Appeal No. 2016-2358

IN THE UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

MASSACHUSETTS INSTITUTE OF TECHNOLOGY,

Plaintiff - Appellee,

v.

MICRON TECHNOLOGY, INC., MICRON MEMORY JAPAN, INC.,

Defendants - Appellants.

APPLE INC., ELPIDA MEMORY, INC., ELPIDA MEMORY USA, INC.

Defendants.

Appeal from the United States District Court of Massachusetts
Case No. 15-10374-FDS

CORRECTED APPELLANTS' REPLY BRIEF

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CERTIFICATE OF INTEREST

Counsel for Appellants Micron Memory Japan, Inc. and Micron Technology, Inc. certifies as follows:

1. The full name of every party or amicus represented by us is:

   Micron Memory Japan, Inc. and Micron Technology, Inc.

2. The name of the real party in interest represented by us is:

   Micron Memory Japan, Inc.: None

   Micron Technology, Inc.: None

3. All parent corporations and any public companies that own 10 percent or more of the stock of the parties represented by us are:

   Micron Memory Japan, Inc.: Micron Technology, Inc.

   Micron Technology, Inc.: None

4. The names of all law firms and the partners or associates that appeared for the parties now represented by us in the trial court or are expected to appear in this Court are:

   DONNELLY, CONROY &GELHAAR, LLP: T. Christopher Donnelly, Brendan T. St. Amant; SHERMA & STERING LLP: Thomas R. Makin; KENYON & KENYON LLP: David J. Cooperberg, Rose Cordero Prey; WEIL, GOTSHAL & MANGES, LLP: Edward R. Reines

I.

INTRODUCTION

MIT does not deny that it abandoned a patent that it valued at over $140,000,000. For years it used that patent to pressure Micron and its predecessor Elpida for large settlement payments and, when that did not work, sought only token payments. Ultimately, MIT gave away its invalid patent, but left Micron with a big legal bill. MIT argues that this turn of events proves its good faith.

MIT's good-faith spin on this stunning sequence of events is only possible if it had a legitimate basis to believe its patent were valid. If, on the other hand, MIT's invalidity position is unreasonable, its abandonment of its patent can only be seen as the culmination of the bad faith enforcement of an invalid patent.

Thus, the start place for the exceptional case analysis must be whether, in fact, MIT's substantive legal position is reasonable. The District Court failed to conduct this critical analysis because it merely relied upon MIT's success in obtaining an ex parte reexamination certificate as a proxy for the reasonableness of its invalidity position.

Although this fundamental failure to consider the record first-hand is central to Micron's appeal, MIT overlooks it. MIT instead insists that this appeal is a micro-debate about fact finding. This misses the mark. The biggest problem with the District Court's analysis is that it never independently evaluated the record to determine that MIT's position was objectively unreasonable.

MIT's invalidity and infringement positions in this case were intolerably weak. As explained below, MIT's attempt on appeal to excuse them exposes just how weak those positions are. At a minimum, this Court should remand this case to the District Court so it can evaluate for itself the reasonableness of MIT's positions and to make findings based on such a review.

II.

ARGUMENT

A. The District Court Improperly *Assumed* That MIT Acted In Good Faith

In its opening brief, Micron established that the District Court uncritically accepted MIT's contention that it abandoned the patent-in-suit because of general PTAB win-loss statistics – rather than because its patent is indeed invalid. Appx2 ("Because the PTAB usually invalidates patents after instituting full IPR review, MIT requested the Court enter an adverse judgment."). The District Court did not even acknowledge the PTAB's extraordinary rejection of MIT's excuse that general statistics somehow justified the abandonment of its patent.

The District Court's improper presumption in favor of MIT is relevant to disposition of this appeal because it is important proof that the District Court generally presumed MIT's positions were correct without properly considering, and addressing, the evidence itself.

On appeal, MIT doubles down on its "statistical likelihood" excuse for abandoning its supposedly valuable patent, which MIT once valued at over $140,000,000. MIT Brief at 25, 34; Appx547. MIT continues to insist that it abandoned its prized patent purely because of the "75% adverse odds" before the PTAB and staunchly refuses to concede that the merits weighed into its consideration at all. *Id.* at 25 ("Given the 75% adverse odds, MIT decided to give up its patent.").

