For the Northern District of California

technology of which it licenses to its customers, who in turn use those designs to build embedded memory cells.

Kilopass Tech., Inc. v. Sidense Corp., 738 F.3d 1302, 1317-18 (Fed. Cir. 2013).

II. The Patents-in-Suit

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In the present action, Kilopass accused Sidense of infringing U.S. Patent Nos. 6,940,751 ("the '751 patent'), 6,777,757 ("the '757 patent"), and 6,856,540 ("the '540 patent"). The patents-in-suit all generally relate to non-volatile memory devices and arrays of such devices. Docket No. 250-1, Hutchins Decl. Ex. 10 ¶ 10 (Neikirk Expert Report). The specifications for each of the patents-in-suit explain that previous NVM designs resulted in memory cells where "the cell size is relatively large." '751 Patent at 5:25-26; '757 Patent at 4:45; '540 Patent at 4:50. In contrast, the invention described in the patents "provides a much smaller cell size, thereby allowing a higher density." '751 Patent at 5:26-27; '757 Patent at 4:46-47; '540 Patent at 4:51-52.

The programmable memory cell disclosed in the patents is comprised of a transistor located at the cross point of a column bitline and a row wordline. See '751 Patent (Abstract).

Each transistor has a "gate" connected to [the] column bitline and a "source" connected to [the] row wordline. '751 patent col. 5 ll. 32-40. Opposite the source is a "drain" that is not connected to any bitlines or wordlines. Id. Beneath the gate is a substrate separated from the gate by a dielectric oxide. Id. col. 7 l. 17. The dielectric oxide is engineered to "break down" when a sufficient voltage is applied to the gate. *Id.* col. 7 Il. 14-16. If the gate oxide breaks down, a conductive link forms between the source and drain, allowing current to flow through the transistor. *Id.* col. 7 ll. 16-20. The flow of current indicates that the transistor is in a programmed state, while the absence of current flow indicates that it is in a non-programmed state. *Id.*

Kilopass, 738 F.3d at 1304.

Claim 1 of the '751 patent, which is representative of the patents-in-suit, claims the following (terms relevant to Sidense's motion in bold):

1. A programmable memory cell useful in a memory array having column bitlines and row wordlines, the memory cell comprising:

a transistor having a gate, a gate dielectric between the gate and over a substrate, and first and second doped semiconductor regions formed in said substrate adjacent said gate and in a spaced apart relationship to define a channel region therebetween and under said gate; and

wherein the second doped semiconductor region of the transistor is connected to one of said row wordlines, and wherein said gate dielectric is formed such that the gate

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dielectric is more susceptible to breakdown near the first doped semiconductor region than said second doped semiconductor region.

'751 Patent at 14:30-44 (emphasis added).

Two claim limitations are relevant to the present motion. First, all the asserted claims of the patents-in-suit require "the second doped region to be connected to a row wordline, but Sidense's 1T-Fuse product connects the second doped region to the column bitline." *Kilopass*, 738 F.3d at 1305 (citing Kilopass Tech., Inc. v. Sidense Corp., No. C 10-02066 SI, 2012 WL 3545286, at *7 (N.D. Cal. Aug. 16, 2012)). Second, all of the asserted claims of the patents-in-suit require "first and second doped semiconductor regions." "Sidense's 1T-Fuse cells, however, utilize a shallow trench isolation ('STI') region for the transistor drain instead of a first doped region." Id. (citing Kilopass, 2012 WL 3545286, at *10).

III. **Kilopass's Pre-Filing Investigation**

The following summary of Kilopass's pre-filing investigation is largely taken from the Federal Circuit's opinion in this matter. See Kilopass, 738 F.3d at 1305-07. In 2005, Kilopass's founder and an inventor on all three of the patents-in-suit, Jack Peng, reviewed an international patent application submitted by Sidense that was directed to protecting Sidense's competing 1T-Fuse memory cell. Mr. Peng believed that the 1T-Fuse was similar to Kilopass's patented cells, except that Sidense used a split gate implementation. Mr. Peng contacted a patent attorney, Mr. Chun Ng, at the law firm Perkins Coie to discuss potential infringement. In an e-mail to the Perkins attorney, Mr. Peng explained that "[Kilopass] did not file [a] dedicated patent for this split gate implementation" and that "we should [have] . . . a long time ago even though we were very busy." Docket No. 420-1, Durie Decl. Ex. 24 at A10576, A10580. According to Peng, it was not a priority to Kilopass at that time because Sidense's "split gate [memory cell] is not self-aligned, so their practical cell size will be larger than [Kilopass's] 1.5T cell." *Id.* at A10576.

The Perkins counsel nonetheless believed that there was a sufficient basis to challenge Sidense with infringement contentions "in a friendly way . . . to see what their reaction is." Docket No. 420-1, Durie Decl. Ex. 24 at A10578 ("[W]e have pretty broad claims that I believe would cover any single

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poly gate oxide breakdown memory."). On November 28, 2005, the Perkins counsel sent a letter to Sidense advising that it "should be interested in obtaining a license to Kilopass' [s] patents" or otherwise "provide [Kilopass] with an explanation of how these products avoid the claims" of the patents-in-suit, inter alia. Docket No. 420-1, Durie Decl. Ex. 23 at A10583-86.

Sidense responded on January 20, 2006, stating: "[I]t is our opinion that no products produced by Sidense, nor their methods of operation, fall within the scope of the claims." Docket No. 420-1, Durie Decl. Ex. 23 at A10590. Specifically, Sidense noted:

[The independent claims of the '751 patent and '757 patent] each require that the transistor have (1) first and second doped semiconductor regions formed in the substrate adjacent the gate; and (2) a second doped semiconductor region connected to the row wordline.... Such elements are not present in Sidense's memory cell transistors. For at least these reasons, . . . we do not believe any license of these patents is necessary.

Id. (emphases added). Sidense also proposed that it was "prepared to consider a third-party examination, on a confidential basis" to confirm whether Sidense's products infringed, "provided [Kilopass] agreed to pay the costs of same and to be bound by any findings in this regard." *Id.* at A10593.

After reviewing Sidense's response, the Perkins counsel sent the following e-mail to Peng and Kilopass's CEO on January 20, 2006:

Here is my report on Sidense's response to our charge of infringement.

I still believe given our knowledge of Sidense's technology, that they infringe our patents. Please keep in mind that I am assuming that their memory design is the same as detailed in their patent application . . . Note that it is possible that Sidense may have changed their memory design to be different from what is shown in their patent application....

. . . In speaking with Jack [Peng] earlier today, we speculated that Sidense may have eliminated the first doped region (112 in Figure 4) and replaced it with a shallow trench isolation [STI] of some sort. . . . [I]f in fact they have eliminated the first dope region (112), then they would NOT infringe our claims literally. If that is the case, then we would have to go through a "reissue" proceeding in the patent office that may take 2 years in order to modify our claims to include the situation where there is no first doped region.

. . .

The most crucial bit of information we need to find out is the design of their memory cell. We have been ... assuming that their patent application shows their memory cell. This is not always the case and it would be good if we could find out

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definitively how their memory cell is constructed. I still feel strongly about our case if they are using the memory cell described in their patent application.

