Fed. Cir. 2010). Summary judgment is appropriate when, drawing all justifiable inferences in the non-movant's favor, there exists no genuine issue of material fact and the movant is entitled to judgment as a matter of law. Fed. R. Civ. P. 56; *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986). A dispute about a material fact is genuine "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson*, 477 U.S. at 248.

#### I. '751 Patent

The '751 patent is directed to how data is written onto DVDs. The claims of the '751 patent, like the DVD standards, require a lead-in area, data area, and lead-out area. *E.g.*, '751 patent cl.1. The asserted claims also require that the optical discs (e.g., DVDs) have a test pattern included in the lead-in area. *Id.* DVD players

may use the test pattern to ensure data is read properly from the DVD, and to make adjustments if not. *Id.* abstract & col.2 ll.34-44. The test pattern and the lead-out area are only written when the disc is recorded in disc-at-once mode or finalized; unfinalized DVDs do not contain the test pattern or the lead-out area. Toshiba does not dispute that unfinalized DVDs do not infringe the '751 patent. *See* Appellant's Br. 10.

The district court concluded "the evidence establishes that recording DVDs without finalizing them is a non-infringing use, and there is no evidence that this use is not substantial." *Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 26. The district court noted that there is evidence of a "commonsensical and efficient" reason not to finalize a disc: a user may continue recording new material on the disc, and as long as the user keeps the disc in the same machine, the user can read all of the recorded material without finalizing the disc. *Id.* at \*27. The court also noted that although manuals and other marketing materials recommended finalizing DVDs, they do not suggest that finalization is the only proper way to use DVDs or that use of unfinalized DVDs is "aberrant" or "occasional." *Id.* at \*28. The materials, according to the district court, simply explain that finalization is required for using DVDs in a different recorder or player. *Id.* Finally, the court noted that Toshiba failed to introduce evidence showing that playback in other recorders or players is a use preferred over playback in the same DVD recorder, which does not require finalization. *Id.* The district court thus held that Toshiba failed to introduce any evidence to create a genuine issue of material fact that using unfinalized DVDs is not a substantial non-infringing use. *Id.* at \*29.

The court granted summary judgment of non-infringement for Toshiba's contributory and induced

infringement allegations, holding that both infringement theories “fail if there are any ‘substantial’ non-infringing uses.” *Id.* at \*26, 30. Toshiba appeals the ruling that there is a substantial non-infringing use and that a substantial non-infringing use precludes liability for induced infringement.

#### A. Contributory Infringement

To establish contributory infringement liability, the patent owner must show, among other things, that there are no substantial non-infringing uses. 35 U.S.C. § 271(c). “[N]on-infringing uses are substantial when they are not unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.” *Vita-Mix Corp. v. Basic Holding, Inc.*, 581 F.3d 1317, 1327 (Fed. Cir. 2009). In assessing whether a use is substantial, the fact-finder may consider “the use’s frequency, . . . the use’s practicality, the invention’s intended purpose, and the intended market.” *i4i Ltd. P’ship v. Microsoft Corp.*, 598 F.3d 831, 851 (Fed. Cir. 2010).

Toshiba argues that the intended use of DVDs is the long-term storage of data that may be accessed on any industry-standard DVD player or recorder, and that Appellees instruct their users that finalization is necessary to accomplish this. Appellant’s Br. 29, 31-33. For example, the accused DVDs are advertised as compliant with industry standards, which, according to Toshiba, require that the DVDs be finalized. *Id.* at 30-31. Toshiba contends that unfinalized DVDs recorded in multisession mode are merely an interim step in the process of recording data, and that finalization is necessary to achieve the intended result. *Id.* at 35. Toshiba argues that the use of unfinalized DVDs is “unintended” and “impractical,” and thus not substantial.

Appellees contend there is no evidence that the recording and playing of unfinalized DVDs is not a substantial non-infringing use. Appellees' Br. 41. Appellees argue that the evidence shows that users choose not to finalize the DVDs so that they can continue recording data to the disc and that the standards support the use of unfinalized DVDs. *Id.* at 42-43. Appellees also argue there are good reasons not to finalize: finalization prevents users from adding more data; it takes time; and it is not necessary in order to use the DVD in the device in which it was recorded. *Id.* at 43. Appellees claim that even if it were true that they recommended finalizing DVDs, recommending an infringing use (finalizing) is not evidence that the non-infringing use is not substantial. *Id.* at 44. Appellees note that Toshiba has no admissible expert testimony regarding unfinalized DVDs, no end user testimony regarding the use of unfinalized DVDs, and no documents or other evidence showing that the use of unfinalized DVDs is unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental. *Id.* at 43-44. Appellees thus argue Toshiba failed to create a genuine issue of fact whether the use of unfinalized DVDs constitutes a substantial non-infringing use.

