

United States District Court
For the Northern District of California

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

DYNETIX DESIGN SOLUTIONS, INC., a
California corporation,

Plaintiff/Counter-defendant,

v.

SYNOPSIS, INC., a Delaware corporation,

Defendant/Counter-claimant.

Case No. C 11-05973 PSG

**ORDER GRANTING MOTION TO
EXCLUDE OPINIONS AND
TESTIMONY OF PLAINTIFF'S
DAMAGES EXPERT**

(Docket No. 430)

In football, new schemes come and go faster than teenage fashion trends. One team enjoys certain success with a spread offense, and suddenly every team is running no-huddle with a quarterback shotgun and four receiver sets. No matter that every year the overwhelming majority of teams fail in whatever particular scheme is the current fad. Patent litigation is not much different. Daubert motions used to be relatively rare in patent cases, and Daubert challenges to damages experts rarer still. But with a few high profile successes, now every patent trial lawyer worth her salt brings a challenge to the damages opinions offered by her adversary. Never mind that the percentage of such challenges that succeed is exceedingly small. Or that a decent cross-examination could deal with most problems just fine.

1 And yet every once in a great while, a Daubert challenge to a patent damages expert is
2 justified. This case presents just an instance.

3 Plaintiff Dynetix Design Solutions, Inc. (“Dynetix”) retained Dr. William H. Black (“Dr.
4 Black”) to provide his expert opinion on the issues of reasonable royalty to compensate for patent
5 infringement. Defendant Synopsys, Inc. (“Synopsys”) moves to exclude Dr. Black’s opinions and
6 testimony under Federal Rules of Evidence 702 and 703 and *Daubert v. Merrell Dow*
7 *Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Because the court concludes that Dr. Black employed
8 impermissible and arbitrary methodologies to determine both the royalty base and the royalty rate in
9 his damages opinion, the court GRANTS Synopsys’s motion, with leave for Dr. Black to offer a
10 renewed expert report before trial.

11 **I. DR. BLACKS’S METHODOLOGY**

12 Dr. Black started his analysis by determining a royalty base. He determined that “the royalty
13 base would be the entire sale of [Synopsys’s] VCS [product].”¹ Although the accused Design-Level
14 Parallelism (“DLP”) feature of Synopsys’s VCS product is only one of many features, Dr. Black
15 utilized the sales data from all of VCS because Synopsys has not separately sold any smaller VCS
16 components. Dr. Black did not further apportion the royalty base to account for the non-patented
17 features of the VCS product.

18 Dr. Black then determined a royalty rate. He stated: “One reasonable starting point for a
19 reasonable royalty rate is half of the gross margin of the infringing products,” i.e., “to divide the
20 gross margin of the product between the parties.”² He then cut the calculated profit margin of
21 76.7% in half, for a starting point of 38%. From there, he applied the Georgia-Pacific factors to
22 alter the rate. He determined that the first factor was irrelevant because there were no other similar
23 licenses available for him to consider, and he also ruled out the second and fifteenth factors. Based
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28 ¹ Docket No. 458 ¶ 20.

² *Id.* ¶ 24.

1 on his conclusion that the hypothetical license would be non-exclusive and that Dynetix was a
2 willing licensor (third and fourth factors), he reduced the royalty rate further, to 19%. He then
3 further reduced the rate again, to 9.5%, based on Dynetix’s lack of a successful product (factors
4 eight and ten). But due to “strong evidence of the value of the parallel simulation technology of the
5 patent” (factors 6, 9 and 11), he bumped the royalty rate back up, to 14.25%.

6 After multiplying his VCS royalty base by the 14.25% royalty rate for the relevant time
7 period, Dr. Black concluded that a reasonable royalty at the time would have been about \$156
8 million. Recognizing that, of the two features that were originally accused of infringement, Design-
9 Level Parallelism (“DLP”) and Application-Level Partitioning (“ALP”), only DLP remains in the
10 case, he ultimately apportioned 75% of the royalty to DLP and 25% of the royalty to ALP, resulting
11 in an approximately \$117 million royalty.³

12 **II. DISCUSSION**

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14 The court must exercise its “basic gatekeeping obligation” to ensure that Dr. Black’s
15 damages testimony is reliable and “tied to the relevant facts and circumstances of this particular
16 case.”⁴ Because Dr. Black’s opinion regarding the reasonable royalty is neither reliable nor tied to
17 the facts of this case, as explained below, the court must exclude any testimony based on the current
18 damages report. First, in determining the royalty base, Dr. Black failed to apportion profits between
19 the patented feature and the numerous non-infringing features in the accused product. Second, in
20 determining the royalty rate, Dr. Black impermissibly assumed, based on no facts in this particular
21 case, that the starting point for a hypothetical negotiation would be 50% of the gross profit margin.