Entities such as MIT do not normally make major business decisions based on a tribunal's general statistical probabilities without reference to the merits of the case at hand. Indeed, it is implausible that MIT's legal team did not even consider the strength of the invalidity evidence against its patent in deciding to abandon that patent.

MIT's stubborn refusal to acknowledge that it considered the invalidity evidence facing its patent when it abandoned that patent is a red flag that something is wrong here. Likewise, the District Court's blind acceptance of MIT's implausible "statistical likelihood" excuse for abandoning its patent is reason to

review the District Court's exceptional case decision with skepticism.

B. The District Court Improperly *Presumed* That MIT's Invalidity Positions Were "Colorable" Without Analyzing The Facts

In footnote 2 of its appeal brief, MIT argues that Micron is merely quibbling with the District Court's factual findings, and that there is no allegation of true legal error presented. MIT Appeal Brief at 33 n.2 ("Micron's statement of the issues presented suggests that Micron raises 'legal errors.' (citation omitted). Not true. The § 285 inquiry is 'rooted in factual determinations'…."). MIT misperceives the appeal it faces.

As explained in Micron's opening brief, the District Court legally erred, among others things, because it improperly relied upon the outcome of MIT's ex parte reexamination as a proxy for whether MIT had an objectively reasonable basis to deny that its patent is invalid. Micron Opening Brief at15 ("the district court relied only on the decision in the reexamination proceeding as a proxy and did not perform its own analysis of the facts and the evidence"), 16 ("Mere reliance on the Patent Office reexamination certificate as a proxy is legal error."), 22-23 ("the district court erred by accepting the results of the ex parte reexamination as a proxy for whether MIT acted unfairly in defending the validity of its patent.").

This failure to consider the underlying record is legal error because the District Court is charged with considering the evidence itself. And the District Court must make findings adequate to allow appellate review to ensure that all

such circumstances were considered. *Superior Fireplace Co. v. Majestic Products Co.*, 270 F.3d 1358, 1377-1378 (Fed.Cir.2001) (vacating denial of exceptional case motion due to failure of District Court to make adequate findings and directing the district court to "make the necessary findings to allow our review. This should include a determination of what pre-filing preparation, if any, was done by Superior."); *see also Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed.Cir.1997) ("When the opinion explaining the decision lacks adequate fact findings, meaningful review is not possible, frustrating the very purpose of appellate review").

The findings necessary to permit appellate review are, naturally, case-specific. Here, whether MIT had a reasonable basis for denying the invalidity of its patent is at the heart of the matter, and it deserved specific findings beyond a pointer to a reexamination certificate.

For whatever reason, MIT decided not to engage on this issue beyond arguing that mini-trials are not required. Micron is not seeking a mini-trial. It is seeking a first-hand review of the record, rather than mere reliance on the ex parte reexamination.

MIT argues that the District Court considered the underlying record on the invalidity issue. MIT relies only on the following passage from the District Court's opinion to make this argument:

> There was certainly a colorable argument that the patent's increased fuse width and substantially lower thermal resistance were novel and non-obvious limitations over Koyou. Three expert patent examiners in the PTO's Central Reexamination Unit initially rejected MIT's arguments; however, upon closer examination of Bernstein's explanations, they concluded that the patent was valid.

Appx7.

This passage ***undermines*** MIT's position. It reinforces that the basis for the District Court's conclusion that MIT's invalidity position was reasonable is MIT's reliance on the issuance of a reexamination certificate. This is confirmed by the following paragraph of the opinion that explains at length that the District Court believes issuance of a reexamination certificate is per se inconsistent with an objectively unreasonable invalidity position. Appx7.

There is no evidence that the District Court ever considered whether MIT's position was objectively reasonable based on an examination of the merits, and certainly no findings were made that could be reviewed. Even if this Court were to conclude that it is inconclusive whether the District Court did so, a remand would be appropriate. *Ariosa Diagnostics v. Verinata Health, Inc.*, 805 F.3d 1359, 1366 (Fed.Cir.2015) (vacating and remanding because "we cannot confidently discern whether the Board, in its consideration of Exhibit 1010, was actually relying on a legally proper ground rather than the erroneous ground just noted.").

In any event, as the following section confirms, if the District Court had considered the record as it was obligated to do, it would have concluded that MIT was objectively unreasonable.

C. MIT's Attempt To Defend Its Invalidity Position Fails

MIT's attempt to defend its invalidity position is utterly meritless. This is straightforward to explain for each of its two unreasonable positions.