We agree with Appellees that Toshiba failed to proffer evidence that creates a genuine issue of material fact. Because Toshiba had the burden to prove the lack of substantial non-infringing uses, Toshiba was required to put forth evidence showing that the use of unfinalized DVDs was not substantial. See *Golden Blount, Inc. v. Robert H. Peterson Co.*, 438 F.3d 1354, 1363 (Fed. Cir. 2006). There is, however, insufficient evidence in the record to create a genuine issue of fact. Toshiba does not contest that unfinalized DVDs do not infringe. Toshiba admits that users may record data on the accused DVDs without ever finalizing the DVDs, and that such DVDs

may be read in the recorder in which the data was written. Appellant's Br. 10. Toshiba presented no survey, expert, or other evidence showing how frequently users choose not to finalize DVDs. Toshiba did not introduce evidence showing that using unfinalized DVDs is “unusual, far-fetched, illusory, impractical, occasional, aberrant, or experimental.” *See Vita-Mix*, 581 F.3d at 1327. Toshiba cites the DVD standards, which it claims require finalization, but even the DVD standards recognize that users may record to DVDs without finalization. *See, e.g.*, Ecma Int'l, Standard ECMA-359, at 75 (1st ed. 2004) (J.A. 2378) (identifying disc status bits indicating the disc was recorded in multisession mode and is unfinalized). Toshiba did not introduce evidence showing how often users will later finalize the DVDs, thereby making the use of unfinalized DVDs an interim step. The evidence Toshiba cites merely shows that it is recommended that users finalize their DVDs. Recommending one use over another does not mean the non-recommended use is not substantial. Moreover, even Toshiba’s own user manual provides evidence that users may also choose not to finalize DVDs because it is a laborious process. *See* Toshiba, DVD Video Recorder DR430KU: Owner’s Manual, at 8 (2010) (J.A. 12979). Toshiba had the burden of proof, but failed to introduce evidence sufficient to create a genuine issue of material fact as to whether using unfinalized DVDs was not a substantial non-infringing use. Therefore, the district court did not err in granting summary judgment of no contributory infringement.

#### B. Induced Infringement

“Whoever actively induces infringement of a patent shall be liable as an infringer.” 35 U.S.C. § 271(b). To prove induced infringement, the patentee “must show direct infringement, and that the alleged infringer ‘know-

ingly induced infringement and possessed specific intent to encourage another's infringement." *i4i*, 598 F.3d at 851 (quoting *MEMC Elec. Materials, Inc. v. Mitsubishi Materials Silicon Corp.*, 420 F.3d 1369, 1378 (Fed. Cir. 2005)).

The district court held that the existence of a substantial non-infringing use precludes a finding of induced infringement. *See Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 26. The court stated that "[b]oth theories of 'indirect infringement' – that is, contributory and inducing infringement – fail if there are any 'substantial' non-infringing uses." *Id.* The district court erred as a matter of law. The existence of a substantial non-infringing use does not preclude a finding of inducement. *Erbe Elektromedizin GmbH v. Canaday Tech. LLC*, 629 F.3d 1278, 1284 (Fed. Cir. 2010). Appellees attempt to recast the district court's error by suggesting it was "directed at the theory Toshiba advanced in this case, and is not a general statement of the law of inducement." Appellees' Br. 36. The district court's opinion, however, is clear on its face and contains no language suggesting its statement was anything other than a general statement of the law. *Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 26.

Appellees alternatively argue that we should affirm the grant of summary judgment of no inducement because Toshiba introduced no evidence of direct infringement. Appellees' Br. 34. Direct infringement is a required element to establish induced infringement. *i4i*, 598 F.3d at 851. Appellees argue that Toshiba failed to create a genuine issue of material fact as to whether users directly infringed the '751 patent. *See id.* To satisfy the direct infringement requirement, the patentee "must either point to specific instances of direct infringement or show that the accused device necessarily infringes the patent in suit." *ACCO Brands, Inc. v. ABA Locks Mfr. Co.*, 501 F.3d

1307, 1313 (Fed. Cir. 2007) (citing *Dynacore*, 363 F.3d at 1275-76). Appellees argue that because users must choose either to use the disc-at-once mode or to finalize the disc in order to infringe, Toshiba must come forward with evidence of specific instances of infringement. *See* Appellees' Br. 34. Appellees contend that the record shows that the "only person who ever finalized a disc was Toshiba's expert." *Id.* at 35.

We conclude that it would not be correct to affirm on this alternative basis. There is sufficient evidence to create a genuine issue of material fact. "Direct infringement can be proven by circumstantial evidence." *Vita-Mix*, 581 F.3d at 1326 (citing *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1272 (Fed. Cir. 1986)); *see also Alco Standard Corp v. Tenn. Valley Auth.*, 808 F.2d 1490, 1503 (Fed. Cir. 1986) ("Although the evidence of infringement is circumstantial, that does not make it any less credible or persuasive."). Circumstantial evidence must show that at least one person directly infringed an asserted claim during the relevant time period. *See Lucent Techs., Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1317 (Fed. Cir. 2009) ("[A] finding of infringement can rest on as little as one instance of the claimed method being performed during the pertinent time period.").

