MR Technologies, GMBH v. Western Digital Technologies, Inc.
SA CV 22-01599 JVS-DFM

Tentative Order Regarding WD's Motions for New Trial and Judgment as a Matter of Law (<mark>redact</mark>ed)

Plaintiff MR Technologies, GMBH ("MRT" or "Plaintiff") filed this patent infringement suit against Defendant Western Digital Technologies, Inc. ("WD" or "Defendant") on August 26, 2022. Complaint, Docket No. 1. This matter proceeded to a jury trial on July 16, 2024. See Day One Minutes, Docket No. 527. The jury returned a verdict finding WD infringed Claims 1, 10, and 11 of U.S. Patent No. 9,928,864 (the "'864 Patent") and Claims 1 and 7 of the U.S. Patent No. 11,138,997 (the "'997 Patent"). Verdict, Docket Nos. 574, 575 (sealed). The jury awarded MRT $262,388,800 in damages. Id.

The Court addresses the following post-trial motions here:

- WD's Renewed Motion for Judgment as a Matter of Law (Rule 50(b) Mot., Docket No. 616; Rule 50(b) Memo, Docket No. 635; Rule 50(b) Opp., Docket No. 641; Rule 50(b) Reply, Docket No. 645);
- WD's Motion for New Trial (Rule 59 Mot., Docket No. 615; Rule 59 Memo, Docket No. 636; Rule 59 Opp., Docket No. 642; Rule 59 Reply, Docket No. 646).

For the following reasons, the Court **DENIES** WD's Rule 50(b) Motion and Rule 59 Motion.

I. Background

The Court summarized MRT's infringement allegations and discussed the asserted patents in its summary judgment ruling regarding infringement. Docket Nos. 340, 322 (sealed) at 3-4. That discussion is incorporated by reference here. Because WD focuses a majority of the arguments in its Rule 50(b) and Rule 59 motions on infringement, this discussion provides sufficient background.

II. Legal Standards

A.   Rule 50(b)

Considering the grant or denial of a motion for judgment as a matter of law presents "a procedural issue not unique to patent law, which [the Federal Circuit] review[s] under the law of the regional circuit where the appeal from the district court normally would lie." Riverwood Int'l Corp. v. R.A. Jones & Co., 324 F.3d 1346, 1352 (Fed. Cir. 2003); see also Applied Med. Res. Corp. v. U.S. Surgical Corp., 435 F.3d 1356, 1364 (Fed. Cir. 2006). Rule 50 authorizes the defendant to move for judgment as a matter of law anytime after the plaintiff's case-in-chief. Fed. R. Civ. P. 50(a). In determining whether to grant judgment as a matter of law, the court must determine whether the jury has a "legally sufficient evidentiary basis" to find for the plaintiff. Id. If the judge denies the motion, and the jury later returns a verdict against the defendant, the defendant may renew its motion for judgment as a matter of law after trial. Fed. R. Civ. P. 50(b); EEOC v. Go Daddy Software, Inc., 581 F.3d 951, 961 (9th Cir. 2009). Like the pre-verdict motion, the post-verdict motion also challenges the sufficiency of the plaintiff's evidence. Hagen v. City of Eugene, 736 F.3d 1251, 1256 (9th Cir. 2013). If the jury verdict is "supported by substantial evidence," the court must uphold the jury verdict. Pavao v. Pagay, 307 F.3d 915, 918 (9th Cir. 2002). However, if the evidence "permits only one reasonable conclusion, and that conclusion is contrary to the jury," the court may grant judgment as a matter of law to the defendant. White v. Ford Motor Co., 312 F.3d 998, 1010 (9th Cir. 2002) (internal quotation marks omitted). When reviewing the evidence, the court must view the evidence "in the light most favorable to the nonmoving party" and draw "all reasonable inferences" in favor of the nonmoving party. Torres v. City of Los Angeles, 548 F.3d 1197, 1205-06 (9th Cir. 2008) (internal quotation marks omitted).

B.   Rule 59

The power of the Court to grant a new trial under Fed. R Civ. P. 59(a) is "confided almost entirely to the exercise of discretion on the part of the trial court." Murphy v. City of Long Beach, 914 F.2d 183, 186 (9th Cir.1990). In deciding a motion for new trial, the Court "can weigh the evidence and assess the credibility of witnesses, and need not view the evidence from the perspective most favorable to the prevailing party." Landes Constr. Co., Inc. v. Royal Bank of Canada, 833 F.2d 1365, 1371 (9th Cir.1987). The district court should "set aside the verdict of the jury, even though supported by substantial evidence, where, in the court's conscientious opinion, the verdict is contrary to the clear weight of the evidence." Molski v. M.J. Cable, Inc., 481 F.3d 724, 729 (9th Cir. 2007) ("the district court has the duty to weigh the evidence as the court saw it") (internal alteration marks, quotation marks,

and citations omitted). However, a court should grant a new trial only when it "is left with the definite and firm conviction that a mistake has been committed," Landes Constr., 833 F.2d at 1372. and it "may not grant a new trial simply because it would have arrived at a different verdict." Silver Sage Partners, Ltd. v. City of Desert Hot Springs, 251 F.3d 814, 819 (9th Cir. 2001).

