

United States Court of Appeals for the Federal Circuit

**HYNIX SEMICONDUCTOR INC., HYNIX
SEMICONDUCTOR AMERICA INC., HYNIX
SEMICONDUCTOR U.K. LTD.; AND HYNIX
SEMICONDUCTOR DEUTSCHLAND GMBH,**
Plaintiffs-Appellants,

v.

RAMBUS INC.,
Defendant-Cross Appellant.

2009-1299, -1347

Appeal from the United States District Court for the
Northern District of California in Case No. 00-CV-20905,
Senior Judge Ronald M. Whyte.

Decided: May 13, 2011

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Before NEWMAN, LOURIE, BRYSON, GAJARSA and LINN,
Circuit Judges.

Opinion for the court filed by *Circuit Judge* LINN, with whom LOURIE and BRYSON, *Circuit Judges*, join.

Concurring-in-part, dissenting-in-part opinion filed by *Circuit Judge* GAJARSA, with whom NEWMAN, *Circuit Judge*, joins.

LINN, *Circuit Judge.*

This patent infringement action concerns Synchronous Dynamic Random Access Memory (“SDRAM”) and Double Data Rate SDRAM memory (“DDR SDRAM”), in

standard use in many computers beginning in the 1990s. The district court entered a final judgment of infringement and non-invalidity of claim 33 of Rambus Inc.'s ("Rambus") U.S. Patent No. 6,324,120 ("120 patent"); claims 32 and 36 of U.S. Patent No. 6,378,020 ("020 patent"); claims 9, 28, and 40 of U.S. Patent No. 6,426,916 ("916 patent"); claim 16 of U.S. Patent No. 6,452,863 ("863 patent"); claim 34 of U.S. Patent No. 5,915,105 ("105 patent"); and claims 24 and 33 of U.S. Patent No. 6,034,918 ("918 patent"); entered judgment in the amount of \$349,035,842; required Hynix to pay prejudgment interest; and set a royalty rate for infringing products. *Hynix Semiconductor, Inc. v. Rambus Inc.*, No. 00-CV-20905 (N.D. Cal. Mar. 10, 2009) ("*Judgment*"). Hynix Semiconductor Inc., Hynix Semiconductor America Inc., Hynix Semiconductor U.K. LTD, and Hynix Semiconductor Deutschland (collectively, "Hynix") appeal the district court's: (1) denial of Hynix's motion to dismiss due to unenforceability arising from Rambus's alleged spoliation of documents, *Hynix Semiconductor Inc. v. Rambus Inc.*, 591 F. Supp. 2d 1038 (N.D. Cal. 2006) (Whyte, J.) ("*Spoliation*"); (2) claim construction, *Hynix Semiconductor Inc. v. Rambus Inc.*, No. 00-CV-20905 (N.D. Cal. Nov. 15, 2004) ("*Claim Construction*"); (3) denial of Hynix's motion for judgment as a matter of law or for a new trial on the basis of written description, *Hynix Semiconductor Inc. v. Rambus Inc.*, No. 00-CV-20905 (N.D. Cal. Jan. 27, 2009) ("*Written Description*"); (4) denial of Hynix's motion for a new trial on obviousness, *Hynix Semiconductor Inc. v. Rambus Inc.*, No. 00-CV-20905 (N.D. Cal. Jan. 16, 2009) ("*Obviousness*"); and (5) rejection of Hynix's equitable arguments of unenforceability due to implied waiver and equitable estoppel. *Hynix Semiconductor Inc. v. Rambus Inc.*, No. 00-CV-20905 (N.D. Cal. Mar. 3, 2009) ("*Estoppel*").

Rambus cross-appeals the district court's grant of summary judgment of non-infringement of claims of 15, 18, 25, and 26 of Rambus's U.S. Patent No. 6,032,214 ("214 patent"); claims 36 and 40 of the '105 patent; claims 1 and 4 of Rambus's U.S. Patent No. 6,035,365 ("365 patent"); and claim 14 of its U.S. Patent No. 6,101,152 ("152 patent"). *Hynix Semiconductor Inc. v. Rambus Inc.*, No. 00-CV-20905 (N.D. Cal. Jan. 5, 2005) ("Cross-Appeal").

This court has jurisdiction over the appeal and the cross-appeal pursuant to 28 U.S.C. § 1295(a)(1).

This case is a companion case to *Micron Technology, Inc. v. Rambus Inc.*, No. 2009-1263, slip op. (Fed. Cir. May 13, 2011) ("*Micron II*") (decided contemporaneously herewith). That case is an appeal from the United States District Court for the District of Delaware, in which Judge Robinson held that Rambus had spoliated documents in dereliction of a duty to preserve, and held Rambus's patents unenforceable as a sanction. *See Micron Tech., Inc. v. Rambus Inc.*, 255 F.R.D. 135, 150-51 (D. Del. 2009) ("*Micron I*").

Because this court concludes that the district court applied too narrow a standard of foreseeability in determining that litigation was not reasonably foreseeable until late 1999, this court (1) vacates the district court's final judgment and its findings of fact and conclusions of law regarding spoliation and remands for the district court to determine when Rambus's duty to preserve documents began under the framework set forth in *Micron II*, and the appropriate sanction, if any. This court (2) affirms the district court's decision on waiver and equitable estoppel, (3) its claim construction order, (4) its order denying Hynix's motion for JMOL or for a new trial on the basis of written description, and (5) its order deny-

ing Hynix's motion for a new trial on the basis of obviousness. This court also (6) affirms the district court's order granting Hynix's motion for summary judgment of non-infringement under Hynix's proposed claim construction challenged in Rambus's cross-appeal.

I. BACKGROUND

A. Rambus

Rambus was founded in 1990 to commercialize inventions related to features of computer dynamic random access memory ("DRAM"). All of the patents in suit claim priority to Rambus's 07/510,898 application ("898 application"), filed on April 18, 1990. The first filed and issued of the patents in suit, the '105 patent, was filed on November 26, 1997, and issued on June 22, 1999. Rambus prosecuted the patents in suit continuously throughout the 1990s and until 2002.

Rambus's primary business is licensing its intellectual property to DRAM manufacturers. Initially, Rambus focused its efforts on the "Direct RDRAM ramp," which comprised granting narrow licenses to RAM manufacturers to produce only a particular type of DRAM known as Rambus DRAM ("RDRAM") and later Direct RDRAM, and restricting the use of Rambus's intellectual property for the production of other types of RAM (what Rambus terms "non-compatible" uses). Rambus achieved a measure of success through this practice, licensing RDRAM production by Samsung, Hynix (then Hyundai), Hitachi, Micron, and several of the largest RAM manufacturers to meet the demand created by Intel's use of RDRAM in its Pentium 4 chipset. During the licensing period, however, several of the manufacturers also produced non-compatible DRAM, including SDRAM and DDR SDRAM, which are at issue in this case. As discussed in further

detail in *Micron II*, Intel eventually began to move away from RDRAM, in favor of SDRAM and DDR SDRAM.