Docket No. 420-1, Durie Decl. Ex. 23 at A10600-02 (emphasis in original). "That e-mail made clear that: (1) the analysis by Perkins counsel up to that point had been based on the assumption that the design of Sidense's 1T-Fuse cell was the same as the cell described in Sidense's international patent application; and (2) if that assumption was incorrect and Sidense had in fact replaced the first doped region (i.e., the drain) with an STI region, then Sidense 'would NOT infringe [the] claims literally."2 *Kilopass*, 738 F.3d at 1306 (quoting *id.* at A10601).

In June 2007, a Kilopass employee obtained a diagram of Sidense's 1T-Fuse cell at a presentation, which confirmed that Sidense had replaced the drain with an STI. The Perkins counsel then sent the following e-mail to Kilopass officials: "My preliminary review of all the Sidense materials indicates that they have redesigned their memory cell to avoid infringement of our patents. Or at least make our case much tougher." Docket No. 420-1, Durie Decl. Ex. 24 at A10604 (emphasis added). Counsel also noted that Sidense employed an opposite wordline and bitline configuration, viz., the gate of each transistor was connected to a row wordline and the source was connected to a column bitline. Id. Counsel stated that he was "not so worried about the interchange of the bit line and word line," but that he was "more worried about the fact that [Sidense's cell] uses an [STI] on one side of the gate and not a [drain]." Id.

"Despite that advice from its Perkins patent counsel that Sidense did 'NOT infringe [the] claims literally,' and that Kilopass's case was 'much tougher,' Kilopass retained the law firm of Morrison Foerster ("MoFo") to conduct another analysis." Kilopass, 738 F.3d at 1306. On March 19, 2008, counsel from MoFo, Mr. Shane Brun, e-mailed Kilopass's CEO the following:

As we mentioned during the meeting, assuming Sidense's NVM product uses . . . [an] STI region[] (as opposed to two N+ regions) to define the channel below the gate . . . , Kilopass appears to have a valid claim that Sidense's NVM product is at least "equivalent" to the invention claimed by claim 1 of Kilopass's '751 patent, and therefore that Sidense infringes that patent.

As we also discussed, the next step is for us to conduct a more detailed investigation and analysis to confirm our initial impressions, which you asked us to complete before your April 2nd meeting with Kilopass's Board.

² In addition, despite the Perkins counsel's advice that Kilopass institute reissue proceedings, Kilopass never sought a reissue of the patents-in-suit.

Docket No. 420-1, Durie Decl. Ex. 28 at A11487 (emphases added). MoFo estimated that this "more detailed investigation" would take approximately 30-35 hours at a cost of approximately \$17,250-\$20,125 and would be completed by Friday, March 28th. *Id*.

MoFo then immediately began its "more detailed investigation" in order to meet Kilopass's deadline. However, eight days later, on March 27, 2008, Kilopass instructed MoFo to stop all work on the project. *See* Docket No. 420-1, Durie Decl. Ex. 28 at A11490. The reason is unclear, but MoFo subsequently sent Kilopass an invoice for 44 hours of work at a cost of \$20,125 "relating to Kilopass's investigation of potential infringement claims against Sidense." *Id.* at A11490. The invoice was accompanied by "a preliminary infringement chart for the '751 patent reflecting [MoFo's] analysis." *Id.*

The infringement chart provided an analysis concerning the doctrine of equivalents and concluded that "Kilopass appears to have a reasonable argument that Sidense's field oxide region is equivalent to the doped region in claim 1 of the '751 patent, and therefore satisfies this limitation." Docket No. 420-1, Durie Decl. Ex. 28 at A11497. "[I]n the context of claim 1 of the '751 patent, the field oxide region performs the same function and achieves the same result as the first doped region of claim 1 (i.e., it is positioned in the same location and *serves as a channel stop* to define the channel region below the gate) in arguably the same way (by not carrying any current)." *Id.* at A11500 (emphasis added). With regard to literal infringement, the MoFo counsel opined:

[I]f "doped region" is defined as an area on the semiconductor where the electrical properties have been changed, it may be difficult to argue that the field oxide region is a doped region If, however, "doped region" could reasonably be defined more broadly as simply an area to which a dopant is applied, then we may be able to argue that the field oxide region is a "doped region." Determining the potential viability of this argument will require additional investigation, technical feedback from Kilopass and possibly input from an independent expert.

Id. at A11497.

"Although MoFo's preliminary infringement chart opined favorably to Kilopass regarding the doctrine of equivalents, there is no evidence in the record that MoFo's analysis was complete at that time, nor is there any evidence that Kilopass considered MoFo's preliminary infringement chart in deciding to bring suit against Sidense." *Kilopass*, 738 F.3d at 1307. Moreover, there is no evidence in

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the record showing that Kilopass informed MoFo about the Perkins counsel's prior analysis or Mr. Peng's prior statements about the size differences between Sidense's memory cells and Kilopass's memory cells. "Kilopass retained MoFo to conduct an infringement analysis but terminated that relationship only eight days later. It does not appear that Kilopass was aware of how much work MoFo had done up to that point or that MoFo was even in the process of completing an infringement chart. In other words, it appears that Kilopass officials had already set their mind prior to learning of MoFo's infringement analysis." Id.

In October 2008, Kilopass hired a new CEO, Charlie Cheng. In a presentation on October 7, 2008 to the Kilopass board of directors, Mr. Cheng listed as a plan for October Q4: "Get ready to sue Sidense." Docket No. 417-6, Tadlock Decl. Ex. 3 at A10626. In another presentation to the Kilopass Board, Mr. Cheng noted that for Kilopass to grow it would need to "Take out Sidense." *Id.* at A10671. Also in 2008, Kilopass performed a "Competitor Analysis" of Sidense's memory cell. Docket No. 366, Tadlock Decl. Ex. 12 at 1. The analysis stated that Sidense's memory cell array was "much larger (2X)" than a comparable Kilopass memory cell array. *Id*.

In 2009, a team of engineers led by Kilopass's CTO, Dr. Luan, sent an exemplary Sidense memory device to a third-party for reverse-engineering. After receiving the results, the CTO created a slide presentation for a meeting of Kilopass's board noting that Kilopass had retained the law firm SNR Denton ("Denton") to investigate potential infringement against Sidense. The CTO also stated that the Denton "[a]ttorneys don't have a conclusion yet as to the reading of 1st doped region and STI region" and that their "formal analysis [was] in progress." Docket No. 420-1, Durie Decl. Ex. 27 at A11296. However, in the CTO's opinion, "[f]rom an engineer's perspective," Sidense infringed Kilopass's patents under the doctrine of equivalents. *Id.*

24 IV. **Procedural History**

On May 14, 2010, Kilopass filed the present action against Sidense asserting infringement of

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the '751 patent.' Docket No. 1. On June 18, 2010, Kilopass filed a first amended complaint adding allegations of infringement of the '757 and '540 patents. Docket No. 6. On October 14, 2010, Kilopass filed a second amended complaint. Docket No. 38. On December 13, 2010, the Court granted in part and denied in part Sidense's motion to dismiss the second amended complaint, leaving six causes of action in the case: three patent infringement claims asserting infringement of the '751, '757, and '540 patents, one false advertisement and disparagement claim, one intentional interference with prospective economic relations claim, and one unfair competition claim. Docket No. 50; see also Docket No. 234 (Third Amended Complaint).