III.   Discussion

A.   WD's Rule 50(b) Motion

1.   Infringement Issues

WD argues that judgment as a matter of law is appropriate here because MRT failed to present sufficient evidence that the accused products include each and every limitation of the asserted claims. Rule 50(b) Memo at 1-2. Specifically, WD contests the sufficiency of the evidence with respect to the hard magnetic storage layer ("HMSL"), the nucleation host, and the coercivity requirements. Rule 50(b) Memo at 2. WD also argues that MRT improperly relied on data from unaccused products to prove infringement. Id. at 2-3.

i.   Hard Magnetic Storage Layer

Each asserted claim discloses a "hard magnetic storage layer." '864 Patent, Claims 1, 10, and 11; '997 Patent, Claims 1 and 7. Thus, for the infringement verdict to stand, the jury must have had a legally sufficient basis to conclude that the accused products include an HMSL.

The Court construed HMSL to mean "a magnetic layer that stores information in magnetically oriented bits." Docket No. 195 at 30. In doing so, the Court rejected an express "thermal stability" requirement in the claim language. Id. at 20. The Court rejected this requirement because the written description did not support any particular requirement or threshold and imposing such a requirement would trigger questions, including how to determine thermal stability and whether any particular layer "primarily determines" thermal stability. Id. The Court confirmed this finding in its summary judgment ruling on infringement but also acknowledged that some thermal stability appeared necessary for the layer to "store." See Docket No. 322 at 9-10. The Court denied summary judgment of infringement due to disputes of facts concerning (1) what component or components operate as the HMSL in the accused products and (2) whether the layers MRT identifies as the HMSL have the properties needed to "store" within the meaning of the asserted claims. Id. at 10.

Here, the record establishes a legally sufficient basis for the jury's finding that the accused products include a HMSL within the meaning of the asserted patents. The record shows that the bottom G layer, alone, meets the HMSL limitation given its relationship to the entire stack.

At trial, MRT identified G1-1 and SCL layers in the representative products as the HMSL. 7/18/24 Vol. I Trial Tr., Docket No. 628 at 57:10-12; see also id. at 64:14-16, 68:19-22, 74:3-5, 87:7-24, and 88:21-89:17. These layers do not, in isolation, store data.[1] See 7/18/24, Vol. II Rough Tr. at 65:5-13 (confirming that G-layers in isolation cannot store data for a reasonably long time); see also id. at 65:23-66:1 and 72:8-10 (confirming that all layers store the bits); see also 7/19/24 Vol. I Tr., Docket No. 629 at 37:21-24 (agreeing that the HMSL does not store data "on its own"); see also 07/23/24, Vol. II Rough Tr. at 97:6-21 ("The G1 layers – any of the G layers in the WD media stack cannot retain data for any meaningful period of time on their own.") and 99:17-100:20. The HMSL is a single layer and not a stack of layers. 7/18/24, Vol. II Rough Tr. at 65:1-13.

However, in the right context, the bottom G layers do store data in magnetically oriented bits. For instance, Re explained that effects on the "top layer of the nucleation host . . . propagate thro[]ugh to the bottom layer, the hard storage layer, so all the layers are flipped." 07/18/24 Vol. I Tr., Docket No. 628 at 87:4-6; see also id. at 88:24-89:4 (explaining "that the bottom layer of the stack gets switched to write a bit [and] is the bottommost G layer."); see also id. at 89:18-22 (confirming that each layer "has its own magnetic moment[s]" and thus "[e]ach of the layers store data."); see also Docket No. 613-1 at 37:10-16 and 268:24-269:02; see also 07/18/24 Vol. I Tr., Docket No. 628 at 95:6-10 ("[T]he top layer rotates, which interacts with the subsequent layers underneath to switch the hard storage layer on the bottom.").

In sum MRT clearly identifies the bottom layers in the representative products as the HMSL. These bottom layers do not store data in isolation. In other words, they would not store data separate from their role as part of the stack. However, the record clearly established that in the right context, i.e., when the G1 layer is part of the exchange coupled stack, it stores data. 07/24/24 Vol. I Tr., Docket No. 631 at 72:6-

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[1] The parties cite to the 7/18/24 Vol. II Transcript, the 7/19/24 Vol. II Transcript, the 7/23/24 Vol. II Transcript, and the 7/24/24 Vol. II Transcript. These transcripts have not been filed on the docket and are not attached as exhibits to WD's motion. In evaluating WD's arguments, the Court considers the rough transcripts prepared during trial. Going forward, Counsel shall take care to ensure that all cited material is either filed on the docket, and referenced by docket number in the briefing, or attached as an exhibit.

11. Claim 1 discloses an HMSL and other layers as part of "an exchange coupled magnetic multilayer structure." Id. at 72:5-73:12. See also 07/19/24, Vol. II, Rough Tr. at 56:8-21 (explaining that the entire stack stores the data and that "all layers switch and store together"). If all layers store, the G layer necessarily stores. The claim language and the Court's construction do not specify that the HMSL must store data in magnetically oriented bits in isolation. Rather, the claims discloses an HMSL as part of an exchange coupled magnetic multilayer structure. The record sufficiently establishes that the HSML itself does store data in this context.