The claims at issue require discs to have a lead-in area, data area, and lead-out area, wherein the lead-in area includes a test pattern. *E.g.*, '751 patent cl.1. Users may record data onto DVDs using either the disc-at-once mode or multisession mode. Every time a user selects the disc-at-once mode to record data, the DVD infringes because the disc-at-once mode automatically writes the lead-in area with the test pattern, the data area, and the lead-out area. The disc-at-once mode does not contain a separate finalization option. Thus, when the disc-at-once mode is used, the DVD necessarily infringes. Users

alternatively may record DVDs in multisession mode. In multisession mode, users have the option to record some data but not finalize the DVD, in which case the recorder does not write the test pattern or the lead-out area. If a user chooses not to finalize a DVD, however, only the recorder that wrote the DVD will be able to play or read from the DVD. To ensure the DVD is readable by other recorders or players, a user must finalize the DVD.

Although some users may use multisession mode and choose not to finalize, such use is contrary to Appellees' instructions to users that they must finalize the DVDs to ensure compatibility. *E.g.*, J.A. 12850 ("Discs must be finalized for playback in DVD players."). Some materials even recommended against using multisession mode – which allows a user not to finalize the DVD – stating, "For the best compatibility with Data [DVDs], do not use the multisession option." J.A. 12805, 13164. Appellees also designed the DVDs to comply with the standards, which provide that a DVD "shall" be divided into three areas: a lead-in area, a data area, and a lead-out area. *E.g.*, Ecma Int'l, Standard ECMA-359, at 53 (J.A. 2356). The lead-out area is only written when the disc is finalized or written in the disc-at-once mode. The purpose of the DVD standards is to provide compatibility among various disc drives, which requires using the disc-at-once mode or finalizing the DVDs. *See, e.g.*, J.A. 3696. In light of all of the evidence in the record regarding why someone would finalize or use the disc-at-once mode, we hold there is enough to preclude summary judgment of non-infringement.

This is not the first time we have concluded that where an alleged infringer designs a product for use in an infringing way and instructs users to use the product in an infringing way, there is sufficient evidence for a jury to find direct infringement. For example in *Lucent*, like in

this case, the accused infringer designed its products to practice the claimed invention and instructed its customers to use the accused product in an infringing way. 580 F.3d at 1318. We held that this was sufficient to support the jury's verdict that someone other than Lucent's expert used the product in an infringing way. *Id.* Similar to *Lucent*, Appellees designed the DVDs to be used in an infringing way and instructed users to use them in the infringing way by finalizing the DVDs or using the disc-at-once mode. This is sufficient to preclude summary judgment.

Appellees contend this case is more like *Fujitsu* and *ACCO*. Argument at 17:05-17:55, 20:00-20:25, *Toshiba Corp. v. Imation Corp.*, No. 2011-1204, available at <http://oralarguments.cafc.uscourts.gov/default.aspx?fl=2011-1204.mp3>; Appellees' Br. 34. In *Fujitsu*, the accused products would infringe only when a user chose an option in the accused software. 620 F.3d at 1328. Unlike this case, however, the infringing option in *Fujitsu* was disabled by default, and the relevant standard and user manuals simply described how to use the product in an infringing manner. *Id.* We held that the evidence in *Fujitsu* showed that the device was "capable of" infringing but did not suggest that users actually used it in an infringing way. *Id.* at 1329. In the present case, however, recording DVDs in disc-at-once mode or multisession mode with finalization is not disabled by default, and Appellees go beyond describing the infringing mode; they recommended that customers use the infringing mode. Further, the DVD standards require a lead-out area, which is only written when the disc is finalized or written using the disc-at-once mode. Thus, the evidence in this case goes beyond showing that the accused DVDs are "capable of" infringing; the evidence is sufficient to create

a genuine issue of material fact, thus precluding summary judgment.

*ACCO* also involved an accused product that was “capable of” infringing. 501 F.3d at 1313-14. In *ACCO*, there were instructions describing the infringing use and different instructions describing the non-infringing use. *Id.* at 1312-13. The products in *ACCO*, however, were sold only with instructions describing the non-infringing use. *Id.* at 1313. The only other evidence relied on by the patentee in *ACCO* was its expert testimony that the infringing mode was the “natural and intuitive way” to operate the device. *Id.* *ACCO*’s expert, however, “had no opinion” on whether others used the device in an infringing mode. *Id.* Unlike the situation in *ACCO*, Appellees recommended that their users use the DVDs in the infringing mode. Some materials even recommended against using the non-infringing mode. Toshiba also presented evidence concerning industry standards, and expert evidence that compliance with such standards is “a commercial necessity.” See J.A. 5034-35 (“It is necessary, and expected by the marketplace, that the discs within a particular format comply with the standards so that they can be used interchangeably.”); see also Appellant’s Br. 30-31. Again, the evidence in this case shows more than the fact that the accused DVDs are merely “capable of” infringing.