In its infringement contentions, Kilopass accused Sidense of infringing claims 1, 3, 5, 6, 9, 12, and 14 of the '751 patent, claims 1, 2, 5, 7, 8, 13, and 14 of the '757 patent, and claims 1, 3, 5, and 6 of the '540 patent. Docket No. 420, Durie Decl. Ex. 12 at A6308. Kilopass's infringement contentions included allegations of both literal infringement and infringement under the doctrine of equivalents. *Id.* at A6307. With respect to the "column bitlines and row wordlines" claim limitation, the contentions asserted that the accused products merely "switch[] the terms 'wordlines' and 'bitlines' to create an artificial distinction. Columns and rows are a matter of perspective only." *Id.* at A6311. With respect to the "first and second doped semiconductor region" claim limitation, the contentions asserted the "channel stop" theory of infringement that was contained in Morrison & Foerster's preliminary analysis. Kilopass asserted that "the STI is the equivalent of the first doped region. The function of the first doped region is to provide a channel stop. The way it functions is to prevent current from the channel to flow in the area of the STI. The result is that the end of the channel is defined. Sidense's STI performs substantially the same function, functions in substantially the same way, and achieves the [sic] substantially the same result." *Id.* at A6313. Kilopass also asserted that the first doped semiconductor region limitation was literally present in the accused device because the device's Shallow Trench Isolation ("STI") "is literally a first doped region forming the channel stop." *Id.*

The Court held a claim construction hearing on August 1 and 2, 2011. Kilopass originally

³ In 2011, Kilopass sent letters and emails to several Sidense customers informing them of the lawsuit and requesting that they obtain a license to Kilopass's patents. Docket No. 417-18, Tadlock Decl. Ex. 14.

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argued at the claim construction stage that wordlines and bitlines are interchangeable terms. See Docket No. 113 at 6 ("[O]ne of ordinary skill in the art would understand that the current flows can be detected in both the bitline and the wordline, again showing the interchangeability of the two, and with the naming of 'bitline' or 'wordline' being simply a matter of perspective."). As interchangeable terms, Kilopass proposed they be defined identically as "a line that connects to one terminal of each memory cell in a memory array." *Id.* at 5, 6.

On August 31, 2011, the Court issued a claim construction order construing disputed terms from the '751, '757, and '540 patents. Docket No. 147. The Court did not adopt Kilopass's proposed construction for the terms "bitline" and "wordline," but largely found in its favor. The Court noted that wordlines and bitlines always appeared orthogonal to one another in a memory array, and thus the Court declined to "define two different terms to mean precisely the same thing when they are not identical." *Id.* at 9. However, the Court limited the differences between bitlines and wordlines to their positions in relation to one another: the Court defined the term "bitline/column bitline" as "a line orthogonal to the row wordline that connects to a terminal of each memory cell in a memory array," and the term "wordline/row wordline" as "a line orthogonal to the column bitline that connects to a terminal of each memory cell in a memory array." Id.

Concurrent with this litigation, on December 7, 2010, Sidense filed with the United States Patent & Trademark Office ("PTO") requests for inter partes reexamination of Kilopass's patents-in-suit. Sidense argued to the PTO that Kilopass's '751 patent was anticipated by an earlier patent, Tanaka et al. (U.S. Patent No. 5,331,181) ("Tanaka"). In Tanaka, unlike Kilopass's '751 patent but like Sidense's memory cell, the doped semiconductor region is connected to a bitline. The patent examiner in the PTO proceeding issued an Action Closing Prosecution and ruled that Kilopass overcame Tanaka because "it is well known to one of ordinary skill in the art at the time of the invention that the bitlines and wordlines have a distinct functional effect on the operation of memory devices and thus are not interchangeable." See Docket No. 207-5, Khaliq Decl., Ex. 4 at 6 (Feb. 18, 2011 USPTO Office Action). After Sidense appealed that decision to the PTO's Board of Patent Appeals and Interferences (the "BPAI"), Kilopass filed a brief explicitly agreeing with the Patent Examiner's finding:

With respect to claims 5 and 11, the Patent Owner agrees with the Examiner that Tanaka

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does not show a gate formed from a column bit line. As can been seen [sic] in Figure 2(b) of Tanaka, the gates of the transistors are coupled to row wordlines. Therefore claims 5 and 11 are not anticipated by Tanaka.

Docket No. 192-3, Hutchins Decl. Ex. 7 at 8 (Kilopass's Jan. 6, 2012 BPAI Brief).

The position Kilopass took before the BPAI was clearly irreconcilable with its "interchangeability" position that it took before this Court. In a May 1, 2012 Order, the Court found that by taking the contrary position it did before the BPAI, Kilopass clearly and unmistakably disavowed claim scope where the gates of the transistors are connected to row wordlines. 4 See Docket No. 224 at 8-11 (citing Computer Docking Station Corp. v. Dell, Inc., 519 F.3d 1366, 1374 (Fed. Cir. 2008) (noting that a patentee can disavow claim scope "by clearly characterizing the invention in a way to try to overcome rejections based on prior art"); Spectrum Intern., Inc. v. Sterilite Corp., 164 F.3d 1372, 1379 (Fed. Cir. 1998) ("Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.")). On May 15, 2012, Kilopass filed a motion for leave to file a motion for reconsideration of the Court's order finding disavowal of claim scope. Docket No. 228. Kilopass sought reconsideration based on a supplemental statement it filed with the PTO on May 2, 2012 stating that it made an error in its statement agreeing with the PTO Examiner and that the terms bitline and wordline are interchangeable. *Id.* at 5-11. On May 24, 2012, the Court denied Kilopass's motion for leave to file a motion for reconsideration. Docket No. 235. In denying the motion, the Court stated:

The Court finds that [Local Rule 7-9(b)(2)] does not apply where the "new material fact" is merely a party's attempt to undo a strategic position for which it has been penalized. It was in Kilopass's interest to argue that wordlines are different from bitlines in its BPAI brief; however, after that position damaged its case in this Court, Kilopass sought to reverse its position before the BPAI. Moreover, Kilopass vigorously opposed Sidense's motion for estoppel and claim disavowal that brought Kilopass's incongruous position to the attention of the Court. Nowhere in its opposition did Kilopass suggest that it made a mistake in the BPAI brief. See Kilopass's Opp. to Sidense's Mot. for Recon., Dkt. 207. Instead, Kilopass argued that its "position at the PTO was fully consistent with its earlier position" and that it "did not persuade the Court to adopt a claim construction position that would create a risk of inconsistent judicial rulings." *Id.* at 6-9. Only after the Court found that Kilopass adopted inconsistent positions and disavowed claim scope, did Kilopass re-characterize its BPAI position as error and file a submission with the USPTO to "correct an error made without deceptive intent." See

⁴ In its briefing on this issue, Kilopass argued that its position at the PTO was fully consistent with its earlier position during claim construction and that its "positions have been grossly and purposefully mischaracterized." Docket No. 207 at 6-8.