22 **A. Reasonable Royalty Generally**

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24 35 U.S.C. § 284 provides:

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27 ³ Id. ¶ 62.

28 ⁴ See *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579, 591, 598 (1993); *Uniloc v. USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011).

1 Upon finding for the claimant, the court shall award the claimant damages adequate
2 to compensate for the infringement, but in no event less than a reasonable royalty for
3 the use made of the invention by the infringer, together with interest and costs as
4 fixed by the court.

5 The goal of the damages award is not to punish the infringer, but rather to make the patentee whole
6 by ascertaining what the patent holder would have made “had the infringer not infringed.”⁵
7 Infringement compensation can be the patentee’s “lost profits” or the “reasonable royalty he would
8 have received through arms-length bargaining.”⁶ “The burden of proving damages falls on the
9 patentee.”⁷

10 Here, Dynetix seeks compensation based only on the reasonable royalty approach. A
11 reasonable royalty is the amount that Synopsys would have paid Dynetix for a license in a
12 hypothetical world “just before infringement began.”⁸ In this hypothetical negotiation, the parties
13 are presumed (1) to be willing to give and take a license and (2) to accept that the asserted patent
14 claims are valid and infringed.⁹

15 The calculation of the reasonable royalty is a two-step process. First, it requires the
16 determination of a royalty base, “or the revenue pool implicated by the infringement.”¹⁰ The second
17 determination is the royalty rate, or “the percentage of that pool ‘adequate to compensate’ the
18 plaintiff for that infringement.”¹¹

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21 ⁵ Lucent Techs., Inc. v. Gateway, Inc., 580 F.3d 1301, 1324 (Fed. Cir. 2009) (quoting Aro Mfg. Co.
22 v. Convertible Top Replacement Co., 377 U.S. 476, 507 (1964)).

23 ⁶ Id.

24 ⁷ Id.

25 ⁸ Id. at 1324. Other Federal Circuit opinions phrase the date as “the date that the infringement
26 began,” “the date of first infringement,” or “the date infringement started.” See LaserDynamics,
27 Inc. v. Quanta Computer, Inc., 694 F.3d 51, 75 (Fed. Cir. 2012) (citing cases).

28 ⁹ See Lucent, 580 F.3d at 1324-25.

¹⁰ Cornell Univ. v. Hewlett-Packard Co., 609 F. Supp. 2d 279, 286 (N.D.N.Y. 2009).

¹¹ Id.

1 **B. Royalty Base Analysis**

2 Calculating the royalty base is difficult when it comes to products, such as those at issue
3 here, where one component “may be covered by an asserted patent, while other components are
4 not.”¹² Courts—including, to be fair, this one— have struggled with whether and how to evaluate
5 an apportionment of the royalty base in this scenario.¹³ In *Lucent*, the Federal Circuit held that if the
6 patentee seeks a royalty base equivalent to the “entire market value” of the accused product, “the
7 patentee must prove that ‘the patent-related feature is the ‘basis for customer demand.’”¹⁴ *Lucent*
8 struck the jury’s damages award where the royalty was based on the “entire market value” of the
9 accused product, *Microsoft Outlook*, where there plaintiff presented no evidence to establish that the
10 allegedly infringing smaller-component, the date-picker tool, was a substantial basis for consumer
11 demand for *Outlook*.¹⁵ *Lucent* thus stands for the proposition that, in the absence of evidence that
12 the infringing feature drives demand, the royalty base must be somehow apportioned to reflect the
13 value of the patent-related feature in the absence of the non-infringing features.¹⁶ *Lucent* did not
14 reach the challenging follow-on issue of exactly how one is to apportion the base.
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16 In *Cornell*, Chief Judge Rader required the patentee to utilize the “smallest salable unit
17 approach” to apportion the royalty base.¹⁷ Under this approach, the patentee must determine the
18 “smallest salable infringing unit with close relation to the claimed invention,” which, in that case,
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21 ¹² *LaserDynamics*, 694 F.3d at 67 (quotations omitted).

22 ¹³ See *id.* (“To assess how much value each patented and non-patented component individually
23 contributes to the overallend product—e.g., a personal computer—can be an exceedingly difficult
24 and error-prone task.”). Cf. *Brocade Communic. Sys., Inc. v. A10 Networks, Inc.*, Case No. C 10-
25 3428 PSG, Docket No. 998 (N.D. Cal. May 15, 2013).

26 ¹⁴ *Lucent*, 580 F.3d at 1336.

27 ¹⁵ *Id.* at 1337-38 (“*Lucent*’s damages expert conceded that there was no evidence that anybody
28 anywhere at any time ever bought *Outlook*, be it an equipment manufacturer or an individual
consumer, . . . because it had ‘date picker.’”). The court also made clear that it is impermissible to
compensate for an overly broad royalty base by selecting a lower royalty rate. *Id.* at 1338.