B. Joint Electron Devices Engineering Council

Beginning in February 1992, Rambus became a member of the Joint Electron Devices Engineering Council (“JEDEC”), an open standard setting organization that developed (and continues to develop) standards for semiconductor products, including computer memory interfaces, to facilitate the interchangeability of products produced by different manufacturers. Members of a JEDEC committee meet several times a year to hear presentations by other members on proposed features to be included in the standard. The members then vote for which features to include.

Rambus was represented at JEDEC by Richard Crisp. After Crisp heard presentations on features to be included in the standard at JEDEC, he would discuss the inventions with the attorneys prosecuting Rambus’s patents, signaling them to direct Rambus’s prosecution efforts to cover those features. JEDEC Trial Tr. vol. 5 day 5, 990, 993. *See also* Reply Br. of Rambus, Inc., *Rambus Inc. v. Infineon Techs. AG*, 318 F.3d 1081, 1085 (Fed. Cir. 2003) (“*Infineon*”), at 62 (“Rambus changed its pending patent claims based on discussions at public JEDEC meetings.”).

Under JEDEC policies, the members agreed to participate “in good faith under policies and procedures which will assure fairness and unrestricted participation.” Joel Karp, Rambus’s Vice President for Intellectual Property, made no secret of the fact that he did not attend JEDEC in good faith, if “good faith means that you are attending JEDEC with the goal of creating an open standard for JEDEC SDRAM.” Several JEDEC rules governed the behavior of members, including Manual 21-I, discussed below. *Estoppel* at *15. As of 1993, JEDEC

policy “required members to disclose patents and patent applications ‘related to’ the standardization work of the committees.” *Infineon*, 318 F.3d at 1085. Crisp disclosed one patent, U.S. Patent No. 5,243,703 (“703 patent”) to JEDEC in September 1993. *Id.* This patent has a substantially similar specification to the patents in suit, differing only in the claims.

During Rambus’s membership, JEDEC adopted SDRAM as a standard. The SDRAM standard incorporated features such as programmable CAS latency, programmable burst length, externally supplied reference voltage, and two-bank design. *Id.* In December 1995, Rambus attended its last meeting as a member of JEDEC, and formally resigned in June 1996. Meanwhile, by December 1996, JEDEC was busy working on the successor to SDRAM, DDR SDRAM. *Id.* DDR SDRAM incorporated source-synchronous clocking, low-voltage swing signaling, dual clock edging, and on-chip delay locked loop. *Id.* After Rambus’s formal resignation, Crisp continued to receive reports from sources termed “deep throat” and “secret squirrel” regarding the progress of the JEDEC RAM committee through at least December 1997.

C. Document Retention Policy

As both parties agree, the facts underlying Rambus’s alleged spoliation are substantially identical in the two cases. Br. of Rambus at 21, *Micron II*, (noting that the facts in *Hynix* and *Micron* are “virtually the same”); Br. of Hynix at 21, *Hynix Semiconductor Inc. v. Rambus Inc.*, Nos. 2009-1299, -1347 (Fed. Cir. decided May 13, 2011). *See also Spoliation* at 1 (“[T]he district court in Delaware

held a bench trial with respect to an essentially identical claim by Micron that Rambus spoliated evidence.”¹

Rambus took its first steps towards enforcing its IP against non-compatible DRAM in October 1997, when it hired Joel Karp as its Vice President for Intellectual Property. Karp’s role was “to prepare and then to negotiate to license our patents for infringing [DRAMs].” *Spoliation* at 6. Rambus recognized that hiring Karp would make partners and competitors suspicious about its intellectual property plans, but it hoped “to downplay the whole infringement/IP issue until there is actual infringement,” by having their “spin control ready” to tell its partners and competitors that Karp was being hired to assist with “contract negotiations.”

Shortly thereafter, in January 1998, Geoff Tate, Rambus’s CEO, instructed Karp to prepare a licensing and litigation strategy for presentation to the Board at its March 1998 meeting. Karp enlisted Dan Leal, a Cooley Godward litigation attorney, to prepare a “litigation strategy by [the] March [1998] board meeting.” Cooley’s notes of a follow-up February 12, 1998 meeting between Karp, Leal, Dan Johnson (another Cooley litigator), and yet another Cooley attorney state that Rambus will “[n]eed to litigate against someone to establish [a] royalty rate and have [a] court declare [the] patent valid,” and noted that the royalty rates proposed by Karp would “probably push us into litigation quickly.” Finally, the

¹ In *Micron II*, Rambus argued that the differences in the records are “makeweight,” “cumulative,” and “insignificant,” and *not* sufficient to compel a different outcome on spoliation in response to Micron’s arguments to the contrary. Reply Br. of Rambus at 2-3, *Micron II*. Thus, to the extent the records are in fact different, Rambus has waived any argument that the different records justify different outcomes.

notes reference a proposal to create a document retention policy in order to “[m]ake ourselves battle ready,” and the need to “clean out all attorney notes so that [the PTO prosecution] file is same as official file.”

At the March 1998 presentation to the Board, Karp proposed a litigation strategy prioritizing his choices of defendants and forums, and set a timeframe wherein Rambus would “commence legal action” in 4-6 months after procuring the potentially infringing parts. He also proposed a five percent royalty rate for non-compatible RAM, a rate his later memo said was for situations where Rambus was “not interested in settling.” Finally, he set as “near term actions” the creation of a document retention policy and “discovery database.”

In April 1998, CEO Tate met with Intel, a meeting he summarized as follows: “[I]ntel says they are basically going to compete with us on [the] next generation [of DRAM].” He understood that such a shift in the “mid-term” from RDRAM to SDRAM could “force [Rambus] to play [its] IP card with the [DRAM] companies *earlier*.” (emphasis added). Karp announced the document retention policy in May 1998, noting that he would prefer not to discuss the policy in writing. In July 1998, Tate e-mailed Karp that Hyundai would be “a great company to start [Karp’s] plan with in q1/99 potentially.” The district court determined that the said “plan” was a licensing agreement with Hyundai. Also in July 1998, Karp made presentations on the document retention policy to engineers, where he told them to “LOOK FOR THINGS TO KEEP,” including documents that could potentially help establish a conception date.

In September 1998, Rambus held its first “Shred Day,” destroying 400 boxes of documents pursuant to Karp’s document retention policy.

In October 1998, Karp advised Rambus executives to delay litigation, saying that there was no “rush” to sue “until” the Direct RDRAM ramp reached the point of no return, likely in the first quarter of 2000. Karp advised Rambus to stay in “stealth mode,” and not to “ROCK THE DIRECT BOAT.” Moreover, he noted that the direct infringement case against Mosel and Nanya, two RAM manufacturers, “could be ready to go in Q1 ’99.” In November 1998, Karp sent Rambus executives the “Nuclear Winter Memorandum,” which detailed a course of action in the “very unlikely” event that Intel cancelled RDRAM in its next generation chipset in favor of SDRAM. That memorandum identified litigation targets, time frames, and causes of action for infringement. It noted that Rambus had already made claim charts detailing infringement by Micron’s non-compatible RAM products.