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dkt. 228-7. This type of gamesmanship is not the purpose for which Civil Local Rule 7-9 allows for reconsideration.

Id. at 5-6.

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On August 16, 2012, the Court granted Sidense's motion for summary judgment of noninfringement of the patents-in-suit. Docket No. 272. In the order, the Court found that there was no genuine issue of material fact that Sidense's technology does not satisfy (1) the "row wordlines" connected to the "second doped semiconductor region" claim limitation; (2) the "first doped semiconductor region" claim limitation; and (3) the "spaced apart relationship" claim limitation. See id. at 7-17. With respect to the "row wordlines" connected to the "second doped semiconductor region" claim limitation, the Court noted that it was undisputed that Sidense's technology has a row wordline connected to the gate and a column bitline connected to the second doped semiconductor region, the opposite configuration of the patents-in-suit. *Id.* at 7-8. Moreover, Kilopass had disavowed claim scope for transistors with gates connected to wordlines. Id. at 10. In addition, the Court rejected Kilopass's attempt to introduce a new theory of infringement, defining the term bitlines as simply lines that provide higher voltage. *Id.* at 10-11. With respect to the "first doped semiconductor region" claim limitation, the Court noted that the parties agreed that Sidense's memory cell has only one doped "semiconductor region," the "second doped semiconductor region." *Id.* at 11. "The parties also agree that Sidense does not have a 'first doped semiconductor region' and thus this limitation is not literally infringed." *Id.* The Court then rejected Kilopass's argument that the STI contained in Sidense's memory cells is the equivalent of a first doped semiconductor region. First, the Court noted that Kilopass had impermissibly "amended its infringement contentions with respect to the doctrine of equivalents far past the applicable deadlines without Court approval." Id. at 12. In its April 4, 2011 infringement contentions, Kilopass asserted the "channel stop" theory of equivalency, arguing that the function of the first doped region is to provide a channel stop and that it does this by preventing current from the channel to flow in the area of the STI. *Id.* But, on April 13, 2012, Kilopass filed its expert report on infringement by Dr. Neikirk, asserting a different equivalency theory. In the report Dr. Neikirk asserted:

⁵ The Court noted that: "Kilopass's assertion of a new theory of equivalence is particularly inappropriate in light of evidence that Kilopass has known for many years that Sidense does not literally infringe its patents." Docket No. 272 at 13 n.8.

[T]he function of the first and second regions is clearly stated: to geometrically delineate or define a channel region between them. . . . The way in which each region functions to geometrically delineate or define a channel region is by being separated from each other in a cross section of the device, by being in the substrate, and by being adjacent to the gate. . . . The result produced by the two regions required by this claim limitation is to create or delineate a defined region of the device that is a channel region.

Docket No. 420-1, Durie Decl. Ex. 13 at A6070, ¶¶ 62-64. "This equivalence theory focuses on the geometry of the cell, rather than the electrical properties of the 'channel stop." Docket No. 272 at 13. Because Kilopass had failed to properly amend its infringement contentions to include this new theory of equivalency, summary judgment of this limitation was appropriate. *Id.* In addition, the Court rejected Kilopass's new equivalency theory on the merits. The Court found that Kilopass had provided no evidence showing that insulators are the equivalent of semiconductors. *Id.* at 14 ("The uncontroverted evidence demonstrates that there is a non-trivial difference between insulators and semiconductors."). The Court also noted that the patents-in-suit's use of a first doped semiconductor rather than an STI, renders the memory cells smaller. *Id.* This represented a non-insubstantial difference between the patents-in-suit and the accused technology, and it also meant that the accused technology did not achieve the same results as the patents-in-suit. *Id.* at 14-15.

On October 2, 2012, the Court granted Kilopass's motion to dismiss its remaining claims for false advertising, intentional interference with prospective economic relations, and unfair competition with prejudice, and the Court entered judgment in the action. Docket Nos. 327, 328. Kilopass appealed the Court's order granting Sidense's motion for summary judgment of non-infringement. Docket No. 330. On April 10, 2013, the Federal Circuit summarily affirmed the Court's order granting Sidense's motion for summary judgment. *Kilopass Tech., Inc. v. Sidense Corp.*, 501 Fed. Appx. 980 (Fed. Cir. 2013).

While that appeal was pending, the parties filed cross-motions for attorney's fees. Kilopass moved for sanctions and attorney's fees under 28 U.S.C. § 1927. Docket No. 337. Sidense moved for attorney's fees under 35 U.S.C. § 285 of the Patent Act and 15 U.S.C. § 1117(a) of the Lanham Act. Docket No. 339. On December 18, 2012, the Court denied the parties' motions for attorney's fees. Docket No. 370. With respect to Sidense's request for attorney's fees under 35 U.S.C. § 285, the Court held that "Sidense ha[d] not met its burden of establishing with 'clear and convincing evidence' that

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Kilopass brought or maintained the prosecution of its patent infringement in bad faith." Id. at 5 (citing MarcTec, LLC v. Johnson & Johnson, 664 F.3d 907, 916 (Fed. Cir. 2012) ("Absent litigation misconduct or misconduct in securing the patent, a district court can award attorney fees under § 285 only if the litigation is both: (1) brought in subjective bad faith; and (2) objectively baseless.")).

Sidense appealed the Court's denial of attorney's fees under 35 U.S.C. § 285. Docket No. 372. On December 26, 2013, the Federal Circuit vacated the Court's order denying Sidense's motion for attorney's fees. Kilopass, 738 F.3d at 1317-18. In the order, the Federal Circuit explained that a determination of whether the patentee acted in subjective bad faith must take into account the totality of the circumstances and does not require a showing that the patentee had actual knowledge that its claims are baseless. See id. at 1309-12. The Federal Circuit also explained that "[o]bjective baselessness alone can create a sufficient inference of bad faith to establish exceptionality under § 285, unless the circumstances as a whole show a lack of recklessness on the patentee's part." *Id.* at 1314. Accordingly, the Federal Circuit remanded the action for this Court to consider "whether Kilopass's doctrine of equivalents theory was objectively baseless, and then, whether the totality of the circumstances demonstrates that Kilopass acted with subjective bad faith. If the district court determines that the case is exceptional after applying the correct legal standards, it should then determine, in its discretion, whether to award attorneys' fees under § 285." Id. at 1317.

After the case was remanded, on April 29, 2014, the Supreme Court issued its decision in Octane Fitness, LLC v. ICON Health & Fitness, Inc., 134 S. Ct. 1749 (2014), setting forth the standard for determining whether a case is "exceptional" under 35 U.S.C. § 285. By the present motion, Sidense renews its motion for attorney's fees pursuant to 35 U.S.C. § 285. Docket No. 417.