We hold there is sufficient evidence such that a “jury in the present case could . . . reasonably conclude[] that, sometime during the relevant period . . . more likely than not one person somewhere in the United States” finalized DVDs or used the disc-at-once mode. See *Lucent*, 580 F.3d at 1318. Appellees designed their DVDs to comply with the DVD standards, instructed users to use them in an infringing manner, and some recommended against using the DVDs in a non-infringing manner. Appellees also advertised their DVDs as compliant with the indus-

try standards. To satisfy the purpose of the standards (compatibility), the DVDs must be finalized or written using the disc-at-once mode. This is sufficient evidence to create a triable issue of fact of whether users finalized DVDs or used the disc-at-once mode.

On appeal, Appellees ask us to reach additional issues not addressed by the district court. We leave it to the district court to reach those issues in the first instance.

## II. '966 Patent

Toshiba appeals the district court's grant of summary judgment of non-infringement and its construction of two terms in claim 1 of the '966 patent. We review claim construction *de novo*. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455-56 (Fed. Cir. 1998) (en banc). The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc).

The '966 patent describes a recording medium (e.g., a DVD) containing a "management region" with information about the structure of the medium. '966 patent at [57]. DVDs may be one-sided or two-sided, meaning data can be recorded on only one side or on both sides. A DVD may also have one or more layers on a single side for recording data. The DVD standards require the lead-in area of DVDs to include data that indicate the number of layers on *the current side of the disc* (via bits b5 and b6) and identify the current layer (via bit b24). E.g., J.A. 3707, 3712. Claim 1 requires that the disc provide identifying information for the *medium*:

A recording medium comprising:

at least one recording plane, wherein each recording plane on which data is recorded includes:

- a data region in which data is recorded; and
- a management region including *number-of-recording planes identifying information that represents the number of recording planes of the recording medium* and *recording-plane identifying information* that uniquely identifies that recording plane.

'966 patent cl.1 (emphasis added). The district court construed the “number-of-recording planes identifying information” to mean “information *whose purpose* is to identify the number of recording planes on the recording medium.” *Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 22. The court construed the “recording-plane identifying information that uniquely identifies that recording plane” as “information *whose purpose* is to identify the recording plane being reproduced.” *Id.*

Toshiba accused only single-sided DVDs of infringing the '966 patent. In single sided DVDs, there are recording planes on only one side of the disc. As a result, the number of planes on the single side is also the number of planes on the medium as a whole. The accused DVDs comply with the standards by providing the identifying information via bits b5, b6, and b24. Toshiba alleged that bits b5 and b6 meet the “number-of-recording planes” limitation because they identify the number of layers on the medium (since they are single-sided discs), and that bit b24 meets the “recording-plane identifying information.”

Because the purpose of the bits (b5, b6, and b24) on the accused devices was to identify information for only

one side of the disc, the district court held that they do not serve the purpose of identifying information for the disc as a whole, and thus do not infringe. *Id.* at \*24. The court recognized that the bits on the accused discs provide identifying information as to the entire medium, but reasoned that “the purpose of the bits on the accused products is merely to identify the number of planes and the recording plane on a given *side* of a disc,” not the entire medium. *Id.* at \*23-24. The court stated, “[t]he fact that the bits on the accused discs happen to have the same information as they would if the standards properly distinguished two-sided discs does not establish that these bits satisfy the required claim elements.” *Id.*

Toshiba appeals the district court’s construction, arguing that the court improperly read a “purpose” requirement into claim 1. Appellant’s Br. 37. Toshiba contends that each limitation should have been given its plain and ordinary meaning, as recited in the claim itself. *Id.* at 38. The plain meaning, according to Toshiba, simply requires that the identifying information represent the number of (or identity of) the planes on the medium regardless of any particular purpose or intent. *Id.* at 39. Toshiba also argues that the district court’s construction improperly imported a limitation from the specification into the claim. *Id.* at 43. Toshiba contends that dependent claims 3 and 5 captured the disc side requirements discussed in the specification and prosecution history. *Id.* at 43-46. Toshiba notes that “planes,” as recited in claim 1, are not the same as “sides.” *Id.* at 48. Toshiba thus argues the district court erred in granting summary judgment of non-infringement based on an erroneous construction.