The first patent in suit, the ’105 patent, issued in June 1999. Within two days, CEO Tate instructed Karp to identify and justify his choice for the first licensing or litigation target, and to set out what Rambus’s “strategy [would be] for the battle with the first target that we will launch in [O]ctober [1999].” Karp’s goals for the third quarter of 1999 thereafter included: “prepare litigation strategy against 1 of the 3 manufacturers,” and “be ready for litigation with 30 days notice.” In July 1999, Attorney Johnson prepared duration and timing charts for litigation in the Northern District of California and the Eastern District of Virginia, with October 1, 1999 as the prospective filing date.

Thereafter, on August 26, 1999, Rambus held its second “Shred Day,” destroying 300 additional boxes pursuant to its document retention policy. Through all the Shred Days, Rambus kept no record of what was destroyed, but admitted that some destroyed documents related to contract and licensing negotiations, patent

prosecution, JEDEC participation, Board meetings, and Rambus finances.

On September 24, 1999, Karp made a presentation to the Rambus board entitled, “IS THERE LIFE AT RAMBUS AFTER INTEL?” The district court determined that this presentation, postdating the two shred days, “reflects the turning point in Rambus’s litigation intentions” when Rambus “appear[ed] to be ready to seriously consider actually filing suit against someone.” *Spoliation*, 591 F. Supp. 2d at 1063, 1064. During that presentation, Karp told the board that Rambus “must increase the industry’s perception of [its] value through aggressive assertion of IP rights [i]f Rambus is to have a future.” He noted that certain “[c]ompanies like Micron will fight us tooth and nail and will never settle,” and touted the desirability of litigation, noting that the “[b]est route to IP credibility is through victory over a major DRAM manufacturer.” Within a week, CEO Tate sent an e-mail recognizing the consensus that Rambus “need[ed] to sue a [DRAM] company to set an example.”

On October 22, 1999, Karp sent Hitachi a letter referencing its patents, and sued Hitachi on January 18, 2000.

D. Micron

In 2000, Micron Technology, Inc. filed a declaratory judgment action against Rambus in the District of Delaware (Robinson, J.). There, the district court determined that Rambus had spoliated documents in contravention of a duty to preserve because litigation was reasonably foreseeable prior to Rambus’s second shred day, and held the patents unenforceable. *See Micron I*, 255 F.R.D. at 151. This court has now affirmed the district court’s determination of spoliation. *Micron II*, slip. op. at *24.

II. DISCUSSION

A. Spoliation

“[S]poliation refers to the destruction or material alteration of evidence or to the failure to preserve property for another’s use as evidence in pending or reasonably foreseeable litigation.” *Id.* at *12 (citing *Silvestri v. Gen. Motors Corp.*, 271 F.3d 583, 590 (4th Cir. 2001)). Most relevant in this case is the point when the duty to preserve evidence begins. This determination is informed by a number of policy considerations, including “the need to preserve the integrity of the judicial process in order to retain confidence that the process works to uncover the truth,” *Silvestri*, 271 F.3d at 590, and must balance the reality that “litigation is an ever-present possibility in American life,” *Nat’l Union Fire Ins. Co. of Pittsburgh, PA v. Murray Sheet Metal Co.*, 967 F.2d 980, 984 (4th Cir. 1992), with the legitimate business interest of eliminating unnecessary documents and data.

Both parties agree that in balancing the competing interests relevant to the preservation and destruction of documents and data, the reasonable foreseeability standard described in *Silvestri* is the proper standard. The parties disagree, however, about what that standard means. Hynix argues that reasonable foreseeability incorporates no requirement of imminence of litigation, while Rambus argues that “to be reasonably foreseeable, litigation must be ‘imminent,’ at least in the sense that it is probable and free of significant contingencies.” Br. of Rambus at 65.

The district court here determined that litigation did not become reasonably foreseeable until late 1999, before which “the path to litigation was neither clear nor immediate” and was subject to “several contingencies [that] had to occur before Rambus would engage in litigation.”

Spoilation, 591 F. Supp. 2d at 1062. These contingencies included: locking-in of the manufacturers to the RDRAM standard, issuance of Rambus's patents covering non-compatible devices, availability and reverse-engineering of the accused's product samples to create claim charts, approval for litigation from Rambus's board to commence licensing negotiations with the manufacturers, and the manufacturer's rejection of Rambus's licensing terms. *Id.* According to the district court, the "turning point in Rambus's litigation intentions" was Karp's IP Strategy Update of September 24, 1999, which "clearly states that Rambus's intellectual property in its patents must be substantiated either by settlement with 'an industry powerhouse' or 'winning court,' and acknowledges that some manufacturers will never settle." *Id.* at 1063. Because the second shred day preceded the IP Strategy Update, the district court determined that Rambus's destruction of documents was "a permissible business decision." *Id.* at 1064.

This court reviews the district court's spoliation decision under the law of the regional circuit as follows: de novo for the legal standard, clear error for the underlying facts, and abuse of discretion for the propriety of the remedy. *See Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1019 (Fed. Cir. 2008).

In *Micron II*, this court held that that standard does not carry a gloss requiring that litigation be "imminent, or probable without significant contingencies." *Micron II*, slip. op. at *12-14. The district court here applied just such a standard. This is evident for three reasons.

First, the district court's discussion of the contingencies did not consider the likelihood that those contingencies would be resolved. Instead, the district court determined that litigation was not reasonably foreseeable

merely because some contingencies were present, which made litigation “neither clear nor immediate.” *Id.* at 1062. Notwithstanding the conclusion of no reasonable foreseeability, the record shows that the district court implicitly recognized that the resolution of each contingency *was* reasonably foreseeable:

- “One of the basic assumptions [of the February 23, 1998 Cooley presentation] was that Rambus would not initiate action *until* a competing product enters the market.” *Id.* at 1047 (emphasis added).
- “Rambus initially planned to begin its licensing strategy *only at the time* the DRAM manufacturers were locked in to RDRAM production. By October 1998, *the projected time frame for this was early 2000.*” (citing Karp’s statement that “[w]e should not assert patents against Direct partners *until* ramp reaches a point of no return”). *Id.* at 1048 (emphases added).
- “[S]everal contingencies had to occur *before* Rambus *would* engage in litigation.” *Id.* at 1062 (emphases added).
- “*Once* customer samples *were* available in the market, Rambus *planned to engage* in reverse engineering to produce claim charts for us in its license negotiations.” *Id.* at 1063 (emphases added).
- “Rambus did not actually intend to initiate licensing negotiations for non-compatible users *until* certain contingencies occurred, which did not happen until 1999.” *Id.* (emphasis added).