LEGAL STANDARD

"Section 285 of the Patent Act authorizes a district court to award attorney's fees in patent litigation." Octane Fitness, 134 S. Ct. at 1752. Section 285 provides: "The court in exceptional cases may award reasonable attorney fees to the prevailing party." 35 U. S. C. § 285. "When deciding whether to award attorney fees under § 285, a district court engages in a two-step inquiry." *MarcTec*, LLC v. Johnson & Johnson, 664 F.3d 907, 915 (Fed. Cir. 2012). First, the court must determine whether

the prevailing party has proven that the case is exceptional. *Id.* "If the district court finds that the case is exceptional, it must then determine whether an award of attorney fees is justified." *Id.* at 916 (citing Cybor Corp. v. Fas Techs. Inc., 138 F.3d 1448, 1460 (Fed. Cir. 1998) (en banc)).

In *Octane Fitness*, the Supreme Court held that "an 'exceptional' case is simply one that stands out from others with respect to the substantive strength of a party's litigating position (considering both the governing law and the facts of the case) or the unreasonable manner in which the case was litigated." Octane Fitness, 134 S. Ct. at 1756 (stating that "exceptional" means "uncommon," "rare," or "not ordinary"). "District courts may determine whether a case is 'exceptional' in the case-by-case exercise of their discretion, considering the totality of the circumstances." Id. In determining whether to award fees, district courts may consider a nonexclusive list of factors, including frivolousness, motivation, objective unreasonableness (both in the factual and legal components of the case) and the need in particular circumstances to advance considerations of compensation and deterrence. *Id.* at 1756 n.6. "[A] case presenting either subjective bad faith or exceptionally meritless claims may sufficiently set itself apart from mine-run cases to warrant a fee award." Id. at 1757. There is no precise rule or formula for determining whether to award attorney's fees, but instead equitable discretion should be exercised in light of the above considerations. *Id.* at 1756.

Entitlement to fees under § 285 must be shown by a preponderance of the evidence. See Octane Fitness, 134 S. Ct. at 1758. A district court's determination of whether to award attorney's fees under 35 U.S.C. § 285 is reviewed for abuse of discretion. Highmark Inc. v. Allcare Health Mgmt. Sys., 134 S. Ct. 1744, 1749 (2014).

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DISCUSSION

I. Whether the Case is Exceptional

After consideration of the totality of the circumstances in this action, the Court concludes that the present action is "one that stands out from others" with respect to both the substantive strength of Kilopass's litigating position and the unreasonable manner in which the case was litigated. Thus, the Court, exercising its sound discretion, finds that the present action is an "exceptional" case under 35 U.S.C. § 285. See Octane Fitness, 134 S. Ct. at 1756.

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A. Kilopass's Claims for Literal Infringement of the Patents-In-Suit⁶

As an initial matter, the Court notes that in its infringement contentions, Kilopass asserted both literal infringement and infringement under the doctrine of equivalents of the patents-in-suit. Kilopass did this despite the fact that it had no reasonable basis for accusing Sidense of literal infringement. To the contrary, Kilopass was advised by the Perkins counsel in 2006 that if Sidense had eliminated the first doped region and replaced it with an STI, then Sidense's technology "would NOT infringe [Kilopass's] claims literally." Docket No. 420-1, Durie Decl. Ex. 23 at A10600-02. By at least early 2008, Kilopass was able to confirm that Sidense had in fact replaced the drain with an STI, meaning that it did not literally infringe the patents-in-suit. See id. Ex. 24 at A10604-05. MoFo speculated that it might be able to present a reasonable argument that the first doped region was literally present in Sidense's technology. However, MoFo cautioned Kilopass that to properly assess the potential viability of this argument it needed to engage in an additional investigation, obtain technical feedback from Kilopass, and potentially obtain input from an independent expert. Docket No. 420-1, Durie Decl. Ex. 28 at A11497. Kilopass instructed MoFo to stop all work before this additional investigation was performed. Accordingly, Kilopass proceeded with claims for literal infringement in this action despite the fact that one counsel had instructed Kilopass that there was no literal infringement and a different counsel had only speculated that there may be literal infringement, but stated that further research needed to be performed. Indeed, the objective baselessness of Kilopass's claims for literal infringement is supported

⁶ At the hearing, Kilopass argued that it is improper for the Court to consider Kilopass's assertion of literal infringement of the patents-in-suit because its literal infringement claims do not serve as the basis for Sidense's motion for attorney's fees, and Sidense has not attempted to show that it suffered any separate harm specifically due to the literal infringement claims. The Court disagrees. The Supreme Court has instructed that in determining whether a case is "exceptional" under § 285, a district court should consider the totality of the circumstances. *Octane Fitness*, 134 S. Ct. at 1756. One of the circumstances in this case is that Kilopass asserted both claims for literal infringement and infringement under the doctrine of equivalents. Moreover, the strength or weakness of Kilopass's claims for literal infringement is evidence as to whether Kilopass litigated the present action in an unreasonable manner.

⁷ Prior to filing the lawsuit, Kilopass's CTO also provided an analysis of whether Sidense's technology literally infringed the '751 patent. Docket No. 420-1, Durie Decl. Ex. 27 at A11296. Aside from the fact that he is not an attorney and his analysis was from "an engineer's perspective," *id.*, the CTO does not appear to have concluded in his analysis that there was literal infringement. In the analysis, the CTO only states what his arguments concerning literal infringement would be, but does not opine as to the meritoriousness of these arguments. Further, in the summary section of his analysis, he only opines that there is "at least equivalent" infringement of the '751 patent. *Id.*

by the fact that by the time the action reached the summary judgment stage, Kilopass dropped its assertion of literal infringement and agreed that the accused product does not literally infringe the patents-in-suit because it does not possess a "first doped semiconductor region." Docket No. 272 at 11. The Court recognizes that valid infringement claims may be asserted under either a theory of literal infringement or a theory of infringement under the doctrine of equivalents. See Schumer v. Lab. Computer Sys., 308 F.3d 1304, 1314 n.7 (Fed. Cir. 2002) (explaining that infringement may occur under the doctrine of equivalents even when it has been found that there is no literal infringement). But, the fact that Kilopass asserted entirely baseless claims of literal infringement in this action is evidence that it litigated this action in an unreasonable manner.

In addition, with respect to the claim limitation requiring that the second doped region be connected to a row wordline, the Court notes that Kilopass had a reasonable argument at the outset of the case that this limitation was literally present in Sidense's technology. Kilopass's argument relied on it obtaining favorable constructions from the Court for the terms "wordline" and "bitline," and it succeeded in doing so. See Docket No. 147 at 9. However, Kilopass then proceeded to take a position before the BPAI that was clearly irreconcilable with the "interchangeability" position it took before this Court during claim construction. See Docket No. 192-3, Hutchins Decl. Ex. 7 at 8; Docket No. 224 at 8-11. In its opposition to the present motion, Kilopass argues that this statement was a mistake and was the result of the fact that the protective order in this case prevented litigation counsel from coordinating with reexamination counsel. Docket No. 420 at 10, 16. However, the Court has already rejected Kilopass's argument that the statement to the BPAI was a mistake. In its opposition to Sidense's motion for disclaimer, Kilopass did not argue that the statement was a mistake. Rather, Kilopass argued that its position before the BPAI was fully consistent with its earlier position before this Court during claim construction and that its "positions have been grossly and purposefully mischaracterized." Docket No.

