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11 **UNITED STATES DISTRICT COURT**
12 **SOUTHERN DISTRICT OF CALIFORNIA**
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14 VIASAT, INC., VIASAT
15 COMMUNICATIONS, INC., f/k/a
16 WILDBLUE COMMUNICATIONS,
17 INC.,
18
19 Plaintiffs,
20 vs.
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22 SPACE SYSTEMS/LORAL, INC.,
23 LORAL SPACE &
24 COMMUNICATIONS, INC.,
25
26 Defendants.
27
28

CASE NO. 3:12-CV-00260-H
(WVG)

**ORDER DENYING
DEFENDANTS' MOTION
FOR SUMMARY
JUDGMENT OF NON-
INFRINGEMENT AND,
ALTERNATIVELY PARTIAL
INVALIDITY OF U.S.
PATENT NO. 8,010,043**

[Doc. No. 501.]

On December 17, 2013, Defendants Space Systems/Loral, LLC and Loral Space & Communications Inc. (collectively, "SS/L") filed a motion for summary judgment of non-infringement and, alternatively, partial invalidity of U.S. Patent No. 8,010,043 ("the '043 patent"). (Doc. No. 501.) The Court held a hearing on January 17, 2014. Sean S. Pak, Charles K. Verhoeven, Matthew D. Cannon, and Patrick T. Schmidt appeared for the Plaintiffs. Jacob W. Buchdahl, Amanda Bonn, and Patrick C. Bageant

1 appeared for the Defendants. For the following reasons, the Court denies Defendants'
2 motion.

3 **I. Background**

4 This patent litigation involves competing producers of satellites and satellite
5 networking systems. Each party owns patents concerning systems and methods
6 designed to maximize the efficiency of satellite networking communications, and each
7 party alleges that the opposing party's products infringe its patents. (See generally Doc.
8 Nos. 475, 486.)

9 ViaSat's '043 Patent is entitled "Capacity Maximization for a Unicast Spot Beam
10 Satellite System" and was issued on August 30, 2011. (Doc. No. 475 at ¶ 90.) The
11 independent claims of the '043 Patent disclose techniques that allow for more efficient
12 communications in an "interference-dominated" environment. (Doc. No. 541-1 at 125.)
13 ViaSat alleges that the Defendants' Jupiter-1 and NBN satellites infringe the '043
14 Patent. (Doc. No. 475 at 30.)

15 SS/L asks for summary judgment of non-infringement on the grounds that the
16 Jupiter-1 and NBN satellites do not attain maximum capacity under any construction
17 of the claims of the '043 Patent. (Doc. No. 501 at 3-15.) Alternatively, SS/L asks for
18 summary judgment of invalidity of the '043 Patent based on a prior patent's anticipation
19 of its technologies. (Id. at 15-22.)

20 **II. Legal Standards**

21 *A. Summary Judgment Standard*

22 Summary judgment is only proper "if the pleadings, the discovery and
23 disclosure materials on file, and any affidavits show that there is no genuine issue as
24 to any material fact and that the movant is entitled to judgment as a matter of law."
25 Fed. R. Civ. P. 56(c). Defendants bear the burden of establishing this absence of a
26 genuine issue of material fact. Id.; Cable Elec. Prods., Inc. v. Genmark, Inc., 770
27 F.2d 1015, 1022 (Fed. Cir. 1985). The Court must make all justifiable inferences in
28 the non-movant's favor. Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255

(1986); Giles v. General Motors Acceptance Corp., 494 F.3d 865, 872 (9th Cir. 2007). The non-movant, however, is not required to submit such evidence, unless the moving party carries its initial burden of negating an essential element of the nonmoving party's claim. Nissan Fire & Marine Ins. Co., Ltd. v. Fritz Cos., Inc., 210 F.3d 1099, 1105 (9th Cir. 2000). A conflict between the experts' opinions on a material issue defeats summary judgment. See Crown Packaging Tech., Inc. v. Ball Metal Beverage Container Corp., 635 F.3d 1373, 1383 (Fed. Cir. 2011) ("Where there is a material dispute as to the credibility and weight that should be afforded to conflicting expert reports, summary judgment is usually inappropriate.").

When a motion for summary judgment depends on credibility determinations and/or differing views on the inferences to be drawn from the evidence, summary judgment is improper. See T.W. Elec. Serv., Inc. v. Pacific Elec. Contractors Ass'n, 809 F.2d 626, 630-31 (9th Cir. 1980). Here, because SS/L moves for summary judgment, the Court must draw inferences from the record in ViaSat's favor. See Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586 (1986).