¹⁶ See *id.* at 1337-38.

¹⁷ See *Cornell*, 609 F. Supp. 2d at 287-90.

1 was the processor containing the infringing component.¹⁸ Chief Judge Rader held that the smallest
2 salable unit must be the starting point for the royalty base.¹⁹ Contrary to Dynetix’s assertion,
3 however, the court did not hold that no further apportionment is ever necessary once the smallest
4 salable unit is determined. The court’s opinion in Cornell is explicit that the use of the entire
5 market value is inappropriate where the patented feature is not the basis for consumer demand for
6 the product sold.²⁰ This court sees no logical basis to depart from an apportionment requirement in
7 a case, such as the present one, where the alleged smallest salable unit plainly is not closely tied to
8 the patented feature. Here, DLP is an optional feature in the VCS product, and the patented feature
9 is just one component of DLP.
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11 LaserDynamics does not suggest the contrary. In LaserDynamics, the Federal Circuit
12 “reaffirm[ed] that in any case involving multi-component products, patentees may not calculate
13 damages based on sales of the entire product, as opposed to the smallest salable patent-practicing
14 unit, without showing that the demand for the entire product is attributable to the patented
15 feature.”²¹ This language affirms that the smallest salable unit must be closely tied to the patent to
16 suffice. Later in the opinion, the court specifically addresses LaserDynamics’ argument that
17 defendant Quanta was in the business of marketing and selling only entire computers, rather than the
18 independent purportedly infringing feature called “ODD,” and thus the entire computer was the only
19 product for which accurate market data was available.²² The court rejected this argument,
20 concluding that if the smallest salable unit was in fact the entire computer, “the exceedingly difficult
21 and error-prone task of *discerning the ODD’s value relative to all other components* in the laptop
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24 ¹⁸ Id. at 288.

25 ¹⁹ See id.

26 ²⁰ Id. at 286 (“The entire market value rule in the context of royalties requires adequate proof [that]
27 . . . the infringing components must be the basis for customer demand for the entire machine
28 including the parts beyond the claimed invention.”).

²¹ LaserDynamics, 694 F.3d at 67-68 (emphasis added).

²² Id. at 69-70.

1 remains.”²³ Thus, LaserDynamics supports the premise that an apportionment is required even
2 where there the accused product is the smallest salable unit or where whatever the smallest salable
3 unit is it is still a multi-component product encompassing non-patent related features.

4 Because Dr. Black relied on the blanket assumption that, once he selected the smallest
5 salable unit—in this case the entire VCS product—he could end the analysis, his determination of
6 the royalty base is fundamentally flawed.²⁴ Here, the alleged smallest salable unit is not, in fact, any
7 smaller or any different than the entire multi-component product, but rather is the multi-component
8 VCS product. As such, “the difficult task of determining [DLP’s] value relative to all other
9 components of [VCS] remains.”²⁵ Dr. Black improperly skipped this task of apportionment, and his
10 opinion may be excluded on this basis alone.²⁶

11 **C. Royalty Rate Analysis**

12 To compound the problems with Dr. Black’s opinion, he also starts off his royalty rate
13 analysis with the presumption that “one reasonable starting place” for the licensing rate would be
14 half of the gross margin of the infringing products. While the court does not disagree that this could
15 be “one” reasonable starting place, the law requires Dr. Black to tailor the royalty rate to the specific
16 facts of this particular case, including the “particular technology, industry, or party.”²⁷ Dynetix
17 admits in its opposition brief that “Dr. Black’s starting point relies on nothing but the assumptions
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21 ²³ Id. at 70 (emphasis added).

22 ²⁴ See *AVM Tech., LLC v. Intel Corp.*, Case No. 10-610-RGA, 2013 WL 126233, at *3 (D. Del. Jan.
23 4, 2013) (“The use of a saleable unit that is greater than the patented feature is going to introduce
24 Uniloc error when the patented feature is a ‘date picker’ whether the saleable unit is a computer
25 loaded with ‘Outlook’ or is simply ‘Outlook.’”).

26 ²⁵ See *id.*

27 ²⁶ The fact that Dr. Black excluded ALP from the total royalties (an accused feature no longer in the
28 case) at the very end of the analysis does not cure the error. The 75/25% apportionment to DLP and
ALP respectively does not account for the plethora of other non-infringing features in VCS other
than DLP and ALP.

²⁷ *Uniloc*, 632 F.3d at 1317.