1. It Is Exceptional For MIT To Deny That The Koyou Cut-Link Is Wider Than The Connecting Lines

MIT continues to deny that Koyou anticipates the '221 Patent because it shows that its cut-link is wider than its connecting lines. This is the alleged primary inventive advance of the '221 Patent, yet it is plainly disclosed in the prior art.

The centerpiece of MIT's denial is its argument that the top view of Figure 1a of Koyou is not related to the Figure 3 side view. If they are related, the cut-link is unquestionably shown as much wider than the connecting lines.

As Micron explained, and the PTAB found, Koyou is replete with statements that Figure 1a is the plan view of Figure 3. When Figure 1a is introduced Koyou states it "is a plan view illustrating the configuration of the key elements (the fuse member and the wiring layer) in the present device." Appx538 at ¶ 9. After Figure 1 is introduced, Koyou states that preferred embodiments will be introduced. Thus, Figure 1 is not a preferred embodiment but a common figure

showing the key elements of the invention. Figure 2 shows the first embodiment, and Figure 3 shows the second embodiment.

In the discussion of Figure 3 itself, the patent states that the benefits of Figure 1 apply to the Figure 3 design: "In addition to the actions and effects set forth in relation to FIG. 1 (a) and (b), the configuration according to the second embodiment achieves the following advantages." Appx539 at ¶ 21.

Any possible remaining issue as to the relationship between Figures 1 and 3 is foreclosed by Claim 4 of Koyou, which flat out states that the side view connecting line elements of Figure 3 is used with the cut-link of Figure 1 by reference to the specific numerical elements of the figures. *See* Micron Opening Appeal Brief at 19. The PTAB recognized this without pause. Appx514-515.

In response, MIT makes two new meritless arguments that prove the exceptionality of this case. MIT contends that Claim 5 and Figure 1b somehow disprove the incontrovertible relationship between Figures 1 and 3. Each is addressed in turn.

(a) Claim 5 of Koyou Does Not Disprove That Figures 1 and 3 Are Related

It is beyond serious dispute that Figure 1 is the top view of the Figure 3 embodiment. And the Koyou claims state that. To try to create some debate, MIT attempts to throw sand in the gears with a new argument not even presented to the District Court.

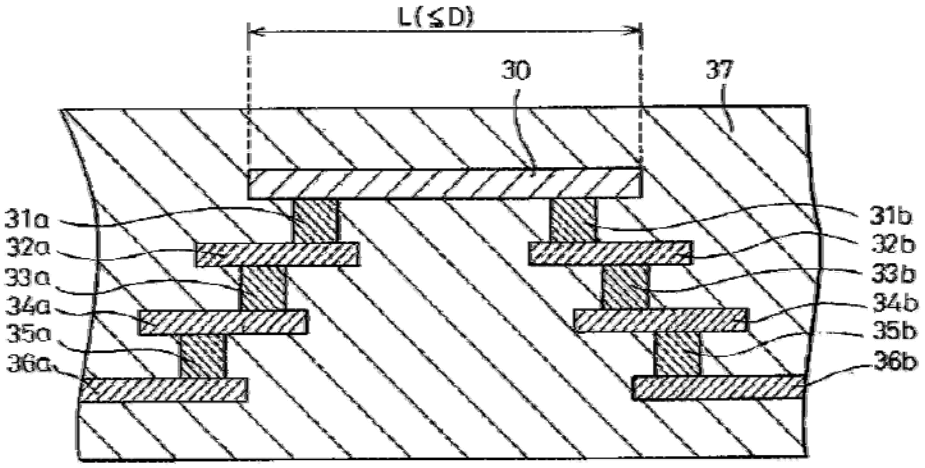
MIT argues that the Koyou claims cannot show the relationship between Figures 1 and 3 because applying that same logic to Figures 1 and 4 would lead to a nonsensical result. Specifically, MIT argues that if the claims tie together Figures 1 and 3 (which they obviously do), they must also tie together Figures 1 and 4 and that this is non-sensical.

As an initial matter, for all the reasons set forth in this brief and Micron's opening brief, nothing about Figure 4 can nullify the express relationship between Figures 1 and 3. Among other things, Claim 4 of Koyou states that the wide cut-link of Figure 1 is attached to the narrow connecting lines of Figure 3. That should be that.