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⁸ Kilopass's infringement expert, Dr. Neikerk, stated during his deposition that none of the asserted claims were infringed literally. Docket No. 417-11, Tadlock Decl. Ex. 8 at 25:9-19, 25:23-26:12.

⁹ The Court notes that in its opposition to the present motion for attorney's fees, Kilopass appears to concede that the position it took before the BPAI was contrary to the position it took before this Court. Docket No. 420 at 10.

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207 at 6-8. It was only after the Court entered its order finding a disavowal of claim scope on May 1, 2012 that Kilopass began to claim that the prior statement was a mistake and attempted to correct its error before the BPAI. See Docket No. 228 at 5-11; Docket No. 228-7, Khaliq Decl. Ex. E. Moreover, the Court notes that Kilopass's present argument – blaming the alleged mistake on the inability of litigation counsel and reexamination counsel to coordinate with each other due to the protective order - was not contained in either Kilopass's motion for leave to file a motion for reconsideration of the Court's disclaimer order or Kilopass's reply brief in support of that motion. See Docket Nos. 228, 233. The present argument is brand new. Thus, Kilopass's assertion that the prior statement was a mistake resulting from the protective order in this case is simply not credible. Moreover, as the Court noted in its order denying Kilopass's motion for leave to file a motion for reconsideration, Kilopass's attempt to argue one thing to this Court, then argue a different thing to the BPAI, and then attempt to change its position before the BPAI only after it resulted in an unfavorable ruling from this Court amounts to "gamesmanship." Docket No. 235 at 6. The gamesmanship that Kilopass engaged in with respect to this claim limitation is also evidence showing that it has litigated this action in an unreasonable manner.10

В. Kilopass's Claim for Infringement of the Patents-In-Suit Under the Doctrine of **Equivalents**

A review of the record also demonstrates that Kilopass never had a legitimate basis for asserting that Sidense infringed the patents-in-suit under the doctrine of equivalents.

The doctrine of equivalents holds that even if an accused product does not literally infringe the asserted claims of a patent, the product may infringe if the differences between the element of the accused product at issue and the claim limitation at issue are insubstantial. Dawn Equip. Co. v. Kentucky Farms, Inc., 140 F.3d 1009, 1015-16 (Fed. Cir. 1998). Whether equivalency exists may be determined based on the "insubstantial differences" test or based on the "function-way-result" test,

¹⁰ The Court also notes that at the summary judgment stage, Kilopass attempted to present a new theory of infringement with respect to this claim limitation that improperly attempted to redefine the term "bitline" and would have rendered the Court's May 1, 2012 disavowal order meaningless. Docket No. 272 at 10-11.

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which asks whether the element of the accused device "performs substantially the same function in substantially the same way to obtain the same result." *TIP Systems, LLC v. Phillips & Brooks/Gladwin, Inc.*, 529 F.3d 1364, 1376 (Fed. Cir. 2008) (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 38-40 (1997)). "The essential inquiry is whether 'the accused product or process contain[s] elements identical or equivalent to each claimed element of the patented invention[.]" *Id.* at 1367-77.

The Court first notes that there is no evidence in the record showing that the Perkins counsel ever engaged in any analysis to determine whether Sidense's technology infringed the patents-in-suit under the doctrine of equivalents. The only conclusions that the Perkins counsel appeared to reach was that Sidense's technology did not literally infringe the patents-in-suit and that Kilopass should seek a reissue of the patents. *See* Docket No. 420-1, Durie Decl. Ex. 23 at A10600-02, Ex. 24 at A10604-05. Therefore, the Perkins counsel did not provide Kilopass with any advice upon which it could have reasonably relied to assert that Sidense infringed the patents-in-suit under the doctrine of equivalents.

Kilopass argues that it is entitled to rely on MoFo's infringement analysis opining that Sidense's technology infringed the patents-in-suit under the doctrine of equivalents. Docket No. 420 at 21-22. But, there is no evidence in the record showing that MoFo's analysis was complete at the time Kilopass instructed MoFo to stop all work, nor is there any evidence that Kilopass considered MoFo's preliminary infringement chart in deciding to bring suit against Sidense. See Kilopass, 738 F.3d at 1307. Kilopass argues that there is no evidence in the record showing that MoFo did not complete its work and its infringement analysis. Docket No. 420 at 7, 21-22. But, this is simply not true. That Kilopass had to tell MoFo to stop working is evidence showing that, at that time, MoFo was continuing to perform work and had not completed its analysis. If MoFo had finished its work, then there would have been no need for Kilopass to instruct them to stop working. Further, the record shows Kilopass instructed MoFo to stop work on March 27, 2008 even though MoFo had estimated that its analysis would not be completed until the next day, March 28, 2008. See Docket No. 420-1, Durie Decl. Ex. 28 at A11487. Moreover, the Court notes that MoFo's billing records reflect that on March 27, 2008, the day Kilopass instructed MoFo to stop working, the attorneys were "[p]repar[ing] preliminary infringement analysis for Sidense's 1-1T [sic] fuse cell; [performing] research in support of same," and performing "[r]esearch regarding application of the doctrine of equivalents to patents for integrated

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circuits." Id. at A11493. Therefore, the billing record shows that not only was MoFo working on its infringement analysis when Kilopass instructed it to stop working, but it was performing research related to the potential application of the doctrine of equivalents—a critical issue in this case.

Kilopass also argues that there is no evidence showing that it withheld relevant evidence from MoFo. Docket No. 420 at 21. The Court disagrees. MoFo's infringement analysis does not show that it took into account the statements from Mr. Peng, the lead inventor on all three patents-in-suit, regarding the practical cell size difference between the patents-in-suit and Sidense's memory cells.¹¹ See Docket No. 420-1, Durie Decl. Ex. 24 at A10576 (stating that the reason why Kilopass did not implement Sidense's cell design "in our product, [is] because [Sidense's] split gate cell is not self-aligned, so their practical cell size will be larger than our 1.5T cell."). These statements would appear to be relevant to MoFo's doctrine of equivalents analysis, in determining whether there was a substantial difference between the limitation in patents-in-suit and the element in the accused technology and whether the relevant element of the accused technology achieved the same results as the relevant limitation in the patents-in-suit. Kilopass argued at the hearing that at the time MoFo performed its analysis, Kilopass and MoFo could not have known that Mr. Peng's statements about the size difference between the memory cells would become an important issue years later in the litigation. The Court disagrees. Both tests for determining infringement under the doctrine of equivalents revolve around the differences between the claimed invention and the accused product. The "insubstantial differences" test asks whether the differences between the elements at issue are insubstantial. See Voda v. Cordis Corp., 536 F.3d 1311, 1326 (Fed. Cir. 2008). The "function-way-result" test asks does the different element in the accused product perform substantially the same function in substantially the same way to obtain the same results as the claimed element. See TIP Systems, 529 F.3d at 1376. Therefore, to allow MoFo to properly perform this analysis, it should have been apprised of any potentially substantial differences between the accused product and the invention disclosed in the patents-in-suit, such as the difference in cell size.