Though the district court understood that these contingencies were reasonably foreseeable, it nevertheless

determined that the litigation itself was not. This reflects a mistaken view of the importance of these contingencies in determining the foreseeability of litigation. Contingencies whose resolutions are reasonably foreseeable do not foreclose a conclusion that litigation is reasonably foreseeable. *See Micron II*, slip. op. at *20-22. It would be inequitable to allow a party to destroy documents it expects will be relevant in an expected future litigation, solely because contingencies exist, where the party destroying documents fully expects those contingencies to be resolved. *Cf. United States v. Kitsap Physicians Serv.*, 314 F.3d 995, 1001 (9th Cir. 2002) (“Defendants engage in spoliation of documents as a matter of law only if they had some notice that the documents were potentially relevant to the litigation before they were destroyed.” (internal citations omitted)).

Second, in addition to the contingencies, the district court found evidence of non-foreseeability of litigation because: (1) Rambus had not received Board approval for licensing negotiations or litigation against DRAM manufacturers as of August 1999, and (2) “Rambus had not budgeted for litigation” by June 1999. *Hynix*, 591 F. Supp. 2d at 1063. While these facts may show that litigation was not imminent, they do not demonstrate that it was not reasonably foreseeable. Indeed, there is no evidence in the record that these facts changed as of January 2000, when Rambus in fact sued Hitachi.

Finally, the district court here was the only court to determine that the duty to preserve documents did not begin until after Rambus’s second shred day, which suggests the application of a too-strict standard of foreseeability. *See Micron I*, 255 F.R.D. 135 (D. Del. 2009); *Rambus Inc. v. Infineon Tech. AG*, 155 F. Supp. 2d 668, 682 (E.D. Va. 2001), *vacated-in-part, reversed-in-part, affirmed-in-part*, and *remanded* by 318 F.3d 1081 (Fed.

Cir. 2003); *Samsung Elecs. Co. v. Rambus Inc.*, 439 F. Supp. 2d 524 (E.D. Va. 2006), *vacated as moot and remanded* by 523 F.3d 1374 (Fed. Cir. 2008).

The narrow standard applied by the district court in this case vitiates the reasonable foreseeability test, and gives free reign to destroy documents to the party with the most control over, and potentially the most to gain from, their destruction. This fails to protect opposing parties' and the courts' interests in uncovering potentially damaging documents, and undermines the level evidentiary playing field created by discovery that lies at the heart of our adversarial system. *See Vodusek v. Bayliner Marine Corp.*, 71 F.3d 148, 156 (4th Cir. 1995).

Applying the correct standard of reasonable foreseeability, without the immediacy gloss, these considerations compel a finding that litigation was reasonably foreseeable prior to Rambus's Second Shred Day. Moreover, as noted above, Rambus has agreed that whatever differences the facts present, the two cases should not be decided differently.

This court thus concludes that the district court erred in applying too narrow a standard of reasonable foreseeability as requiring that litigation be immediate or certain, which was legal error. This court vacates the district court Findings of Fact and Conclusions of Law in connection with the rejection of Hynix's motion to dismiss on the basis of spoliation, and remand for further proceedings consistent with this opinion and the framework of reasonable foreseeability set forth in our companion *Micron* case.²

² This court does not decide whether *Micron II* decision should be given any preclusive effect, the correctness of Judge Whyte's determinations on prejudice and good faith, or the propriety of any particular sanction

B. Piercing of the Attorney-Client Privilege

During discovery, the district court pierced Rambus's attorney-client privilege on the basis of the crime-fraud exception, relying on California Penal Code § 135, which prohibits destruction of documents "about to be produced in evidence." On appeal, Rambus argues that if this court vacates the district court's spoliation decision, it should also vacate the piercing of the attorney-client privilege because Rambus's conduct was not within the scope of California Penal Code § 135, because the delay between Rambus's destruction of documents and its filing suit undermined the "temporal closeness" necessary for a violation of § 135, based on *People v. Prysock*, 180 Cal. Rptr. 15, 31 (Ct. App. 1982). This court rejects Rambus's argument.

As discussed in *Micron II*, this case is distinguishable from *Prysock*, because there "the defendant controlled the timing of the destruction of relevant evidence, while law enforcement, acting independently, controlled the timing of the initiation of the investigation that would trigger the application of § 135," whereas here, "Rambus controlled the timing of both events." *Micron II*, slip. op. at *33. Under a reasonable reading of § 135, Rambus's destruction of documents in preparation of its suit against the DRAM manufacturers could reasonably constitute a crime, and this court finds no error in the district court's determination that the crime-fraud exception to the attorney-client privilege applies. *See id.* at *33-34.

C. Other Defenses

Although this court remands to the district court to address the spoliation issue, in the event the district court

on this record. Those questions all remain for consideration by the district court on remand.

determines that Rambus did not spoliage documents, and/or that Rambus's patents are not unenforceable, this court considers the waiver and estoppel, claim construction, written description, and obviousness issues raised by Hynix.

i. Waiver and Estoppel

A member of an open standard setting organization may be equitably estopped or may have impliedly waived its right to assert infringement claims against standard-compliant products. *Qualcomm*, 548 F.3d at 1022-24 (noting that either waiver or equitable estoppel may properly be asserted in this context). *See also A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1028 (Fed. Cir. 1992) (en banc) ("*Aukerman*") (holding that equitable estoppel is a cognizable defense against patent infringement).

To support a finding of implied waiver in the standard setting organization context, the accused must show by clear and convincing evidence that "[the patentee's] conduct was so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished." *See Qualcomm*, 548 F.3d at 1020 (citing with approval district court's advisory jury instruction). Such conduct can be shown where (1) the patentee had a duty of disclosure to the standard setting organization, and (2) the patentee breached that duty. *See id.* at 1011-12.

To support a finding of equitable estoppel, the accused must show that "[t]he patentee, through misleading conduct, led the alleged infringer to reasonably infer that the patentee does not intend to enforce its patent against the alleged infringer." *Aukerman*, 960 F.2d at 1028. "Conduct' may include specific statements, action, inac-

tion, or silence where there was an obligation to speak.”
Id.

The two elements of implied waiver must also be shown to prove equitable estoppel, because without a disclosure duty, Hynix could not “reasonably infer” that Rambus did not intend to enforce its patents against it, and without a breach of that duty, Rambus’s non-disclosure could not be “misleading conduct.” This opinion thus discusses the applicability of both doctrines together.

The district court relied on a jury determination that “JEDEC members did not share a clearly defined expectation that members would disclose relevant knowledge they had about patent applications or the intent to file patent applications on technology being considered for adoption as a JEDEC standard,” *Estoppel* at *50, and that prior to Rambus’s withdrawal from JEDEC, none of its pending patent applications covered a JEDEC standard, *id.* at *51 (“The patent[s]-at-issue in this case had not even been applied for during Rambus’s membership in JEDEC.”).

In *Infineon*, this court held that participation in JEDEC imposed a duty to disclose pending applications and issued patents “with claims that a competitor or other JEDEC member reasonably would construe to cover the standardized technology.” 318 F.3d at 1100. This court noted that “this does not require a formal infringement analysis,” *id.*, but applies “when a reasonable competitor would not expect to practice the standard without a license under the undisclosed claims,” *id.* at 1101. The determination that there was a duty—and the categorization of its scope as extending to all pending or issued claims that were reasonably necessary to practice the standard—is dispositive in this case and should never

have been submitted to the jury. However, because this court determines that *Infineon*'s holding that Rambus did not breach the duty of disclosure applies here as well, *see infra*, submitting the issue to the jury was harmless error.