Second, the Court does not find that MRT relied upon the entire stack as the HMSL layer at trial. In its summary judgment ruling, the Court noted several possibilities for the HMSL. For instance, the Court noted that a fact finder could determine that the HMSL stores because the entire stack, including the bottom layer, performs this function. Docket No. 322 at 7. The Court also indicated that a fact finder could potentially determine that the bottom layer, alone, does not meet the HMSL limitation and instead find that only the entire stack meets the storage limitation. Id. at 8. Upon review of the trial record, the evidence sufficiently establishes that the bottom layer does store, at least within the claimed context. Thus, the Court does not find that MRT proceeded under an "entire stack" theory, which the Court explained would be problematic. Id. The portions of the trial record that WD cites do not establish that MRT proceeded under an "entire stack" theory. See 07/18/24 Vol. I Tr., Docket No. 628 at 34:7-9 (confirming that the ferromagnetic layers of the nucleation host also store data); see also id. at 40:18-22 and 41:13-20; see also 07/18/24 Vol. II Rough Tr. at 65:16-22, 66:206, and 72:18-25 (explaining that all layers are needed to perform the switching which enables storage). At most, this evidence establishes that other layers also store data. It does not show that the bottom layer cannot store data in the claimed context.

Third, WD's criticisms of MRT's arguments do not present a basis to disturb the verdict. WD argues that MRT incorrectly characterizes WD's non-infringement position as requiring physical removal of the HMSL from the stack. Rule 50(b) Memo at 8. For the reasons discussed above, this point is not relevant. Sufficient evidence shows that the representative products include an HMSL that stores. Moreover, WD misstates the claim scope. WD argues the claims require "a distinct HMSL that itself stores information in magnetically oriented bits – **regardless of whether it is located within a stack**." Id. at 8-9 (emphasis added). The emphasized portion is not correct. An HMSL within the context of the asserted claims is an HMSL that is part of an exchange coupled stack. WD further argues that even though

both the nucleation host and the HMSL may store, the claim still requires a distinct HMSL and nucleation host. Again, as discussed above, MRT did not proceed on an "entire stack" theory. This criticism is not applicable here.

ii.   Nucleation Host

Each asserted claim discloses a "nucleation host." '864 Patent, Claims 1, 10, and 11; '997 Patent, Claims 1 and 7. The Court construed nucleation host to mean "a structure that includes ferromagnetic layers that assist in switching the hard magnetic storage layer, and optional coupling layers." Docket No. 195 at 30. WD contends that MRT presented unreliable evidence at trial for the "assist in switching" limitation. Rule 50(b) Memo at 11. Specifically, WD faults MRT's expert, Re, for not performing his own tests based on the accused products. Id. MRT argues there was no need to do so given WD's own documents and engineer testimony about the accused products. Rule 50(b) Opp. at 12.

As to the "assist in switching" limitation, Re admitted that he personally did not perform any measurement showing that the top layer of the stack moves earlier than the bottom layer. See 07/18/24 Vol. II Rough Tr. at 76:20-77:2. He indicated that Seuss' simulation shows this process. Id. at 77:7. Re further testified that switching must occur in a "cascade" as opposed to simultaneously in the accused products based on the laws of physics. Id. at 80:8-13; see also 7/19/24 Vol. I Tr., Docket No. 629 at 25:6-12. He did not confirm this testimony with measurements given the difficulty in making these types of measurements. Id. at 80:14-18; see also 7/19/24 Vol. I Tr., Docket No. 629 at 23:1-9 (explaining that the purpose of an exchange coupling layer is to have the alloy switch incoherently (cascade) and that the purpose of using lower anisotropy layers at the top of the stack is so those layers start to switch first). Suess' pre-infringement model confirms the physics. 7/19/24 Vol. I Tr., Docket No. 629 at 32:2. However, Suess' model was not based on the accused products because Suess had not seen that data. Id. at 32:4-13.[1]

Desai testified that in the accused products all layers switch together but failed to provide any evidentiary support for his opinion. 7/23/24 Vol. I Tr., Docket No. 630 at 35:20-36:17. He also testified previously at his deposition that, "since the exchange coupling is higher, it's a larger effective magnetic grain switches the layer first. And then through the weakly magnetical [sic] -- magnetically ECLs will assist

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[1] WD objects to Seuss' model because it is not based on the accused products but WD does not otherwise challenge the accuracy of the model. See, e.g., Reply at 9.

the switching of the rest of the layers in that certain direction." Id. at 41:21-42:1. He also agreed that the exchange coupled G2 and G1 layers "influence . . . each other." Id. at 42:9-12. Srinivasan, a former WD engineer, also testified that "the top layer assists in the switching of the middle layer and then the middle layer assists in the switching of the storage layer," though he later indicated this switching may not apply in a multilayer structure with layers of varying hardness. Docket No. 542-2 at 95:711-13 and 123:08-16.

In sum, the combination of test data, simulation, and physics expertise supports Re's opinion. Desai and potentially Srinivasan's testimony could also be interpreted to support an infringement finding. The jury was entitled to consider all of this evidence in forming its infringement determination. Moreover, WD's cited authority does not stand for the proposition that an expert must measure the accused products for all aspects of the claim limitations to prove infringement. It merely establishes that "conclusory testimony" unsupported with "examinations or tests of the actual accused products" is insufficient. Yoon Ja Kim v. ConAgra Foods, Inc., 465 F.3d 1312, 1320 (Fed. Cir. 2006). Similarly, Smith v. Garlock Equip. Co. stands for the unremarkable principle that an expert must opine that the accused device meets all limitations to support an infringement position. 658 F. App'x 1017, 1024 (Fed. Cir. 2016). Here, Re used test data from the accused products to support his opinions. Reliance in part on a simulation and physics principles where actual measurement proved difficult does not render his opinion conclusory or unreliable.

iii. Coercivity

The asserted claims also disclose comparative coercivity requirements for the HMSL and nucleation host. The HMSL has a coercive field greater than 0.5 Tesla. '864 Patent, Claim 1. The nucleation host has a coercive field less than the coercive field of the HMSL. Id.