In defense of MoFo's doctrine of equivalents analysis, Kilopass argues that there is nothing in

¹¹ The Court also notes that there is no evidence in the record showing that Kilopass provided MoFo with the Perkins counsel's prior analysis and opinions.

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the claims about cell size. This may be true, but there is language in the specifications distinguishing and criticizing the prior art by stating that "in each of the memory cells described above, the cell size is relatively large. The present invention provides a much smaller cell size, thereby allowing a higher density." '751 Patent at 5:23-26; '757 Patent at 4:45-47; '540 Patent at 4:49-52. "While it is true that not every advantage of the invention must appear in every claim, it would be peculiar for the claims to cover prior art that suffers from precisely the same problems that the specification focuses on solving." LizardTech, Inc. v. Earth Res. Mapping, Inc., 424 F.3d 1336, 1343-44 (Fed. Cir. 2005) (citation omitted); see also GE Lighting Solutions, LLC v. AgiLight, Inc., 750 F.3d 1304, 1309 (Fed. Cir. 2014) ("[W]e have used disclaimer to limit a claim element to a feature of the preferred embodiment when the specification described that feature as a 'very important feature . . . in an aspect of the present invention,' and disparaged alternatives to that feature."); CVI/Beta Ventures v. Tura LP, 112 F.3d 1146, 1160 (Fed. Cir. 1997) ("In construing claims, the problem the inventor was attempting to solve, as discerned from the specification and the prosecution history, is a relevant consideration."). Kilopass has never disputed the fact that the use of a "first doped semiconductor region" allows it to achieve higher density by combining the first doped semiconductor regions of adjacent cells rather than using STI regions. See Docket No. 272 at 14. As the Court noted in its order granting summary judgment of non-infringement: "In the nanometer world of memory cells, a feature allowing for higher density and smaller size is more than an ancillary benefit; it is one of the central purposes of the design. The use of the first doped semiconductor over an STI therefore represents more than an insubstantial difference." Id. at 15 ("the 'result' [of the first doped semiconductor region is] that it produces a higher density memory array"). Kilopass also argues that Sidense is wrong and reducing cell size is not the function of the first doped semiconductor region. Docket No. 420 at 18. But, this argument fails to consider that the "function" of the claimed limitation is only one part of the "function-way-results" test. Even assuming MoFo and Kilopass were correct and the "function" of the first doped semiconductor is to provide a channel stop—not to reduce the cell size—to prevail under the "function-way-results" test, Kilopass would still be required to show that the element in the accused product that performs this "function" obtains substantially the same "results." Kilopass never disputed that the use of an STI rather than a first doped semiconductor, results in a larger sized memory cell. See Docket No. 272 at 14.

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Moreover, the weakness of MoFo's theory of infringement is supported by the fact that by the time the action reached the expert discovery stage, Kilopass and its infringement expert were unwilling to rely on MoFo's "channel stop" theory of infringement and instead attempted to assert a new theory of infringement under the doctrine of equivalents. 12 Kilopass argues that the evolution of its theory of infringement as to the doctrine of equivalents does not show bad faith. Docket No. 420 at 23-24. The Court recognizes that a party may revise its theory of infringement in an action without acting in bad faith. See Medtronic Navigation, Inc. v. BrainLAB Medizinische Computersysteme GMBH, 603 F.3d 943, 955 (Fed. Cir. 2010) (finding no bad faith where the patentee revised its theory of infringement in light of the district court's claim construction ruling). But, here, Kilopass has not presented the Court with any legitimate reason for why it had to change its theory of infringement so late in the litigation and without following the proper procedures for seeking amendment of its contentions. Kilopass does not argue that the change was necessitated by the Court's claim construction order or its disavowal order or by the receipt of discovery that contained new nonpublic information about the accused technology. Instead, it simply appears that Kilopass, its infringement expert, or both did not like the theory of infringement that was contained in Kilopass's infringement contentions and decided to try a different theory at the expert discovery stage, hoping it would be better.

In conclusion, it was not reasonable for Kilopass to rely on the MoFo opinion because it was not complete and because Kilopass had failed to provide MoFo with all relevant facts allowing MoFo to perform a proper analysis. Moreover, the opinion was never confirmed by an independent technical

¹² In its opposition, Kilopass argues that the gist or thrust of Dr. Keikirk's doctrine of equivalents analysis is the same as MoFo's analysis. Docket No. 420 at 11, 23-24. The Court disagrees. The record shows that Dr. Neikirk's theory of infringement under the doctrine of equivalents was a new theory that differed from MoFo's theory of infringement. In their infringement analysis, the MoFo attorneys opined that the function of the first doped region was to "serve[] as a channel stop to define the channel regional below the gate." Docket No. 420-1, Durie Decl. at A11500. In contrast, Dr. Neikirk opined that the function of the first doped semiconductor region is "to geometrically delineate or define a channel region between [the first and second regions]." Docket No. 420-1, Durie Decl. Ex. 13 at A6070 ¶¶ 62-Moreover, Dr. Neikirk stated that his infringement analysis was not based on Kilopass's infringement contentions, which included MoFo's "channel stop" theory of infringement. Docket No. 417-11, Tadlock Decl. Ex. 8 at 27:3-5. Dr. Neikirk also stated that he had no opinion as to whether the first doped region functions as a channel stop and that it was not part of what he believed was the function of the first doped region, and stated that the first doped region only serves a structural function and that it does not serve any particular electrical function. See id. at 30:11-32:13, 34:12-35:4; Docket No. 421-3, Tadlock Decl. at 40:6-41:14.

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expert. 13 In addition, the opinion was objectively baseless because it did not take into account the size difference between the accused technology and the patents-in-suit.

Kilopass also argues that it was entitled to rely on the doctrine of equivalents analysis performed by its CTO, Dr. Luan. Docket No. 420 at 23. However, there is no evidence in the record showing that Kilopass's CTO was an attorney or properly understood the legal requirements for proving infringement under the doctrine of equivalents. Further, there is no evidence in the record showing that Kilopass's CTO ever showed his analysis to counsel to confirm whether his analysis and conclusion were correct.¹⁴ See Eon-Net LP v. Flagstar Bancorp, 653 F.3d 1314, 1329 (Fed. Cir. 2011) (explaining that a reasonable pre-suit investigation "requires *counsel* to perform an objective evaluation of the claim terms when reading those terms on the accused device" (emphasis added)). Indeed, Dr. Luan noted that his conclusions were from "an engineer's perspective." Docket No. 420-1, Durie Decl. Ex. 27 at A11296. Moreover, as Kilopass's CTO, Dr. Luan had a stake in the outcome, and, therefore, his analysis lacked objectivity. See Minnesota Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1580-81 (Fed. Cir. 1992) (finding infringement analysis was not objective where it was based in part on information obtained, not from an independent expert, but from a person "who had a stake in the outcome"). Kilopass notes that it did not rely on Dr. Luan's analysis alone, and it argues that its reliance on Dr. Luan's analysis in addition to MoFo's analysis shows that Kilopass had non-baseless claims with which it could proceed and shows that it was acting in good faith. But, there is no evidence in the record showing that Dr. Luan relied on or attempted to confirm MoFo's prior analysis when he performed his own analysis. Moreover, Dr. Luan's analysis differed from MoFo's prior analysis. The MoFo attorneys opined that the function of the first doped region was to "serve[] as a channel stop to

¹³ Kilopass asserts that the MoFo infringement analysis was later confirmed by the analysis that its CTO, Dr. Luan, performed. As Dr. Luan is a Kilopass employee, he is not an *independent* technical expert. In addition, there is no evidence in the record showing that Dr. Luan relied on or attempted to confirm MoFo's prior infringement analysis when he performed his own analysis.