While Rambus was still a member of JEDEC, it disclosed to JEDEC its '703 patent, a member of the '898 patent family with the same written description as the patents in suit. In *Infineon*, this court determined that the result of this disclosure was that the fraud claim against Rambus was "claim-specific and standard-specific," requiring that the claims *pending* during Rambus's membership in JEDEC were the only ones that could support a fraud ruling. *Id.* at 1102. "Because the patents-in-suit were filed after Rambus left JEDEC in 1996," *id.*, and "substantial evidence does not support the finding that these [pending] applications had claims that read on the SDRAM standard," *id.* at 1103, "Rambus's claimed technology did not fall within the JEDEC disclosure duty," *id.* at 1104.

Hynix argues that our determination in *Infineon* that Rambus did not violate this duty is not binding in this case, primarily because all of the patents in suit claim priority to the '898 application through the patents pending during Rambus's JEDEC participation. Hynix contends that "a patentee may not insist on the filing date of the original application for prior art purposes, while asking for the patents to be viewed as filed several years later for purposes of its equitable disclosure obligations." Br. of Hynix at 39 (citing *Qualcomm*, 548 F.3d at 1019 (rejecting patentee's "ex post argument that the asserted patents do not meet the 'reasonably might be necessary' standard" where the patentee makes an "ex ante argument[] regarding infringement")). Hynix argues that the pending applications, Serial Nos. 222,646 ("646 application"), 847,961 ("961 application"), 469,490 ("490 applica-

tion”), and 448,657 (“657 application”), “contained claims to the five technologies at issue here,” *id.* at 40, and so this case is distinguishable from *Infineon*.

Were this court writing on a clean slate, it would be tempted to agree that equity demands that Rambus’s participation in JEDEC equitably estopped or waived its claims against standard-compliant products, notwithstanding its delay in amending its claims until after its exit from JEDEC. However, this court is not writing on a clean slate. *Infineon* involved a virtually identical factual situation. Just as Hynix attempts to do here, “Infineon relie[d] on other applications [(i.e., not the patents in-suit)] Rambus had pending before its 1996 withdrawal from JEDEC.” *Id.* at 1102. This court unequivocally held that the claims pending or issued during Rambus’s JEDEC tenure were not necessary to practice the standard because “substantial evidence does not support the finding that *these applications* had claims that read on the SDRAM standard.” *Id.* at 1103 (emphasis added). The phrase “these applications” did not refer to the patents-at-issue, but to Rambus’s pending and issued patents during its tenure in the standard setting organization. Thus, there is no inconsistency in alleging that the claims pending during Rambus’s participation in JEDEC were not reasonably necessary to practice the standards, but that the claims prosecuted after Rambus’s exit from JEDEC were.

Hynix does not argue that the ’646, ’961, ’490, or ’657 applications are more reasonably necessary to practice the SDRAM standard than the pending applications in *Infineon*. Hynix does not proffer any persuasive reason why our holding that Rambus did not breach its disclosure duty in *Infineon* does not control, or why the standard for breach is different in the waiver/estoppel context than in the fraud context. This court thus affirms the

district court's conclusion that Rambus did not waive its right to litigate, and is not equitably estopped from litigating infringement by standard-compliant DRAM.

ii. Claim Construction

In *Infineon*, this court reversed the district court's construction of "bus" in several related patents and some of the same patents at issue as limited to a multiplexed bus because: (1) "[t]he claims do not specify that the bus multiplexes address, data, and control information;" (2) the phrase "bus" has a "well-recognized meaning" in the electrical arts that is not so limited; (3) the prosecution history shows that "[a]lthough some of Rambus's claimed inventions require a multiplexing bus, multiplexing is not a requirement in all of Rambus's claims;" and (4) some claims further define "bus" as one that multiplexes, which implies that the patentee did not redefine "bus" to mean a "multiplexing bus." 318 F.3d at 1094-95. Hynix argues that this court has rejected the methodology used in *Infineon* by implication through our en banc decision in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005). This court disagrees.

Although *Phillips* ruled against the elevation of dictionaries above the specification, *id.* at 1321, this court nevertheless allowed the use of dictionaries "to assist in understanding the commonly understood meaning of words," *id.* at 1322, which is precisely the use that was made of the dictionary in *Infineon*, see 318 F.3d at 1094 ("The term 'bus' is very common in the electrical arts and has a well-recognized meaning in such arts, namely, a set of signal lines (e.g., copper traces on a circuit board) to which a number of devices are connected, and over which information is transferred between devices.") (citing *The New IEEE Standard Dictionary of Electrical and Electronic Terms* 141 (5th ed.1993)). This court in *Infineon*

determined that the specification could questionably be read to “limit the meaning of ‘bus’” in two places, but that the phrase should not be so limited because the prosecution history revealed that multiplexing was “only one of many inventions disclosed in the ’898 application.” 318 F.3d at 1094-95. Additionally, this court looked to the U.S. Patent and Trademark Office’s (“PTO”) restriction requirements, which showed “that some of the inventions described in the ’898 application did not require the multiplexing bus.” *Id.* at 1095. Finally, this court specifically recognized that inventors may define terms in the specification “implicitly,” and, like in *Phillips*, cited *Bell Atlantic Network Services Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268 (Fed. Cir. 2001) for the proposition that “[a] claim term may be clearly redefined without an explicit statement of redefinition.” *Infineon*, 318 F.3d at 1088.

Phillips counsels looking to the prosecution history to “show what a person of skill in the art would have understood disputed claim language to mean.” 415 F.3d at 1314. In *Infineon*, this court looked to the claim limitations of the ancestor patents, which included a claim limitation for “a bus wherein said bus includes a plurality of bus lines for carrying substantially all address, data and control information needed by said semiconductor device for communication with substantially every other semiconductor device connected to said bus [i.e., a multiplexed bus]”, a limitation that would be redundant if “bus” already meant “multiplexed bus.” 318 F.3d at 1096. *See also Phillips*, 415 F.3d at 1314 (“To take a simple example, the claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”).

Finally, as Rambus points out, this court has favorably cited the claim construction analysis in *Infineon* since

Phillips. Br. of Rambus at 31 (citing *Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1398 (Fed. Cir. 2008); *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1362 (Fed. Cir. 2008); *MBO Labs., Inc. v. Becton, Dickinson & Co.*, 747 F.3d 1323, 1330 (Fed. Cir. 2007)).

This court is thus bound by the claim construction of this court in *Infineon* for the term “bus.” Hynix’s arguments on the merits that this court should construe the term “bus” as limited to a narrow multiplexed bus are inapposite; this court is not writing on a clean slate. This court thus *affirms* the district court’s claim construction of “bus.”

iii. Written Description

At the district court, a jury determined that Rambus’s patents were not invalid for lack of written description under 35 U.S.C. § 112, paragraph 1. *See Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). Hynix moved for Judgment as a Matter of Law (“JMOL”) under Fed. R. Civ. P. 50(a) and 50(b), and moved in the alternative for a new trial. The district court denied both motions.