WD faults Re for not measuring the coercive fields of the HMSL and nucleation host. Rule 50(b) Memo at 14. Rather, Re used the formula disclosed in the asserted patents to calculate the coercive field of the HMSL and nucleation host. See 07/17/24 Vol. I Tr., Docket No. 622 at 106:12-21. The formula is $H = 2K/M$ where H is the coercive field, K is the anisotropy and M is the magnetization. Id.; see also 07/18/2024 Vol. I Tr., Docket No. 628 at 45:14-16. Re input WD's test data into the formula to determine the coercive field of the HMSL and nucleation host in the accused products. 07/18/24 Vol. I Tr., Docket No. 628 at 57:16-58:22. WD argues this method is unreliable for two reasons.

First, WD argues the formula only applies to a bilayer structure with uniform and parallel magnetization. Rule 50(b) Memo at 14-15. The patent discloses the formula in this context but does not anywhere say that the formula only applies in this context. See 07/18/24 Vol. II Rough Tr. at 103:2-21. The Court already rejected this argument at the Daubert stage, finding "whether the formula is applicable is a fact issue for the jury to resolve." Docket No. 474 at 7. At trial, Re confirmed that "the equation still holds" in the context of the representative products. 07/18/24 Vol. II Rough Tr. at 103:20-21; see also id. at 104:16-17 ("But, again, this is the standard way of averaging these values.") Further, MRT presented evidence at trial confirming that the 2K/M formula is appropriate in this context. See e.g., 07/18/24 Vol. I Tr., Docket No. 628 at 91:1-17 (explaining that WD engineer confirmed the formula is appropriate for recording at a short timescale). Accordingly, the record includes sufficient evidence to support the jury's finding that the 2K/M formula is an appropriate measure of coercivity under the conditions at issue.

Second, WD argues that the formula and Re's application do not account for factors that may affect the accuracy of the calculations. Rule 50(b) Memo at 15; see 07/17/24 Vol. II Tr., Docket No. 627 at 43:25-44:3; see also id. at 44:4-46:16 (confirming that accuracy depends on many factors, potentially including layer thickness, the anisotropy constant and ratio, the shape of the grain, and how fast the field is applied.) Still, Re went on to testify that on a short timescale (recording condition of 1 nanosecond) he felt that the equation provided a good way to measure the coercive field. Id. at 46:17-21. Here, the Court does not find that Re's application of the formula presents a threshold reliability issue. Rather, the jury properly considered the accuracy of Re's method and WD's challenges to that methodology. Accordingly, the record includes sufficient support for the jury's infringement finding as to the coercivity limitation.

iv. Unaccused Product Data

WD argues that Re used a K value from an unaccused product to calculate the coercive field for the Group 3 representative products. Rule 50(b) Memo at 16. Re confirmed that he used data for a product, Cobra, which did not appear on the list of accused products he showed the jury. See 07/18/24 Vol. II Rough Tr. at 91:2-15. Re confirmed that he used this different dataset for the anisotropy and magnetization values for the G1 (bottom) layer of the Group 3 products. 07/18/2024 Vol. II Rough Tr. at 84:23-85:2. He did so even though the dataset he relied upon for the values of all other groups included a K value for the alloy for the G1 layer in the Group 3

products as well as an M value. Id. at 86:18-23 and 88:4-9. Thus, WD argues that MRT failed to present reliable evidence establishing infringement as to the Group 3 products. Rule 50(b) Memo at 16. WD is incorrect for two reasons.

First, Re testified that the alloy for the unaccused product is the same as the alloy present in the Group 3 products. 07/18/2024 Vol. I. Tr, Docket No. 628 at 71:1-72:5, 92:11-20, and 98:14-21; see also 07/18/24 Vol. II Rough Tr. at 88:20-25 (confirming the alloy is the same) and 92:9-10 ("I used it for the alloy that was listed."); see also 07/19/24 Vol. I Tr., Docket No. 629 at 21:25-22:2 (confirming that alloy number refers to the same composition). Accordingly, the K value is the same for those products. Given this testimony, there is no threshold reliability with Re's method. Further, substantial evidence supports the jury's determination as to the Group 3 products.

Second, Re testified that even if he had used the value that WD contends he should have, the calculated coercive field would still meet the claim limitations. 07/18/24 Vol. I Tr., Docket No. 628 at 72:22-72:10. Re did confirm that the values in the data he used for the Cobra product, and the values in the data WD contends he should have used differed, even though the values referenced the same alloy. See 07/19/2024 Vol. I Tr., Docket No. 629 at 33:15-34:10. Desai also testified that values for the same alloy would differ in a different product. Id. at 59:5-7. Still, the difference did not affect MRT's infringement position, which cuts against Desai's position Id. at 33:18 ("It would still infringe."); see also 07/19/24 Vol. II Rough Tr. at 100:5-8. The jury was entitled to consider all of this testimony to determine infringement and was not obligated to afford Desai more weight than Re.