Appellees argue that the district court properly construed the terms and that the court’s inclusion of the word “purpose” did not read a limitation into the claim. Appel-

lees' Br. 53, 58. Appellees contend that it was inserted to resolve a dispute as to whether the claim requires that the information be intended to convey the number of (or identity of) the recording planes on the medium, or whether it is sufficient that the information "coincidentally" corresponds to the number of (or identity of) the planes on the medium. *Id.* at 58. Appellees argue that the language of the claims, the specification, and the prosecution history explain that the purpose of the limitations is to identify information as to the entire medium. *Id.* at 53-56. Because the identifying information on the accused single-sided discs does not have the purpose of providing information as to the entire medium, Appellees contend they do not infringe. *Id.* at 59-63.

We agree with Toshiba that the district court improperly read a "purpose" requirement into claim 1. The plain language of the claim requires that the number-of-recording planes identifying information "*represents* the number of recording planes of the recording medium." '966 patent cl.1 (emphasis added). Similarly, the claim requires that the recording-plane identifying information "*uniquely identifies* that recording plane." *Id.* The language of the claim only requires that the information "*represents*" the number of recording planes or "*uniquely identifies*" the recording plane. These are structural limitations. There is no dispute that the accused single-sided, single-layer DVDs have these structural elements. The district court expressly acknowledged that the accused devices did have these structural elements. *Toshiba Corp.*, No. 09-cv-305-slc, slip op. at 24 ("The fact that the bits on the accused discs happen to have the same information as they would if the standards properly distinguished two-sided discs does not establish that these bits satisfy the required claim elements."); *see also id.* at \*22-23 ("Plaintiff continues to contend that defen-

dants' single-sided, single layer discs meet the claim language because these discs indicate the total number of planes on the disc (one) and which plane is reproduced (the only one). However, as defendants point out, even though this may be literally true, it is only because plaintiff has carefully circumscribed the accused products to those where a single side of the disc is the entire disc."). Bits b5 and b6 on the accused DVDs accurately represent that the DVDs have one recording plane. Bit b24 on these DVDs uniquely identifies that the recording plane is the DVD's single recording plane. Appellees do not dispute the fact that these bits accurately reflect that the accused single-sided, single-layer DVDs contain one recording plane. See Appellees' Br. 57-58.

Appellees argue that these facts are insufficient because the patent contemplates two-sided discs. For example, Appellees cite to figure 2 in the specification and to the prosecution history, both of which refer to multi-sided discs. Appellees' Br. 54-56. Figure 2 describes a "number-of-disc-sides identifier" and a "disc side identifier." '966 patent fig.2. The number-of-disc-sides identifier "represents whether the disc is a double-sided disc or a single-sided disc," and the disc side identifier indicates which side of a double-sided disc is being reproduced. '966 patent col.6 ll.25-28. The prosecution history also refers to the number-of-disc-sides identifying information. J.A. 761-62 ("It is clear that this information must be provided on each side of the disc – i.e., each recording plane – in order for the *disc side identifier* 3 to serve its purpose of identifying which side is being recorded/reproduced." (emphasis added)).

Claim 1, however, is not limited to multi-sided discs, but instead is written more broadly. The number-of-disc-sides identifier and disc side identifier are *not* limitations in claim 1. The plain language of claim 1, which is writ-

ten in terms of “planes,” is distinct and different from the number of (or identity of) the disc sides disclosed in the specification. This is especially clear in light of dependent claim 5, which adds an additional requirement of indicating the number of disc sides. Claim 5 recites:

The recording medium as in claim 1, wherein: the number-of-recording-planes identifying information indicates that the recording medium is one of a single-sided disc and a double-sided disc.

'966 patent cl.5. Claim 1 is not so limited. Appellees cannot overcome the plain meaning of claim 1 by pointing to an embodiment disclosed in the specification or prosecution history. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (An accused infringer cannot overcome the plain meaning of a claim term “simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history.”). It is “not enough that the only embodiments, or all of the embodiments, contain a particular limitation.” *Thorner v. Sony Computer Entm't Am. LLC*, 669 F.3d 1362, 1366 (Fed. Cir. 2012); *see also CCS Fitness*, 288 F.3d at 1366 (“[O]ur case law makes clear that a patentee need not ‘describe in the specification every conceivable and possible future embodiment of his invention.’” (citation omitted)). We do not read limitations from the specification into claims.

Appellees do not argue that there was a disclaimer limiting the scope of claim 1. Appellees also do not argue that the patentee acted as its own lexicographer. Absent disclaimer or lexicography, the plain meaning of the claim controls. *Thorner*, 669 F.3d at 1365 (There are “two exceptions” to the general rule that the plain meaning of the claim controls: “1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the

patentee disavows the full scope of a claim term either in the specification or during prosecution.” (citing *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1580 (Fed. Cir. 1996))). This is not a case where the number of recording planes necessarily pre-supposes two-sided discs. The claim is broad enough to read on both single-sided and double-sided discs.