The test under the written description requirement is “whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad*, 598 F.3d at 1351. “The law must be applied to each invention at the time it enters the patent process.” *Id.* To overcome the presumption of validity of patents, the accused must show that the claims lack a written description by clear and convincing evidence. *ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1376 (Fed. Cir. 2009).

The denial of JMOL is a procedural issue, which this court reviews under regional circuit law. *Wechsler v. Macke Int'l Trade, Inc.*, 486 F.3d 1286, 1290 (Fed. Cir. 2007). The Ninth Circuit reviews a denial of JMOL de novo. *White v. Ford Motor Co.*, 312 F.3d 998, 1010 (9th Cir. 2002). JMOL is appropriate where “the evidence, construed in the light most favorable to the nonmoving party, permits only one reasonable conclusion,” *id.*, or in other words, whether the jury’s determination of facts is supported by “substantial evidence,” *Ariad*, 598 F.3d at 1355. A motion for a new trial can only be granted if “the verdict is contrary to the clear weight of the evidence.” *United States v. 4.0 Acres of Land*, 175 F.3d 1133, 1139 (9th Cir. 1999). The Ninth Circuit reviews the district court’s denial of a motion for a new trial on the basis that the verdict is not against the weight of the evidence for a “clear abuse of discretion,” a standard that is “virtually unassailable.” *Kode v. Carlson*, 596 F.3d 608, 612 (9th Cir. 2010) (internal citations omitted).

On appeal, Hynix’s sole argument is that Rambus’s amendments deleting the “narrow multiplexed bus” limitation in its continuation applications was unsupported by the written description of the ’898 application to which they all claim priority. Hynix argues that: (1) the “ultimate judgment” of written description is “a legal determination,” citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 427 (2007); (2) “disclosure of a species does not suffice to claim the genus;” and (3) *ICU Medical, Inc. v. Alaris Medical System, Inc.*, 558 F.3d 1368 (Fed. Cir. 2009) controls.

These arguments are unconvincing. First, whether a claim is supported by an adequate written description is a factual inquiry, and has been for some time. *Ariad*, 598 F.3d at 1355; *Utter v. Hiraga*, 845 F.2d 993, 998 (Fed. Cir. 1988). Hynix’s argument that the ultimate determination

of written description is a legal issue (relying on the Supreme Court's determination in *KSR*, 550 U.S. at 427, that obviousness is a legal issue) is unavailing; written description and obviousness are distinct legal doctrines. *Compare* 35 U.S.C. § 112, ¶ 1 (written description), *with* 35 U.S.C. § 103 (obviousness). As such, our review of the district judge's denial of a new trial and denial of judgment as a matter of law on written description is severely circumscribed as a factual issue already decided by a jury and approved by the district court.

Second, there is no categorical rule that a species cannot suffice to claim the genus. It is true that, in *Ariad*, we continued a line of prior holdings that "a sufficient description of a genus instead requires the disclosure of either a representative number of species falling within the scope of the genus or structural features common to the members of the genus so that one of skill in the art can 'visualize or recognize' the members of the genus." 598 F.3d at 1350 (discussing *Regents of the Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1568-69 (Fed. Cir. 1997)). *See also* *Bilstad v. Wakalopulos*, 386 F.3d 1116, 1124 (Fed. Cir. 2004) ("[T]his court has continued to apply the rule that disclosure of a species may be sufficient written description support for a later claimed genus including that species."). There is no special rule for supporting a genus by the disclosure of a species; so long as disclosure of the species is sufficient to convey to one skilled in the art that the inventor possessed the subject matter of the genus, the genus will be supported by an adequate written description. *See Ariad*, 598 F.3d at 1351. Whether the genus is supported *vel non* depends upon the state of the art and the nature and breadth of the genus. Here, the supposed genus consists of only two species, a multiplexed and a non-multiplexed bus, and Hynix has failed to make any argument that persons of

ordinary skill would not have understood that Rambus possessed a non-multiplexed bus. That is, Hynix has not argued that the disclosure of the multiplexed bus was not representative of the genus of buses that encompasses both the narrow multiplexed bus and the non-multiplexed bus.

There was substantial evidence that the invention would not be undermined by the use of a non-multiplexed bus, including testimony from Rambus's expert that a person of ordinary skill would "understand[] that buses come in all shapes and sizes. You can multiplex some lines, you cannot multiplex others [I]t can be different kinds of buses and you still benefit from the features described in the patent." Additionally, one of the inventors testified that the narrow multiplexed bus was not meant to be "something that all these different features [disclosed in the patents] needed to be used with." This testimony serves to aptly distinguish the cases cited by Hynix. See *ICU Med.*, 558 F.3d at 1372, 1374-75, 1378 (detailing solution to problems in the prior art of medical valves used in the transmission of fluids by "compress[ing] a seal on the valve to create a fluid pathway," noting that the spike was used to "pierc[e] a seal inside the valve" to effectuate the invention, and noting that no other method was disclosed to effectuate the fluid pathway because "the specification describes only medical valves with spikes"); *LizardTech, Inc. Earth Res. Mapping, Inc.*, 424 F.3d 1336 (Fed. Cir. 2004) ("[a]fter reading the patent, a person of skill in the art would not understand how to make a seamless DWT generically and would not understand LizardTech to have invented a method for making a seamless DWT, except by 'maintaining updat[ed] sums of DWT coefficients,' where 'maintaining update[ed] sums of DWT coefficients' was the limitation omitted in the claims). Though it would cer-

tainly be reasonable to conclude that Rambus's claims do not meet the written description requirement on the basis of *ICU Med.*, that argument was presented to the jury and rejected by it. Hynix has not presented any cogent argument that the jury verdict was unsupported by substantial evidence, or that it was against the clear weight of the evidence. As such, this court rejects Hynix's arguments, and affirms the district court's denial of Hynix's motions for JMOL and new trial.

iv. Obviousness

The district court submitted the question of obviousness of claims 24 and 33 of the '918 patent; claim 33 of the '120 patent; claims 9, 28, and 40 of the '916; and claim 16 of the '863 patent to the jury. After the jury returned a verdict that the claims were nonobvious, Hynix moved only for a new trial, which the district court denied. Hynix appealed, not challenging the denial of a motion for new trial, but rather the district court's "ultimate legal judgment of nonobviousness as 'an error of law.'" Br. of Hynix at 68 n.27.

Through the combination of its failure to move for JMOL to overturn the jury's finding of non-obviousness and its failure on appeal to contest the denial of a motion for new trial, Hynix has waived the right to contest the sufficiency of the evidence or the weight of the evidence, and this court implies from the jury verdict all facts in favor of Rambus. *See Duro-Last, Inc. v. Custom Seal, Inc.*, 321 F.3d 1098, 1108 (Fed. Cir. 2003) (noting that the failure to file a post-verdict JMOL waives the right to contest the jury findings for sufficiency of the evidence, and presuming "that the jury resolved all underlying factual disputes in [favor of the prevailing party]"). Hynix "may [only] challenge the judgment on the ground that the judge committed an error of law" in coming to his

legal conclusion of obviousness. *Southwest Software, Inc. v. Harlequin Inc.*, 226 F.3d 1280, 1297 (Fed. Cir. 2000).