B. Legal Standard for Infringement

Infringement is a question of fact. Move, Inc. v. Real Estate Alliance Ltd., 709 F.3d 1117, 1121 (Fed. Cir. 2013) (citing Absolute Software, Inc. v. Stealth Signal, Inc., 659 F.3d 1121, 1129-30 (Fed. Cir. 2011)). The scope of the claims is judged from the perspective of a person of ordinary skill in the art. Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005).

To obtain summary judgment of non-infringement, Defendants must establish "beyond controversy" that their accused products do not infringe ViaSat's asserted patents. See Southern Calif. Gas Co. v. City of Santa Ana, 336 F.3d 885, 888 (9th Cir. 2003). An apparatus claim that includes a functional limitation is infringed when the apparatus is configured such that it is capable of performing the functional limitation. See Microprocessor Enhancement Corp. v. Tex. Instruments Inc., 520 F.3d 1367, 1375 (Fed. Cir. 2008). "Comprising" claims are presumptively open-ended, and the

1 capability of an otherwise infringing device to perform extraneous functions does not
2 negate infringement. Gillette Co. v. Energizer Holdings Inc., 405 F.3d 1367, 1371-72
3 (Fed. Cir. 2005). (See also Doc. No. 358.)

4 Whether or not an accused product infringes under the doctrine of equivalents
5 ("DOE") is a question of fact. See Ferguson Beauregard/Logic Controls v. Mega
6 Systems, 350 F.3d 1327, 1338 (Fed. Cir. 2003) (citing Insitugorm Techs., Inc. v. Cat
7 Contracting, Inc., 161 F.3d 688, 692 (Fed. Cir. 1998)). The Federal Circuit has
8 explained that proving infringement under the DOE requires a showing that the
9 substitute element (1) has substantially the same function as the recited element; (2)
10 achieves that function in substantially the same way; and (3) achieves substantially the
11 same result. Charles Mach. Works, Inc. v. Vermeer Mfg. Co., 723 F.3d 1376, 1380
12 (Fed. Cir. 2013).

13 *C. Legal Standard for Invalidity by Anticipation*

14 A patent is presumed valid. 35 U.S.C. § 282; Laryngeal Mask Co. v. Ambu, 618
15 F.3d 1367, 1373 (Fed. Cir. 2010). "[A] moving party seeking to invalidate a patent at
16 summary judgment must submit such clear and convincing evidence of facts underlying
17 invalidity that no reasonable jury could find otherwise." SRAM Corp. v. AD-II Eng'g,
18 Inc., 465 F.3d 1351, 1357 (Fed. Cir. 2006).

19 "[I]nvalidity by anticipation requires that the four corners of a single, prior art
20 document describe every element of the claimed invention, either expressly or
21 inherently, such that a person of ordinary skill in the art could practice the invention
22 without undue experimentation." Advanced Display Sys., Inc. v. Kent State Univ., 212
23 F.3d 1272, 1282 (Fed. Cir. 2000). If a prior art reference does not expressly set forth
24 a particular claim element, the reference may still anticipate if the element is inherent
25 in the prior art. In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999). The claim
26 element must necessarily be present in the prior art. Id. "Inherency, however, may not
27 be established by probabilities or possibilities. The mere fact that a certain thing may
28 result from a given set of circumstances is not sufficient." Bettcher Indus., Inc. v.

1 Buznl USA, Inc., 661 F.3d 629, 639 (Fed. Cir. 2011) (quoting In re Oelrich, 666 F.2d
 2 578, 581 (C.C.P.A. 1981)); see also Trintec Indus., Inc. v. Top-U.S.A. Corp., 295 F.3d
 3 1292, 1297 (Fed. Cir. 2002) ("Inherency does not embrace probabilities or
 4 possibilities.") Thus, if prior art potentially has all claim elements, but does not
 5 necessarily have all claim elements, the prior art does not anticipate the patent claim.

6 Proving anticipation of a claim requires clear and convincing evidence that each
 7 and every limitation of the claim is present in a single prior art reference. Sanofi-
 8 Synthelabo v. Apotex, Inc., 470 F.3d 1368, 1375 (Fed. Cir. 2006). "Clear and
 9 convincing evidence" is evidence which produces in the mind of the trier of fact an
 10 abiding conviction that the trust of a factual contention is "highly probable." Price v.
 11 Symsek, 988 F.2d 1187, 1191 (Fed. Cir. 1993).