Toshiba accused only single-sided, single-layer DVDs of infringing claim 1. The identifying information in an accused single-sided, single-layer DVD “represents” and “uniquely identifies” information as to the entire disc. “[A]pparatus claims cover what a device is, not what a device does.” *Paragon Solutions, LLC v. Timex Corp.*, 566 F.3d 1075, 1090 (Fed. Cir. 2009) (quoting *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1468 (Fed. Cir. 1990)). We thus reject Appellees’ arguments that the accused DVDs do not infringe because the identifying information in the DVDs do not have the “purpose” of identifying information as to the entire medium.

The dissent suggests that the majority’s construction, Appellant’s construction, Appellees’ construction, and the district court’s construction are all in error, and instead argues for a completely different construction of its own. The dissent argues that the “number-of-recording planes” limitation in claim 1 requires identifying both the number of disc sides and the number of layers per side. Dissent Op. at 2. The Appellant’s and Appellees’ dispute concerns whether the limitations must have the “purpose” of identifying information as to the entire medium. Both parties reject the notion that claim 1 requires differentiation between one-sided and two-sided discs. Appellant’s Br. 43; Appellees’ Br. 65-67. Appellees, who defend the district court’s construction on appeal, specifically argue that the district court’s construction does not contain any such requirement, stating: “nowhere in the [district

court’s] claim construction order is there a statement or even a suggestion that the terms in claim 1 require identifying whether the recording medium is single-sided or double-sided.” Appellees’ Br. 65; *see also* Appellees’ Br. 65 (“Nothing in these constructions relates to the sides of the medium.”); Appellees’ Br. 66 (“[T]here is nothing in the court’s decision that limits Claim 1 to sides. The court’s orders simply state that the identifiers have to account for all recording planes on the medium.”); Appellees’ Br. 66 (arguing that the district court’s summary judgment decision clarifies that “the ‘purpose’ of the bits is to identify the number of recording planes on the medium – and not to differentiate between single-sided and double-sided discs”); Appellees’ Br. 67 (“The [district] court did not construe Claim 1 as requiring differentiation between single-sided and double-sided discs.”). Neither party has ever argued for the dissent’s construction.

The dissent makes three main arguments in support of its construction: 1) that the references to disc sides in the specification and prosecution history show that an ordinary artisan would interpret “number-of-recording planes identifying information” to require identifying both the number of recording layers and the number of disc sides, 2) that the applicant equated a “recording plane” to “a side of the disc” to overcome a 35 U.S.C. § 112 rejection during prosecution, and 3) that the principles of claim differentiation do not support a different result because dependent claim 5 narrows claim 1 by covering only embodiments with one layer per side. Dissent Op. at 2-5. We address each argument in turn.

First, as explained above, the number-of-recording planes limitation in claim 1 only requires “information that represents the number of recording planes of the recording medium.” ’966 patent cl.1. Identifying the number of planes on a recording medium does not require

identifying the number of disc sides. It is not enough that the only embodiment in the specification describes identifying disc sides. *See Thorner*, 669 F.3d at 1366. Claim 1 recites “planes,” not “disc sides.” The dissent’s proposed construction improperly reads in a limitation from the specification. Dependent claim 5 captures the additional number-of-disc-sides identifier limitation. ’966 patent cl.5. Claim 1, the only asserted claim, does not require indicating the number of disc sides.

With regard to the dissent’s second argument, to overcome a 35 U.S.C. § 112 rejection during prosecution, the applicant explained:

As illustrated in FIG. 2 and described in the Specification at 12-13 a number-of-disc-sides identifier 2 and a disc side identifier 3 are recorded in . . . the disc. It is clear that this information must be provided on each side of the disc – i.e., each recording plane – in order for the disc side identifier 3 to serve its purpose of identifying which side is being recorded/reproduced.

J.A. 761-62 (citations omitted). A statement in the prosecution history can only amount to disclaimer if the applicant “clearly and unambiguously” disavowed claim scope. *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1370-71 (Fed. Cir. 2003) (citations omitted). This language is not a clear and unambiguous disavowal of claim scope. When the applicant stated “each side of the disc – i.e., each recording plane,” the applicant was merely explaining that in the example in figure 2, a side of the disc constitutes a recording plane. It does not follow that a recording plane is to be equated with a disc side in all instances or that a number of recording planes identifier must also indicate the number of disc sides. In fact, two weeks after the applicant made this statement,

the examiner's statement of reasons for allowance shows that the examiner did not interpret this statement as limiting recording planes to disc sides. The examiner stated:

[N]one of the cited prior art shows . . . a disk having at least one recording plane . . . and a management region including the number of recording planes identifying the number of recording planes on the disk and a separate recording plane identifying information that uniquely identify that recording plane (*such as side A or side B or upper surface or lower surface*).