Hynix nevertheless mines the district court’s comprehensive and well-reasoned opinion denying Hynix’s motion for a new trial for supposed legal errors. Hynix argues that the district court: (1) improperly considered “economic disincentives”; (2) improperly considered that “it is not easy to recognize when making such combinations will yield benefits, as opposed to messy, expensive complexity”; and (3) relied on the jury verdict of a lack of a motivation to combine. None of these arguments have merit.

First, in *KSR*, 550 U.S. at 419, the Supreme Court noted that “market demand” is a legitimate consideration in determining obviousness. Lowering cost is a ubiquitous market demand, and the fact that a combination is expected to increase cost has some bearing on the obviousness of that combination. Second, the district court’s statement referring to the ease of recognizing the benefits of a combination was to explain why the “incentive to combine existing pieces of circuitry” was not controlling, i.e., because it was unclear whether the combination would be beneficial or detrimental. How well a combination is expected to work is certainly a legitimate consideration in an obviousness inquiry. Finally, the rationale for combining references is a question of fact, *Duro-Last*, 321 F.3d at 1109, and, as discussed above, Hynix has waived its right to challenge the factual underpinnings of the obviousness determination.

Because Hynix has failed to show any legal error in the district court’s conclusion of nonobviousness, this court affirms the jury verdict of no obviousness.

D. Cross-Appeal

The district court granted summary judgment of non-infringement of claims 15, 18, 25, and 26 of the '214 patent; claims 36 and 40 of the '105 patent; claims 1 and 4 of the '365 patent; and claim 14 of the '152 patent. *Cross-appeal* at *5. The common link between these claims was the presence of the “second external clock signal” limitation, in addition to a “first external clock signal” limitation. Rambus challenges both the claim construction of the “second external clock signal” limitation and the grant of summary judgment assuming the district court claim construction was correct. This court reviews the district court’s claim construction de novo. *Hearing Components, Inc. v. Shure Inc.*, 600 F.3d 1357, 1370 (Fed. Cir. 2010).

Both parties agree that “external clock” signal means “a periodic signal from a source external to the device to provide timing information.” *Claim Construction* at *29-30. As the district court characterized it, the parties “disagree over whether the terms ‘first’ and ‘second’ refer to timing [as Hynix would have it], or whether they refer to two separate signals without reference to time [as Rambus prefers].” *Id.* at *30. The district court agreed with Hynix, and construed the phrase “second external clock” as “a periodic signal received by the memory device from an external source to provide second timing information that is different from the first timing information.” *Id.* at *31. Rambus briefly argues that this improperly imports a limitation from the specification into the claims. However, Rambus does not frame the issue fairly; the written description of the first and second external clocks was simply attempting to explain how Rambus’s invention works, not merely to disclose a preferred embodiment. *See* '152 patent, col.18 l.59–col.19 l.27. The only place where the clocks are referenced is in the discussion of avoiding propagation delay (i.e., the error resulting

from the different amounts of time it takes information to travel to locations at different distances from the source). As the district court recognized, Rambus's expert in *Infineon* testified that to correct for this delay, the two signals must contain different information. *Claim Construction* at *30. Thus, there was no importation of a preferred embodiment into the claims, but a fair categorization of the meaning of the claims. To the extent Rambus relies on other arguments in its reply brief, those arguments are waived as not presented in its opening brief. This court therefore affirms the district court's claim construction of the "second external clock" limitation.

Rambus next argues that even under the district court's claim construction, there was a genuine issue of material fact as to infringement sufficient to overcome summary judgment. Rambus asserts an issue of material fact as to whether the clock signals in Hynix's accused device provide *different* timing information. Rambus relies on its expert, Murphy, for the proposition that "[i]f the two signals provided the same information, the second signal would be superfluous, and it would make no sense for Hynix to go to the effort and expense of including it." Br. of Rambus at 76-77. Hynix does not address this point in its reply brief. However, it notes that Rambus does not dispute the district court's statement that "the timing information provided by each of Hynix's external clocks is different along every point on the signals' waveform *except the crossing points*." *Cross-Appeal* at *4 (emphasis added). At the crossing point, the two signals create a "tick," which is a single piece of timing information, and thus cannot meet the claim limitation of "second external clock" which requires the provision of a "second timing information different from the first timing information." This court agrees with Hynix that its accused

devices do not meet the “second external clock” limitation, and thus affirms the district court’s summary judgment of non-infringement of claims 15, 18, 25, and 26 of the ’214 patent; claims 36 and 40 of the ’105 patent; claims 1 and 4 of the ’365 patent; and claim 14 of the ’152 patent.

III. CONCLUSION

The district court’s Findings of Fact and Conclusions of Law regarding spoliation are vacated, as is the district court’s Final Judgment, and the case is hereby remanded for reconsideration of the spoliation issue under the framework set forth in *Micron II*. The district court’s decision on waiver and estoppel, its claim construction order, its order denying Hynix’s motion for judgment as a matter of law or for a new trial on the basis of written description, and its order denying Hynix’s motion for a new trial on the basis of obviousness, are affirmed. This court also affirms the district court’s grant of Hynix’s motion for summary judgment for the claims at issue in Rambus’s cross-appeal.

AFFIRMED-IN-PART, VACATED-IN-PART, AND REMANDED

COSTS

Costs are awarded to Hynix.

**United States Court of Appeals
for the Federal Circuit**

**HYNIX SEMICONDUCTOR INC.,
HYNIX SEMICONDUCTOR AMERICA INC., HYNIX
SEMICONDUCTOR U.K. LTD.,
AND HYNIX SEMICONDUCTOR DEUTSCHLAND
GMBH,**

Plaintiffs-Appellants,

v.

RAMBUS INC.,
Defendant-Cross Appellant.

2009-1299, -1347

Appeals from the United States District Court for the Northern District of California in case No. 00-CV-20905, Senior Judge Ronald M. Whyte.

GAJARSA, *Circuit Judge*, concurring-in-part and dissenting-in-part, with whom NEWMAN, *Circuit Judge*, joins.

I concur with the majority's affirmance of the district court's findings and conclusions in parts B, C, and D. I must, however, respectfully dissent from part A for the same reasons noted in my dissent in *Micron Technology, Inc. v. Rambus, Inc.*, No. 2010-1263, slip op. at 38-45 (Fed. Cir. May 13, 2011), the companion to this case. The majority here applies a rule for spoliation premised upon

a reasonably foreseeable litigation standard that it contoured and developed in *Micron*, slip op. at 12-14. Seizing on the district court's alleged grafting of an overly strict "gloss" on the reasonably foreseeable litigation standard, the majority claims that the district court erred as a matter of law by applying the wrong standard for spoliation. In so doing, the majority ignores the district court's well-articulated understanding of the relevant Ninth Circuit law and its factual findings, which demonstrate that the district court applied the very standard that the majority now requires. The majority obtenebrates the facts presented in the district court's opinion to resolve the conflict between the spoliation determinations in this case and in *Micron*.