MIT's argument based on Figure 4 is meritless in any event MIT contends that Figure 4 shows a side view of a multi-level fuse structure. MIT Appeal Brief at 42. MIT argues that this design is incompatible with the top view of Figure 1 because that figure only shows a single top layer fuse. *Id.* But this makes no sense. The top view of a stacked multi-level structure naturally shows the top layer

and not the layers below. MIT's argument is like stating that the top view of a sky scraper should show every floor, not just the top floor. Simply put, a top view of a structure properly depicts what is on top, not layers beneath that top.

The following is Figure 4. The top view of this structure naturally shows only the top layer (30), not every layer:



Appx540.

(b) Figure 1b Does Not Disprove That Figures 1 and 3 Are Related

MIT contends that Figure 1b is incompatible with Figure 3, proving that Figures 1 and 3 are not related.

MIT argues that Figure 1b shows that the narrow contacts (1b, 2b) are actually part of the fuse (1) because the cross-hatching of the contacts is the same as the fuse. If that is true, according to MIT, the lines are wider than the fuse because the otherwise wide fuse (1) includes the narrow contacts (1b, 2b).

However, a key aspect of Figure 3 is that it highlights, in this particular embodiment, that the contacts can be a different material than the fuse: "With a buried contact structure it is possible to select different material properties for the electrically conductive material that fills the contact holes than for the material properties of the fuse member (20)." Appx539 at ¶20. And even MIT does not deny that the contacts in Figure 3 are part of the connecting lines rather than the cut-link. MIT Appeal Brief at 19 (the "contact holes 21a and 21b in the Figure 3 embodiment could be considered as a separate electrically-conducive lines.")

There is no contradiction, even if such a contradiction could negate the express disclosure of a wide cut link with narrow connecting lines in Claim 4 of Koyou.

2. It Is Exceptional For MIT To Deny That The Koyou Cut-Link Has Substantially Less Thermal Resistance Per Unit Length Than Its Connecting Lines

To deny that Koyou's wide cut-link would have a substantially less thermal resistance per unit length than its connecting lines, MIT ignored two of the three materials disclosed by Koyou for the contacts that are undisputedly the claimed connecting lines. Specifically, MIT ignored that Koyou disclosed titanium and titanium nitride in addition to tungsten.

On appeal, MIT no longer ignores the titanium and titanium nitride materials disclosed for the contacts. Instead, MIT argues that a person skilled in the art would not select titanium or titanium nitride materials because they supposedly would not work well. As the PTAB explained, such an argument does not negate the express disclosure of titanium and titanium nitride for this particular role. Appx511 ("We are not persuaded by this argument because Koyou explicitly discloses the use of these materials.") and ("the claims do not require any particular degree of electrical conductivity, and Patent Owner admits that these materials have 'low electrical conductivity.")

Because the claims of the '221 Patent tout a connecting line with substantially more resistance than the cut-link, using a material with more resistance such as titanium or titanium nitride makes perfect sense and underlines

that this claim requirement is satisfied by this teaching of Koyou. MIT's failure to acknowledge expressly disclosed materials is exceptional.

D. MIT's Appeal Positions Highlight Why The District Court's Reliance On The Ex Parte Reexamination Certificate Was Improper

MIT only obtained a reexamination certificate for its now-abandoned patent by unfairly presenting the issues to the Patent Office. MIT's poor arguments on appeal highlight this.

The District Court rejected Micron's argument that the ex parte reexamination was unreliable due to MIT's unfair presentation of the issues. The District Court did so because it found that Micron's technical expert did not allege that MIT misled the Patent Office. Appx8. This finding is clearly erroneous and undefended by MIT.

As demonstrated in Micron's opening appeal brief at 25 and 26, Micron's technical expert identified the fundamental problems in MIT's reexamination submission and identified them as "improper" and "erroneous." MIT does not deny that Micron's technical expert alleged impropriety in MIT's reexamination presentation and, as mentioned above, wholly fails to defend the District Court's finding of fact on this point. MIT Appeal Brief at 54 n. 5.

And the allegation of impropriety is well-founded. MIT was able to persuade the Patent Office that Koyou does not disclose a cut-link that is wider than its connecting lines only by denying that Figure 1 corresponds to Figure 3. As explained above, Koyou's Claim 4 expressly ties them together.