J.A. 756 (emphasis added). The dissent claims that this shows that the examiner viewed the “number-of-recording planes identifying information” to require identification of the number of sides as well as the number of surfaces (i.e., layers) on each side. Dissent Op. at 4. The dissent, however, mischaracterizes the examiner’s statement. The examiner stated that recording plane identifying information may indicate “side A or side B **or** upper surface or lower surface.” J.A. 756 (emphasis added). Had the examiner understood that identifying both were required, the examiner would have used “and” rather than “or.” Instead, this language shows that the examiner understood that recording plane identifying information is not limited to identifying disc sides.

Finally, the dissent argues that claim differentiation does not support a different result. The dissent incorrectly concludes that claim 5 narrows claim 1 by covering only embodiments with one layer per side. Dissent Op. at 5. In our view, this construction is at odds with the plain language of claim 5. In addition, it has not been advocated by any party. Claim 5 recites:

The recording medium as in claim 1, wherein: the number-of-recording-planes identifying information indicates that the recording medium is one of a single-sided disc and a double-sided disc.

'966 patent cl.5. Claim 5 narrows claim 1 by additionally requiring identification of the number of disc sides. Claim 5 thus covers discs with identifying information that indicates both the number of planes on the medium *and* the number of sides. The prosecution history shows that the applicant added claim 5 "in order to claim further aspects of the invention," namely to add a limitation "indicating whether the recording medium is a single-sided or a double-sided disc." J.A. 1380; *see also* J.A. 1380 ("The ability to determine which side of the disc that a recording layer is on facilitates reproduction because, for example, if a recording plane on side A of a double-sided disc is to be reproduced, the apparatus can determine which side of the disc is side A."). This limitation is not present in claim 1.

In sum, claim 1 does not require identifying the number of disc sides nor does it require that the identifying information have the purpose of providing information for the whole disc. We thus hold that the district court erred in its construction of both claim terms and in granting summary judgment of non-infringement.

#### CONCLUSION

The district court correctly granted summary judgment of non-infringement as to contributory infringement of the asserted claims of the '751 patent. However, the court erred in granting summary judgment of non-infringement as to induced infringement of the asserted claims of the '751 patent and in granting summary judgment of non-infringement of claim 1 of the '966 patent based on an erroneous claim construction. We therefore

*affirm-in-part, vacate-in-part, and remand* to the district court for further proceedings consistent with this opinion.

**AFFIRMED-IN-PART, VACATED-IN-PART, and  
REMANDED**

COSTS

Costs to Plaintiff-Appellant.

# United States Court of Appeals for the Federal Circuit

---

**TOSHIBA CORPORATION,**  
*Plaintiff-Appellant,*

v.

**IMATION CORP., MOSER BAER INDIA LTD.,  
GLYPHICS MEDIA, INC.,  
CMC MAGNETICS CORP., HOTAN CORP.,  
KHYPERMEDIA CORP.,  
RITEK CORP., AND ADVANCED MEDIA, INC.,**  
*Defendants-Appellees.*

---

2011-1204

---

Appeal from the United States District Court for the Western District of Wisconsin in case no. 09-CV-0305, Magistrate Judge Stephen L. Crocker.

---

DYK, *Circuit Judge*, concurring in part and dissenting in part.

Although I join the majority opinion on the issues of contributory and induced infringement with respect to the '751 patent, I respectfully dissent as to the claim construction and infringement analysis for claim 1 of the '966 patent.

Claim 1 of the '966 patent covers:

1. A recording medium comprising:

at least one recording plane, wherein each recording plane on which data is recorded includes:

a data region in which data is recorded; and  
a management region including *number-of-recording-planes identifying information* that represents the number of recording planes of the recording medium and *recording-plane identifying information* that uniquely identifies that recording plane.

'966 patent col.1 ll.21-29 (filed Sept. 5, 1996) (emphasis added). As I discuss below, the specification and the prosecution history of the '966 patent make clear that the central objective of the patent was to identify whether an optical disc was a one-sided disc or a two-sided disc. While claim 1 is broadly written so that it requires both a number-of-sides identifier and a number-of-layers per side identifier (i.e., whether the disc has one or two layers per side), the accused product here does not have a number of sides identifier and thus does not infringe.

First, repeated and consistent references to disc sides in the specification and the prosecution history clearly show that “number-of-recording-planes identifying information” requires the identification of disc sides.

When describing the shortcomings of the prior art, the specification stated that “conventional management information does not include information that distinguishes” between “single-sided discs” and “double-sided discs.” '966 patent col.1 ll.22-27. Improving upon the prior art, an “object of the present invention [wa]s to provide a recording medium and a reproducing apparatus thereof that determine the number of recording sides and

a recording surface thereof.” ’966 patent col.2 ll.11-14. “Thus, according to the present invention, different types of recording mediums that are for example single-sided type and double-sided type can be handled.” ’966 patent col.3 ll.1-3.