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For the foregoing reasons, WD's Rule 50(b) motion is **DENIED** as to infringement. Substantial evidence supports the jury's determination that the representative products each include an HMSL and a nucleation host and meet the coercivity requirements.

2.   Damages Issues

i.   Amount

The Court finds the amount of damages adequately supported. WD argues that Bergman failed to apply the *Georgia-Pacific* factors to explain how the "input number of $305.9 million is transformed into the final number that the parties would

have arrived at in a hypothetical negotiation." Rule 50(b) Memo at 17. WD is incorrect for several reasons.

First, the $305.9 million is not an "input number" or "lump sum." Id. Rather, this number is the end result reached by Bergman after applying his "income approach" method. Bergman Report, Docket No. 359-6 ¶ 314. Section XIV of Bergman's report explains the income approach. See id. ¶ 82 et seq. The paragraphs in this portion, not the portions WD cites, explain how Bergman calculated the $305.9 million figure. See id. ¶ 179. Instead of an "input," this number an amount that Bergman determined based on his income approach, on one of the two independent approaches he took to assess damages.

Second, Bergman's discussion of the *Georgia-Pacific* factors goes beyond "superficial recitation" and "conclusory remarks." Whitserve, LLC v. Computer Packages, Inc., 694 F.3d 10, 31 (Fed. Cir. 2012) (finding expert testimony that failed to "explain how much each factor affected the rate" insufficient). Here, Bergman tied his discussion of the factors the proposed amount. Exmark Mfg. Co. Inc. v. Briggs & Stratton Power Prod. Grp., LLC, 879 F.3d 1332, 1350 (Fed. Cir. 2018) ("[D]amages experts must not only analyze the applicable factors, but also carefully tie those factors to the proposed royalty rate.") For instance, Bergman discussed a lack of non-infringing alternatives, 07/29/24 Vol. I Tr., Docket No. 629 at 60:16-21, the state of the art, id. at 61: 24-62:2, the incremental benefit of the infringing features, id. at 62:3-9, and other topics.

Third, the ruling in the clarification order did not address the same situation. WD equates Becker's ███████████████████████████████████ ██████, with Bergman's $305.9 million, calculated based on his income approach. Rule 50(b) Memo at 17-18; see also Becker Report, Docket No. 347-2 ¶ 97. These numbers differ in important ways. As explained in the clarification order, Becker ██ to corroborate his analytical approach. Clarification Order, Docket No. 505 at 1 (citing Becker Report ¶ 265). It does not appear that Becker offered the lump sum as an independent measure of damages. Even if he did, as WD contends, that would have been improper for two reasons. One, a single license usually cannot establish the applicable royalty rate. See Hanson v. Alpine Valley Ski Area, Inc., 718 F.2d 1075, 1078 (Fed. Cir. 1983).

Two, Becker's starting value of $1.4 million is the same as his endpoint. See Rule 59 Memo at 17. WD indicates that Becker used the starting point of $1.4

million based on factors 1, 2, and 12. Rule 49 Memo at 17. Becker adjusted downward based on factor 3. Id. Becker did not adjust based on factors 4-6. Id. Becker adjusted downward again based on factor 7. Id. Becker did not adjust based on factors 8-10. Id. $1.4 million, twice adjusted downward, is not equivalent to $1.4 million. Thus, while Becker did discuss the *Georgia-Pacific* factors, he ultimately applies the same lump sum from the Panasonic license as the applicable rate here even though he acknowledges there are differences. His own testimony commenting on these differences cuts against applying the Panasonic lump sum here. Uniloc USA, Inc. v. Microsoft Corp., 632 F.3d 1292, 1317 (Fed. Cir. 2011) ("[T]here must be a basis in fact to associate the royalty rates used in prior licenses to the particular hypothetical negotiation at issue in the case.")

Finally, an income approach may stand alone to support a jury's damages findings. Energy Transp. Grp., Inc. v. William Demant Holding A/S, 697 F.3d 1342, 1357 (Fed. Cir. 2012) (finding "analysis compar[ing] the average expected profit margin on the infringing products . . . to the industry average expected profit margin . . . an entirely separate damages analysis that supported the jury's verdict."); see also Summit 6, LLC v. Samsung Elecs. Co., 802 F.3d 1283, 1296 (Fed. Cir. 2015) ("A party may use . . . value the infringed features based upon comparable features in the marketplace, or value the infringed features by comparing the accused product to non-infringing alternatives.")

ii.   SSPPU

Here, the parties again dispute what the SSPPU is in this case. WD contends the SSPPU is the media in the hard drive. MRT contends the SSPPU is the hard drive itself. Again, the issue here is similar to the issue in Broadcom Corp. v. Emulex Corp., which held:

> Broadcom has offered sufficient evidence to permit a reasonable jury to find that the chips rather than SerDes cores are the smallest saleable unit. It is undisputed that the smallest unit Emulex sold was the chips. This already discounted several larger standalone products Emulex sold. Emulex did not controvert this evidence at trial, and its own expert prepared its report using the chips as the royalty base. Additionally, the Alacritech technology was similarly located in a module then installed on the chips. The license agreement there also used the chip as the royalty base not something smaller. Allegations that SerDes cores are sold individually by other merchants at this point do not change the analysis because it was reasonable for a jury to rely on the fact that the

chips here were the smallest unit sold by the infringer, as the processors were in *Cornell,* and had been used as the base in other agreements.