1 that the patent is valid and infringed, and that there is no other information.²⁸ Although Dr. Black
2 later applies the Georgia-Pacific factors to this starting point based on additional evidence, an
3 arbitrary starting point is impermissible under *Uniloc*.²⁹

4 In *Uniloc*, the Federal Circuit rejected the now-infamous 25% “rule of thumb” (i.e., an
5 assumption that 25% of the profit margin was a reasonable place for starting the royalty rate
6 determination), which was based on Robert Goldscheider’s studies of previous, unrelated
7 commercial licenses in general.³⁰ Here, *Synopsys* states that Dr. Black’s 50% starting place was
8 based on “his own experience and judgment on how to apportion profit between the licensee and
9 licensor where there is no other information to slant the apportionment one way or another.”³¹ Dr.
10 Black’s starting point is thus even more arbitrary than the 25% starting place rejected by the Federal
11 Circuit.

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13 To support Dr. Black’s analysis, *Dynetix* points to a case from the District of New Jersey,
14 *Sanofi-Aventis Deutschland GMBH v. Glenmark Pharmaceuticals Inc., USA*, where the court
15 accepted a 50% split of the profits as the starting point for the royalty rate determination.³² In
16 *Sanofi-Aventis*, however, the court accepted the profit split only after accepting the plaintiffs’
17 argument that their damages expert

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19 did not arbitrarily apply a 50/50 profit split, but rather reached that result after
20 considering the facts of the case, specifically the relationship between the parties and
21 their relative bargaining power, the relationship between the patent and the accused
22 products, the standard profit margins in the industry, and the presume validity of the
23 patent.³³

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25 ²⁸ Docket No. 462 at 3:7-10 (emphasis added).

26 ²⁹ See *Uniloc*, 632 F.3d at 1315.

27 ³⁰ *Id.* Some fifty years later, Mr. Goldscheider offers a robust and fascinating defense of his
28 analysis, *Uniloc* notwithstanding. See Robert Goldscheider, *The Classic 25% Rule and the Art of
Intellectual Property Licensing*, 2011 *Duke L. and Tech. Rev.* 006.

³¹ Dkt. No. 462 at 16:7-8 (emphasis added).

³² Case No. 07-5855, 2011 WL 383861, at *13 (D.N.J. Feb. 3, 2011).

³³ *Id.* (emphases added).

1 Admittedly, Dr. Black considered no analogous facts of the case here other than the presumed
2 validity of the patent. He failed to cite any evidence to support his conclusion that the 50% starting
3 place would apply to component parts such as DLP in this particular industry. Dr. Black's
4 methodology is indistinguishable from 25% rule rejected in Uniloc, except that it may be even more
5 arbitrary.³⁴ The court recognizes the difficulty in determining an appropriate starting point given
6 the lack of any prior licenses to Dynetix's DLP patent; however, the analysis must be based on
7 industry evidence and must consider the relationship between the patented feature and the accused
8 products to determine a case and party specific starting point. The starting point should take into
9 account any analogous license offers in the industry for patents covering component parts, or at least
10 take into account the nature of the patented feature as a small and optional feature in the accused
11 VCS product. Dr. Black's royalty analysis does neither, and so it, too, must be excluded.³⁵

14 III. CONCLUSION

15 Dr. Black's opinions and testimony based on his present damages report cannot be allowed
16 to lead the jury into certain error. This leaves the question of what to do about it, beyond striking
17 the opinions and testimony tendered to date. On balance, and in consideration of its due process
18 rights, the court is loathe to leave Dynetix stripped of any damages expert testimony whatsoever.
19 This is especially so in light of Chief Judge Rader's example in Cornell, whereby he gave the
20 patentee one further opportunity to tender an admissible damages opinion even as trial continued on.
21 Because Dynetix would otherwise be left without any real evidence of damages, the court will
22 permit it one more opportunity to offer a new expert report on damages. With trial imminent,
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25 ³⁴ Accord *Oracle Am., Inc. v. Google Inc.*, 798 F. Supp. 2d 1111, 1120 (N.D. Cal. 2011) (rejecting
26 the "Nash bargaining solution" under Uniloc because it simply "cloth[ed] a fifty-percent assumption
in an impenetrable façade of mathematics").

27 ³⁵ The court does not go into each Georgia-Pacific factor specifically, but would advise Dynetix to
28 take heed of Synopsys's objections to any reliance on the ViewLogic and Agilent product license
agreements as evidence of royalty rates in a hypothetical patent license negotiation.

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Dynetix shall tender any such report on or before August 27, 2013 in accordance with the guidance in this order.³⁶ Synopsys may update its own damages expert report, as well as depose Synopsys's expert, no later than August 30, 2013.

Dated: August 22, 2013



PAUL S. GREWAL
United States Magistrate Judge

³⁶ See Cornell, 609 F. Supp. 2d at 284.