MIT, on appeal, does not meaningfully deny that, if Figures 1 and 3 correspond, the wide cut link claim requirement is satisfied. MIT mildly resubmits its strained argument that patent drawings cannot show dimensions, and thus it contends that there is a "reasonable argument" that Koyou's drawings do not show a 10% difference in width. But the drawings show the cut-link is almost twice as wide as the connecting lines; this is hardly a fine distinction where drawings might be unreliable. MIT Appeal Brief at 44. And MIT does not deny that its own expert relied upon the dimensions of the drawings. This highlights the materiality of MIT's unfair presentation of the issues to the Patent Office.

Regarding the substantial less thermal resistance claim requirement, MIT does not seriously deny that, when titanium and titanium nitride are used as contact materials, this claim requirement would be satisfied. MIT's excuse for failing to acknowledge those materials were expressly disclosed by Koyou is that they would not be good materials to use. That is hardly a valid justification for ignoring expressly disclosed materials.

In sum, MIT's excuses for its unfair presentation during the reexamination proceedings highlight why it was improper for the District Court to place so much weight on the outcome of those proceedings.

E. The District Court Improperly Concluded MIT's Infringement Position Was Not Objectively Unreasonable

On appeal, MIT continues with its meritless argument that a sensible reading of the claim requirement "on a substrate" would be a construction "that is consistent with 'into a substrate.'" This is upside down. A line that is embedded in the substrate is not "on" the substrate. This is the type of unreasonable infringement position that this Court has identified as intolerable. *Raylon v. Complus Data Innovations, Inc.*, 700 F.3d 1361, 1369 (Fed.Cir.2012) (finding the plaintiff's proposed claim construction to be unsupported by the record and so frivolous as to warrant sanctions).

To defend its position, MIT makes two arguments. First, MIT argues that the separate claim requirement that the lines extend into the substrate from the surface of the substrate somehow negates the requirement that the line is in the substrate in the first place. Second, MIT argues the presence of an alternative embodiment justifies its proffered construction. Neither argument is reasonable.

MIT agrees that the claims require that "the first and second lines bonded to the pad on the substrate." MIT Appeal Brief at 8. To argue that "on the substrate" includes "in the substrate," MIT places most of its weight on a separate

requirement of the claims stating that, after the lines connect to the cut-link on the surface of the substrate, they extend into the substrate. MIT Appeal Brief at 57-59.

This argument makes no sense. If the lines merely had to extend into the substrate and did not need to be "on a substrate," there would have been no need for the separate "on a substrate" requirement. Moreover, there is no inconsistency at all in requiring the lines to connect to the cut-link on the substrate and also to require that they extend into the substrate.

MIT's reliance on an alternative embodiment is also unavailing. Often claims do not cover all embodiments. *See AllVoice Computing PLC v. Nuance Commc'ns, Inc.*, 504 F.3d 1236, 1248 (Fed.Cir.2007) ("[E]very claim need not contain every feature taught in the specification."); *Nazomi Commc'ns, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed.Cir.2005) (holding that a claim may "embrac[e] different subject matter than is illustrated in the specific embodiments in the specification"); *Golight, Inc. v. Wal-Mart Stores, Inc.*, 355 F.3d 1327, 1331 (Fed.Cir.2004) ("[P]atentees [are] not required to include within each of their claims all of [the] advantages or features described as significant or important in the written description."). Claims do not need to be construed to cover every embodiment if that would do violence to the claim language itself.

III.

CONCLUSION

For the foregoing reasons, the Court should find that the district court's denial of Micron's motion for attorneys' fees and costs was legally erroneous and should be reversed.

Respecfully submitted,

Dated: January 11, 2017

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CERTIFICATE OF COMPLIANCE

The undersigned certifies that this brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B). This brief contains 3,379 words as calculated by the "Word Count" feature of Microsoft Word 2010, the word processing program used to create it.

The undersigned further certifies that this brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6). This brief has been prepared in a proportionally spaced typeface using Microsoft Word 2010 in Times New Roman 14 point font.

Dated: January 11, 2017

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CERTIFICATE OF SERVICE

I hereby certify that on January 12, 2017, I filed or caused to be filed copies of the foregoing with the Clerk of the United States Court of Appeals for the Federal Circuit via the CM/ECF system and served or caused to be served a copy on all counsel of record by the CM/ECF system.

Dated: January 12, 2017

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