No. CV 10-03963-JVS, 2011 WL 11025895, at *7 (C.D. Cal. Dec. 13, 2011), aff'd, 732 F.3d 1325 (Fed. Cir. 2013).

The jury was entitled to consider the competing evidence presented at trial and conclude that the entire drive is the SSPPU. MRT presented evidence that the entire drive is the SSPPU. See 07/18/24 Vol. II Rough Tr. at 49:10-14 ("Western Digital does not sell the disks that they make. They're all integrated into hard disk drives."); see also 07/19/24 Vol. I Tr., Docket No. 629 at 124:12-17. Bergman did admit he did not know whether the media could be purchased separately from a party other than WD. See id. at 127:5-22. WD points to testimony from Salayphonh, director of revenue and accounting at WD. Rule 50(b) Memo at 19; see also 07/23/25 Vol. II Rough Tr. at 62:25-63"2. Salayphonh, testified that WD has purchased media platters from Showa Denko, which are used in various hard disk drives, including the accused products. 07/23/24 Vol. II Rough Tr. at 72:7-24. Though the evidence here is more limited than in Broadcom, the competing evidence and the lack of specificity in Salayphonh's testimony supports a determination that the entire disk is the SSPPU.

Moreover, MRT indicates it did apportion the value down to the media, notwithstanding its position that the entire disk is the SSPPU. See 07/19/24 Vol. I Tr., Docket No. 629 at 126:10-11 ("[M]y analysis initially carves out the entire value of everything else and gets to the media before I start doing my allocation.") Thus, even if WD is correct as to the SSPPU, substantial evidence still supports the jury's damages finding given Bergman's apportionment. *Virnetx, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1329 (Fed. Cir. 2014) ("The law requires patentees to apportion the royalty down to a reasonable estimate of the value of its claimed technology.")

iii.   Regression Model

The Court does not find the regression model Bergman used unreliable. WD faults Bergman for relying on values for only 56% of the accused products, which WD contends affects the gross profit per terabyte. Rule 50(b) Memo at 20-21. Bergman confirmed he relied on the 56% during trial, indicating that, as to the remaining 44%, "it's not that precise amount, but it is informed by the other amounts." See 7/19/24 Vol. I Tr. 131:11-132 and 132:4-19. Bergman also testified that he ran separate regressions on other products, except for 2% that he felt would not make a difference. See id. at 83:14-22. Bergman also confirmed that, mathematically, an error in the price per terabyte would also affect the gross profit per

terabyte. See 7/19/24 Vol. II Rough Tr. at 17:22-18:10. He did not however, concede that he made any error in his calculations. Finally, Bergman testified that his projected gross profit amount under the regression model is different from WD's actual gross profits during the relevant period. Id. at 28:12-22. However, Bergman explained this discrepancy. His gross profit amount focused on profit attributable to capacity gains, which in his opinion drive the value of the product. Id. at 32:10-25. The actual profits were lower because they would include costs for components that do not, in Bergman's opinion, drive the value of the profits. Id.

Here, WD generally argues that Bergman's opinions are not reliable or not tied to the infringing features. See Finjan, Inc. v. Blue Coat Sys., Inc., 879 F.3d 1299, 1309 (Fed. Cir. 2018) (quoting Ericsson, Inc. v. D–Link Sys., Inc., 773 F.3d 1201, 1226 (Fed. Cir. 2014)). WD does not, for instance, explain the effect that relying upon only 56% of the accused products would have or cite any caselaw demonstrating that this approach is improper. WD refers to general mathematical principles without showing that Bergman made an error rendering his calculations inaccurate. Similarly, as to the gross profits, Bergman explains the discrepancy is due to a decision he made to accurately capture the value of the claimed improvement, not an error. The jury was entitled to either accept or reject Bergman's explanation. The fact that the numbers differ, alone, does not render Bergman's opinion unreliable.

B.   WD's Rule 59 Motion

The Court focuses here on the rulings that WD contends support a new trial as opposed to WD's "weight of the evidence" arguments. Though the Rule 50(b) and Rule 59 standards differ, the Court finds that the above discussions concerning the sufficiency of the evidence apply equally to both motions. In other words, the Court has not identified any situations in which the jury's verdict is supported by substantial evidence but the weight of the evidence compels a different outcome. See § III, supra. Moreover, though Courts may weigh evidence in deciding a Rule 59 motion, here the Court has not identified a situation in which weighing the evidence compels a different outcome. Id.

1.   Challenged Infringement Rulings

i.   Distinct Modules Exclusion

As this case progressed, WD took the position that the accused products cannot infringe because the nucleation host and the HMSL must be two distinct modules. WD appears to argues that in the accused products, all layers both switch and store,

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and thus do not meet this distinct modules requirement. The Court excluded this theory as an undisclosed reverse doctrine of equivalents ("RDOE") theory.

The ruling excluding the two modules theory was correct for two related reasons. First, the two modules theory is an RDOE theory. Second, the theory contradicts the Court's claim construction order.