Being a procedural matter, regional circuit law is applicable. Because the Supreme Court and the Ninth Circuit, like the Third Circuit, have not defined a standard for reasonably foreseeable litigation, this court may seek guidance from other circuits on the issue. See *Loctite Corp. v. Ultraseal Ltd.*, 781 F.2d 861, 875 (Fed. Cir. 1985), *overruled on other grounds by Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059 (Fed. Cir. 1998). The majority applies the standard it crafted in *Micron* to this case. The newly established standard is coined as a "flexible one"—lacking an additional "gloss" that requires litigation to be "imminent, or probable without significant contingencies" to find spoliation. *Micron*, slip op. at 13 (citation omitted).

The majority created this standard in *Micron* with the intention of reconciling the district court's spoliation determination in that case with the present one. The desires of an appellate tribunal, however, should not drive the outcome of decisions. Divergent district court opinions do not necessarily mean that the trial courts applied

different “glosses” on a particular standard.¹ Rather, this court must review district court opinions with the applicable standard of appellate review, which, in this case, is clear error or an abuse of discretion. In refusing to do so, the majority shirks its duties and performs its own factual analysis. The majority castigates the district court here for using a narrower “gloss” on the standard for spoliation just as the majority in *Micron* castigates the district court for holding the asserted patents unenforceable as a sanction for spoliation.

The majority begins with the correct premise that the various regional circuits generally do not require that litigation be imminent for it to be reasonably foreseeable. *See, e.g., Silvestri v. Gen. Motors Corp.*, 271 F.3d 583 (4th Cir. 2001) (“Spoliation refers to the destruction or material alteration of evidence or to the failure to preserve property for another’s use as evidence in pending or *reasonably foreseeable* litigation.” (emphasis added)). But unlike the majority, I am of the judgment that the district court here applied the appropriate flexible reasonably foreseeable litigation standard. The district court ex-

¹ In fact, there is no need to reconcile these divergent district court opinions. As the district court explained,

The judicious application of issue preclusion rests on an assumption that a prior decision was more or less correct. *Crawford v. Ranger Ins. Co.*, 653 F.2d 1248, 1252 (9th Cir. 1981). This assumption is not warranted where inconsistent decisions have been reached; it instead suggests that the outcomes may have been based on equally reasonable resolutions of doubt as to the probative strength of the evidence. *Id.*

Hynix Semiconductor, Inc. v. Rambus, Inc., No. 00-CV-20905, slip op. at 6 (N.D. Cal. Feb. 3, 2009) (D.I. 3897) (internal citation and quotation marks omitted).

plained that “[s]poliation of evidence is the . . . failure to properly preserve property for another’s use as evidence in pending or *reasonably foreseeable* litigation.” *Hynix Semiconductor Inc. v. Rambus, Inc.*, 591 F. Supp. 2d 1038, 1061 (N.D. Cal. 2006) (“*District Court Op.*”) (emphasis added) (citations and internal quotation marks omitted). The district court also relies on *Silvestri* and *Kronisch v. United States*, 150 F.3d 112 (2d Cir. 1999)—cases that the majority in *Micron*, slip op. at 13-14, cites in support of its flexible reasonably foreseeable litigation standard. Moreover, the district court here explicitly stated that “[a] reading of the court’s Findings and Conclusions . . . shows that the court specifically framed the issues to be resolved using the ‘reasonably foreseeable’ standard.” *See Hynix Semiconductor, Inc. v. Rambus Inc.*, No. 00-CV-20905, slip op. at 1-2 (N.D. Cal. Feb. 23, 2006) (D.I. 1732).

The factual findings on which the district court relies also support the conclusion that it applied the reasonably foreseeable litigation standard the majority imposes. As the majority acknowledges, the district court specifically found that the existence of *six* contingencies meant that litigation was not reasonably foreseeable until late 1999. *District Court Op.* at 1064. Those contingencies were:

- (1) the direct RDRAM ramp had to be sufficiently developed so as not to jeopardize RDRAM production;
- (2) Rambus’s patents covering non-RDRAM technology had to issue;
- (3) product samples from potentially infringing DRAM manufacturers had to be available in the market;
- (4) the non-compatible products had to be reverse engineered and claim charts made showing coverage of the actual products;
- (5) Rambus’s board had to approve commencement of negotiations with a DRAM manufacturer; and
- (6) the targeted DRAM

manufacturer had to reject Rambus's licensing terms.

Id. at 1062.

With respect to these contingencies, the district court determined that Rambus did not even "recommend[] initiating licensing negotiations" in the October 1998 presentation or even contemplate such negotiations until after early 1999, *id.* at 1062-63; that Rambus' board had not even budgeted for litigation as of June 1999, *id.* at 1063; and that Rambus did not have an "expectation of involvement in litigation" greater than one of its competitor companies, *id.* These findings were not clearly erroneous based on the record before the district court.

Indeed, the majority claims that the district court "understood that these contingencies were reasonably foreseeable [but] determined that the litigation was not," thus "reflect[ing] a mistaken view of the importance of these contingencies in determining the foreseeability of litigation." Majority Op. at 15. In other words, the majority reweighs the facts and decides that the district court's understanding of them was erroneous because it would reach a different conclusion from the same facts. The district court, as the fact finder, is the proper forum for weighing and analyzing the facts. *See Hensley v. Eckert*, 461 U.S. 424, 437 (1983). Putting its thumb on the scales by reweighing the evidence to reach a desired result is not the proper function of an appellate court.

Moreover, in its well-drafted opinion, the district court does not conclude at any time that the facts as determined fail to meet a more stringent clear or imminent threat of litigation standard. Instead, the majority seizes upon the district court's single use of the phrase "neither clear nor immediate" and concludes that the district court applied this standard. Majority Op. at 14-

17. The use of that phrase by the district court, however, is not to establish a standard but to distinguish the present facts from those in *Silvestri*, which the district court noted had “significant factual distinctions.” *District Court Op.* at 1061-62. Namely, the plaintiff in *Silvestri* chose to destroy the only relevant piece of evidence—the car that was supposedly defective—after experts inspected the car and advised him to preserve the car. 271 F.3d at 591-92. In explaining that the present facts did not establish a clear or immediate path to litigation, the district court was simply differentiating these facts from those in *Silvestri* that it believed to be significantly more egregious. This does not indicate, as the majority claims, that the district court applied an admittedly heightened standard to the facts before it.

Therefore, after a careful review of the record, the majority’s conclusion that the district court applied the incorrect legal standard rings hollow. While pretending to premise its conclusions on the improper application of a legal standard, the majority improperly substitutes its own fact findings for those of the district court. A court of appeals cannot and should not make such a judgment. Because the majority’s actions go beyond the purview of the duties of an appellate court, I respectfully dissent.