¹⁴ Kilopass notes in its opposition that Dr. Luan stated in an email that "Mark's team [at the Denton law firm] is very comfortable with the reverse engineering work we did." Docket No. 42 at 8. However, in that same email, Dr. Luan notes that the law firm was still in the process of analyzing the claims of the patents-in-suit. Docket No. 420-1, Durie Decl. Ex. 27 at A11294. There is no evidence in the record showing that the law firm ever completed this analysis or evidence showing the conclusions of that analysis. Indeed, there is no evidence in the record showing the opinions and analysis of the Denton law firm prior to the initiation of the present action.

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define the channel regional below the gate." Docket No. 420-1, Durie Decl. At A11500. Nowhere in his analysis does Dr. Luan opine that the first doped region's function is to provide a channel stop. *See* Docket No. 420-1, Durie Decl. Ex. 27 at A11296.

In sum, during its pre-filing investigation and the present lawsuit, Kilopass relied on and presented three different theories of infringement under the doctrine of equivalents: MoFo's theory, Dr. Luan's theory, and Dr. Neikirk's theory. Kilopass argues that the gist of these theories is essentially the same. The Court disagrees. But, even assuming they are essentially the same, all three theories were objectively baseless because none of them took into account the size difference between the accused technology and the claimed invention. During the litigation, Kilopass never disputed that the use of a "first doped semiconductor region" allows it to achieve higher density by combining the first doped semiconductor regions of adjacent cells rather than using STI regions. See Docket No. 272 at 14. Yet, none of the infringement theories explained how it was possible that the resulting size difference could be considered only an insubstantial difference in light of the patents' criticism of the prior art and Mr. Peng's prior statements. In addition, none of the theories explained how the accused technology's STI obtained the same results as the patents-in-suit's first doped semiconductor region in light of the resulting difference in cell size. Accordingly, the Court concludes that Kilopass's claims for infringement under the doctrine of equivalents were objectively baseless, and that Kilopass did not have a reasonable basis for asserting that Sidense infringed the patents-in-suit under the doctrine of equivalents when it filed the present action.

C. Conclusion

In sum, Kilopass failed to conduct an adequate pre-filing investigation prior to filing the present action. Its pre-filing investigation essentially consisted of getting an opinion from one counsel that there was no literal infringement and getting an incomplete opinion from a different counsel as to infringement under the doctrine of equivalents. The theories of infringement that Kilopass asserted during the present action against Sidense were objectively baseless, and its claims for literal infringement were exceptionally meritless. Moreover, Kilopass litigated the present action in an unreasonable manner by failing to conduct an adequate pre-filing investigation, shifting its theories of

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infringement late in the litigation and without following the proper procedures for amendment of contentions, and engaging in conduct that at times amounted to gamesmanship. This is a case that stands out from others with respect to the substantive strength of plaintiff's litigating position and the unreasonable manner in which the case was litigated. Accordingly, based on the totality of the circumstances in the present action, the Court, exercising its sound discretion, concludes that the present action is an "exceptional" case under 35 U.S.C. § 285. 15 See Octane Fitness, 134 S. Ct. at 1756.

II. Whether the Court Should Award Attorney's Fees

Having found that the present action is an "exceptional" case under § 285, the Court must now "determine whether an award of attorney fees is justified." *MarcTec*, 664 F.3d at 916. "The decision whether or not to award fees is still committed to the discretion of the trial judge, and 'even an exceptional case does not require in all circumstances the award of attorney fees." Modine Mfg. Co. v. Allen Group, Inc., 917 F.2d 538, 543 (Fed. Cir. 1990). In determining whether to award attorney's fees, the trial judge may consider "the closeness of the case, the tactics of counsel, the conduct of the parties, and any other factors that may contribute to a fair allocation of the burdens of litigation as between winner and loser." S.C. Johnson & Son, Inc. v. Carter-Wallace, Inc., 781 F.2d 198, 201 (Fed. Cir. 1986).

As explained above, Kilopass asserted infringement claims that were objectively baseless, including literal infringement claims that were particularly meritless. Kilopass relied on these baseless claims to force Sidense to engage in a long and expensive patent litigation. Further, Kilopass litigated the present action in an unreasonable manner, engaging in conduct that at times amounted to gamesmanship. Based on these factors, the Court, exercising its sound discretion, concludes that an

¹⁵ The Court notes that its conclusion that the present case is "exceptional" under § 285 is not based on Sidense's arguments: (1) that Kilopass acted improperly by asserting patents on technology that Kilopass never used; and (2) that Sidense lost customers as a result of the lawsuit. Kilopass has not provided the Court with any authority showing that the fact that the patentee does not practice the invention is relevant to the determination of whether a case is "exceptional" under § 285. Further, the evidence presented by Sidense is insufficient to establish that it lost any current or potential customers as a result of Kilopass's lawsuit. See Docket No. 418-3, Wania Decl. ¶2-3. In addition, the Court does not reach any conclusions as to Kilopass's motives in filing the present action.

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3 CONCLUSION 4 For the foregoing reasons, the Court GRANTS defendant's renewed motion for attorney's fees. 5 Docket No. 417. In addition, the Court sets forth the following briefing schedule on the appropriate 6 amount of attorney's fees to be awarded: 7 Sidense must file its opening brief on the appropriate amount of attorney's fees by August 29, 1. 8 **2014**. 9 2. Kilopass must file its opposition brief by **September 12, 2014**. 10 3. Sidense may file a reply brief by **September 19, 2014**. 11 4. The Court will hold a hearing on the appropriate amount of attorney's fees on **Friday, October** 12 17, 2014 at 9:00 a.m. 13 14 IT IS SO ORDERED. 15 16 Dated: August 12, 2014 SUSAN ILLSTON 17 United States District Judge 18 19 20 21 22 23 24 ¹⁶ In its opposition, Kilopass argues that the Court should decline to award attorney's fees based 25 26

award of attorney's fees in the present action is appropriate.¹⁶

on principles of equity. Docket No. 420 at 24. Kilopass notes that the Court stated in its prior order denying attorney's fees that both sides were "disingenuous and obdurate" in their litigation conduct. *Id.* Kilopass argues that Sidense, therefore, comes with unclean hands and may not receive an award of attorney's fees under traditional principles of equity. *Id.* However, the passage cited by Kilopass was in reference to the parties' conduct with respect to their business tort claims. Docket No. 370 at 4. The statement was unrelated to Sidense's defense of Kilopass's patent infringement claims. Sidense's conduct with respect to its business tort claims is not a proper basis for the denial of attorney's fees under § 285.