Under the RDOE, "where a device is so far changed in principle from a patented article that it performs the same or a similar function in a substantially different way, but nevertheless falls within the literal words of the claim, the doctrine of equivalents may be used to restrict the claim and defeat the patentee's action for infringement." Graver Tank & Mfg. Co. v. Linde Air Prod. Co., 339 U.S. 605, 608–09, 70 S. Ct. 854, 856, 94 L. Ed. 1097 (1950) (citation omitted). Here, as written and construed by the Court, the claims allow for the possibility that both the HMSL and nucleation host switch and store. See § III.B.1.iii, infra. WD appears to argue that even though the accused devices may fall within the literal claim scope, i.e., both layers switch and store, the overlap in functionality changes the device to the point that it does not infringe. This is an RDOE argument.

Next, as discussed more fully below with respect to the curative instruction, WD's "separate and distinct" position is not consistent with the words of the claims or the Court's constructions. Id.

Finally, the Court's summary judgment order did not "endorse" any particular argument. See Rule 59 Memo at 3. Rather, the order noted several differing infringement theories and potential consequences of those theories. See § IV.A.1.i, supra. The Court did note that "to the extent the fact finder determines only the entire stack meets the hard magnetic storage limitation, this finding may prevent the fact finder from identifying a distinct nucleation host" and further reasoned that "identifying the same components as meeting both the hard magnetic storage layer and the nucleation host poses problems, especially in view of the differing coercive field requirements." Docket No. 322 at 8-9 (internal quotation marks omitted). For instance, the surrounding claim language requires that (1) the nucleation host forms a coercive field without the hard magnetic storage layer and lower than the hard magnetic storage layer and (2) the nucleation host is formed on the hard magnetic storage layer such that the hard magnetic storage layer is between the nucleation host and the non-magnetic substrate. '864 Patent, Claim 1. This language suggests that these HMSL and nucleation host must differ in at least some ways. The Court's noted

concerns did not materialize because MRT did not argue that the "entire stack" is the HMSL at trial. Rather, MRT argued that the bottommost G layer is the HMSL and the upper G layers the nucleation host.

ii.   Simultaneous Switching Exclusion

During trial, the Court excluded WD's affirmative position that the accused products do not infringe because the nucleation host does not assist in switching. 07/23/24 Vol. I Tr., Docket No. 630 at 8:2-16:14. WD argues that (1) this opinion was disclosed in Bertero's report and Desai's deposition, (2) it is not a reverse doctrine of equivalents opinion, and (3) it is appropriate rebuttal to an untimely theory from MRT. See Rule 59 Memo at 5-6. None of the arguments are persuasive.

The first two issues are related. The Court excluded reverse doctrine of equivalents ("RDOE") theories at the motion in limine stage as undisclosed. See Order, Docket No. 473 at 3-4. Specifically, the Court excluded ¶¶ 184-213 of Bertero's Report (Docket No. 345-4). Id. at 4. WD presently argues that ¶¶ 111-14 of Bertero's Report (Docket No. 395-9) discloses WD's non-RDOE position. Rule 59 Memo at 6. MRT argues that Bertero never opined that the upper G layers do not assist in switch. Rule 59 Opp. at 10-11. The cited portions of Bertero's report disclose WD's position that "all layers switch" or "the entire stack switches." They do not expressly disclose any theory that the nucleation host does not assist in switching. Bertero does state, "[t]his dichotomy of roles in the written description between the nucleation host (switching) and the hard magnetic storage layer (storing) is retained in the claims and in the Court's claim constructions." Id. ¶ 114. However, as discussed above, the Court properly excluded this untimely RDOE theory.

As to the remaining issue, MRT's "domino" theory was not untimely. MRT disclosed incoherent switching in its infringement contentions. Docket No. 287-4 at 21 (including image showing "incoherent rotation"). Re's use of an analogy is not a new theory.

iii.   Curative Instruction

The Court provided the following curative instruction during trial:

"[I]f the accused hard magnetic layer meets the elements of the claims but also assists in switching one or more layers in the stack, then it nevertheless may still meet the [] 'hard magnetic storage layer' element in the claim. Similarly, if the accused 'nucleation host' meets the elements in the claims but also stores information in magnetically

oriented bits, then it nevertheless may meet the 'nucleation host' element of the claim. As long as the elements in the claim are met, there is infringement."

7/26/24 Vol. I Tr., Docket No. 633 at 38:20-39:6.

WD argues this instruction was improper because it emphasized MRT's infringement theory at the expense of WD's non-infringement position. Rule 59 Memo at 7. The instruction was necessary to correct the implication that only the HMSL stores and only the nucleation host switches, which WD's separate modules theory emphasized throughout trial.

Here, the claims require:

- an HMSL having a coercive field of greater than 0.5 Tesla, formed on the underlayer. The Court construed HMSL to mean "a hard storage layer that stores data in magnetically oriented bits"

- a nucleation host that has a coercive field without the HMSL, the coercive field being lower than that of the HMSL. The Court construed nucleation host to mean "a structure that includes ferromagnetic layers that assist in switching the hard magnetic storage layer, and optional coupling layers."

- the nucleation host is formed on the HMSL such that the nucleation host is between the HMSL and non-magnetic substrate.

At most, the Court agrees that the exact same components cannot be both the nucleation host and the HMSL because the claims require that these layers have different coercive field measurements. The same alloy would result in the same field measurement. But that does not mean that these components must exclusively perform separate functions or be "separate" and "distinct" in some other way. Rather, they just need to meet the claim limitation that distinguish the nucleation host and HMSL, listed above.