The embodiment illustrated in Figure 2 refers to a “number-of-disc-sides identifier” and a “disc side identifier.” ’966 patent fig.2. As shown in Figure 2, “[t]he number-of-disc-sides identifier 2 represents whether the disc is a double-sided disc or a single-sided disc.” ’966 patent col.6 ll.25-26. Figure 2 and its accompanying text are the only references in the specification for the terms “number-of-recording-planes identifying information” and “recording-plane identifying information,” and thus inform the meaning that an ordinary artisan would attach to those terms. There is no relevant embodiment in the specification that does not have a number-of-disc-sides identifier, nor any description of such an embodiment.

Any doubt left by the specification as to the proper construction of the disputed terms is resolved by the prosecution history. In addition to prior art rejections under 35 U.S.C. § 102, the examiner also rejected all pending claims under § 112 in the last office action prior to allowance. The examiner stated, among other things, that “[t]he specification as originally filed does not provide support for the limitation ‘each recording plane . . . number of recording plane . . . planes identifying information.’” J.A. 761 (second and third alterations in original). In response to the § 112 rejection, Toshiba showed support for the claimed “number-of-recording planes identifying information” by equating a “recording plane” to a “side of the disc”:

As illustrated in FIG. 2 and as described in the Specification . . . *a number-of-disc-sides identifier*

2 and a disc side identifier 3 . . . *must be provided on each side of the disc—i.e., each recording plane*—in order for the disc side identifier 3 to serve its purpose of identifying which side is being recorded/reproduced.

J.A. 761-62 (emphasis added). The examiner subsequently allowed the claims. In the reasons for allowance, the examiner stated that:

[N]one of the cited prior art shows . . . a disk having at least one recording plane . . . and a management region including the number of recording planes identifying the number of recording planes on the disk and a separate recording plane identifying information that uniquely identify that recording plane (such as side A or side B or upper surface or lower surface)

J.A. 756. Given the examiner's withdrawal of the § 112 rejection and the stated reasons for allowance, it is clear that the examiner viewed "number-of-recording-planes identifying information" as including both a number of sides identifier and a number of layers per side identifier. The majority suggests that the examiner's use of "or" in the parenthetical shows that identification of disc sides is not necessarily required. But Toshiba's representation is explicit that the number of recording planes identifying information must identify the number of sides and the number of layers on a side. The examiner's statement as to the recording plane identifying information does nothing to alter that meaning.

Given the repeated references in the specification to disc sides and the prosecution history, including the examiner's finding that the identification of recording planes "such as side A or side B or upper surface or lower surface" is what distinguishes the prior art, it is clear that

“number-of-recording-planes identifying information” requires the identification of the number of sides as well as the number of surfaces (i.e., layers) on each side. Thus, it is not sufficient that the “number-of-recording-planes identifying information” only identify the number of layers on a disc just because the disc happens to be a one-sided disc. Rather, the “number-of-recording-planes identifying information” has to identify whether the disc is a one-sided disc or a two-sided disc.

The principles of claim differentiation do not support a different result. The majority appears to suggest that, if a side identifier is required by claim 1, then claim 5 is adding something that is already within claim 1, and that the claims would then have the same scope. However, the majority fails to recognize that claim 5 narrows claim 1 by covering only embodiments with one layer per side. Here, claim 5 recites:

5. The recording medium as in claim 1, wherein:

the number-of-recording-planes identifying information indicates that the recording medium is one of a single-sided disc and a double-sided disc.

'966 patent col.16 ll.59-62. Whereas claim 1 can cover embodiments with any number of layers on a side, dependent claim 5 appears to cover only embodiments with one layer per side. In such embodiments, the identification of the number of sides necessarily identifies the number of recording planes on a disc. In any event, “the doctrine of claim differentiation does not allow unrestrained expansion of claims beyond the description of the invention in the specification, and explanations and representations made to the PTO in order to obtain allowance of the claims.” *Tandon Corp. v. U.S. Int'l Trade Comm'n*, 831 F.2d 1017, 1028 (Fed. Cir. 1987).

While I agree that appellees' argument in this case regarding the correct claim construction is confusing, this court is not bound by the parties' views of the proper claim construction. *Exxon Chem. Patents Inc. v. Lubrizol Corp.*, 64 F.3d 1553, 1556 (Fed. Cir. 1995). As described above, the specification and the prosecution history, as well as the language of claim 1 itself, clearly establish that claim 1 requires that an accused DVD be able to identify whether the DVD has one recording side or two recording sides.

For these reasons, I would affirm the district court's grant of summary judgment of non-infringement of the '966 patent.