Accordingly, this instruction is accurate. While it unfortunately may have emphasized MRT's position, it was necessary to correct WD repeated implication that the HMSL cannot switch and the nucleation host cannot store. See, e.g., 7/18/24 Vol. II Rough Tr. At 65:5-66:14, 72:16-25; 7/19/24 Vol. I Tr., Docket No. 629 at 37:7-24; and 7/23/24 Vol. II Rough Tr. at 99:10-100:5, 101:18-21.

Moreover, the instruction fundamentally differs from the improper instruction in LoggerHead Tools, LLC v. Sears Holding Corp.. There, the court instructed the jury that the claimed "arm portion" "must" be a sub-portion of a gripping element. No. 12 C 9033, 2017 WL 6569629, at *1 (N.D. Ill. Dec. 22, 2017). Here, the Court did not in any way specify that the HMSL must overlap or share characteristics with the nucleation host. Rather, it said that to the extent they share certain unclaimed characteristics, that should not prevent an infringement finding.

2. Challenged Invalidity Rulings

WD objects to two invalidity related rulings in this case. First, WD argues the Court should not have prevented WD from referencing the specification of the asserted patent in two instances. Rule 59 Memo at 11-12. Second, WD argues the Court should not have found insufficient motivation to combine as to Berger and Li. Id. at 14. Neither ruling justifies a new trial here.

As to the specification issue, the Court granted MRT's motion in limine preventing WD from relying on the specification of the asserted patents to establish motivation to combine prior art references cited in the specification. Order, Docket No. 473 at 8. Showing that two references are in the same field of endeavor, without more, does not necessarily establish motivation to combine. Accordingly, allowing WD to reference the specification of the asserted patents for the limited purpose of establishing the field of endeavor for the Hagedorn reference would have been acceptable. Still, this exclusion does not warrant a new trial. One, WD elicited testimony going beyond this limited purpose, which was why the Court excluded the testimony. 07/25/24 Vol. II Rough Tr. at 95:14-98:18. Two, using the specification for the limited purpose of establishing the field of endeavor was not necessary because Re agreed the Hagedorn reference discusses multiple layers. Id. at 95:14-23.

WD also argues the Court improperly prevented WD from citing disclosure in the specification to show putting the HSML on the bottom was known in the art. Rule 59 Memo at 12 (citing '864 patent at 4:17-25). The Court's ruling was correct here. The specification does not establish that putting the HSML on the bottom was known in the art. Rather, the specification merely discloses that, "the order of the layers can be reversed." '864 Patent at 4:25. The background section discusses several references. Id. at 1:26-2:29. However, the specification itself does not attribute the idea of putting the HMSL on the bottom to any of these references. Thus, WD should have discussed the underlying references, not the specification of the asserted patents, to make its position. The Court's exclusion was proper and not prejudicial.

The Court also maintains its in limine ruling that WD's motivation to combine Berger and Li was insufficient. WD cites several paragraphs of Victora's report, arguing that these portions establish motivation to combine Berger and Li. Rule 59 Memo at 14 (citing Docket No. Dkt. No. 343-2 ¶¶ 794-806). However, the bulk of this testimony relates to Hagedorn, not Li. The only portion referencing Li is insufficient for the reasons set forth in the Courts in limine ruling. The final paragraph, ¶ 806, groups all of the references together but does not explain why individual references should be combined with each other.

3. Challenged Damages Rulings

Again, though the Court appreciates the different legal standards of Rule 50(b) and Rule 59, many of the issues WD raises here overlap with those discussed above. The Court finds that the discussions above apply equally here to (1) the appropriateness of the $305.9 million figure and (2) the Panasonic lump sum. Accordingly, the Court here addresses only whether WD should have been able to present a damages figure based on the evidence introduced at trial. See Rule 59 Memo at 18. For the following reasons, the Court requires additional information to resolve the issue.

The Court found that the calculation based on Goglia's new number came too late. See 07/24/24 Vol. I Tr., Docket No. 631 at 15:12-16. MRT argued that Becker, in his report, never said he would use Goglia's numbers in a particular way. Id. at 13:1-7. WD argued that Goglia's new number came out at trial and that experts are entitled to rely on evidence that comes out at trial. Id. at 14:16-19. Here Becker's report discloses relying on PiS% values of either 2.7% or 4.0% and explaining how these percentages, instead of Bergman's 46%, affect the overall damages calculation. Becker Report, Docket No. 395-11 ¶ 369, n.435. To the extent the Court did not exclude this testimony in its in limine rulings, it would be appropriate for Becker, relying on Goglia, to explain how a particular PiS% could affect the damages calculation. This type of calculation was disclosed.

Here, the problem appears to be Goglia's previously undisclosed 4.9% figure, as opposed to Becker's calculation. The parties do not discuss the timeliness or propriety of that figure and instead focus on Becker's calculation. At the hearing, the parties shall address the appropriateness of Goglia's 4.9% figure. It does not appear that MRT objected to the 4.9% figure during trial. See 07/23/24 Vol. II Rough Tr. at 36:20-24.

IV. Conclusion

For the foregoing reasons, the Court rules on the motions as stated in the summary beginning on the first page of this order.

IT IS SO ORDERED.