12 **III. Discussion**

13 *A. Non-infringement*

14 SS/L moves for summary judgment, arguing that the Jupiter and NBN satellites
 15 do not infringe the '043 Patent because they do not attain maximum capacity under any
 16 construction of the claims of the '043 Patent. (Doc. No. 501 at 7-8, 10-11.) Claim 1
 17 recites, in relevant part, "the satellite is operated to maximize data-carrying capacity
 18 of the plurality of spot beams as measured in bits/Hz." ('043 Patent, 20:60-61.) Claims
 19 4 and 5 depend from Claim 1, and state as follows:

20 The satellite for illuminating a geographic area with signals of claim 1,
 21 wherein the beam pattern has a single color of frequency and
 22 polarization.
 (Id. at 20: 21:13-15.)

23 The satellite for illuminating a geographic area with signals of claim 1,
 24 wherein the beam pattern has a beam spacing characterized by a cross-
 over point of less than -6 dB.
 (Id. at 20: 21:16-19.)

25 ViaSat points out that Claim 1 requires a "plurality of spot beams . . . to service
 26 a plurality of service links." (Ex. 1, at col.20 ll.38-39.) A "service link" is the link that
 27 transfers data from the gateways to the service beams, and Claim 1 discloses that the
 28 spot beams illuminate regions "in order to send information" to pluralities of subscriber

1 terminals. (Id. at col.20 ll.42-44, 45-48.) The specification further discloses that a
2 "maximized" satellite necessarily includes gateways that provide data to the service
3 links. (See, e.g., id. at col.17 ll.23-26 (describing embodiment and noting "the single-
4 color system . . . requires 40 gateways . . ."), Figs. 1, 2A, 9A-9C, 22, 24.) The patent
5 also discloses that the fewer colors one uses, the more gateways one needs. (See, e.g.,
6 id. at Figs. 9A-9C, 24.)

7 Summary judgment is only proper "if the pleadings, the discovery and disclosure
8 materials on file, and any affidavits show that there is no genuine issue as to any
9 material fact and that the movant is entitled to judgment as a matter of law." Fed. R.
10 Civ. P. 56(c).

11 Here, the parties dispute whether the Jupiter and NBN capacity tools maximized
12 capacity as required by the '043 Patent, either directly or under the doctrine of
13 equivalents. (Compare Ex. 18 (84.26 Gbps on 10/19/10), with Ex. 19 (82.05 Gbps on
14 9/30/2010), Ex. 20 (84.123 Gbps on 10/8/2010), and Ex. 21 (81.70 Gbps on
15 10/19/2010).) ViaSat contends that SS/L practices the '043 patent maximization
16 process. (See, e.g., Ex. 1 at col.16, ll.38-42 (referencing four-color capacity estimates
17 in Fig. 18B as relative constant, even though estimates fluctuate slightly above and
18 below 0.50 bps/Hz).) As a result, the Court declines to grant summary judgment on
19 contested facts based on the present record. See T.W. Elec., 809 F.2d at 630-31;
20 Holloingsworth, 622 F.2d at 1335; MeadWestVaco Cop. v. Rexam Beauty and
21 Closures, Inc., 731 F.3d 1258, 1268-69 (Fed. Cir. 2013) (concluding that dispute over
22 methodologies was a "battle of the experts").

23 The parties also dispute whether the Jupiter satellite includes several first spot
24 beams that are affected by interference from other signal sources including the second
25 spot beam. SS/L alleges that ViaSat cannot show the Jupiter satellite infringes Claims
26 1 or 7 of the '043 Patent because it does not establish that any first spot beam is
27 affected by interference from other signal sources including the second spot beam.
28 ViaSat opposes summary judgment on this ground. For example, ViaSat's expert,

1 Sturza, in his analysis of the Jupiter Capacity Tool, further identified the source code
 2 that utilized this equation and then included that information in the beam-by-beam
 3 analysis set forth in Exhibit 22 of his report. (Ex. 18 (column entitled VSAT DL C/I
 4 dB").) In that exhibit, the "x-pol" column notes that cross-polarization interference is
 5 included as a component of co-polarization interference. (Id.) SS/L claims that Sturza
 6 inadequately modeled for cross-polarization interference. (Doc. No. 501 at 28.) But
 7 ViaSat points to Sturza's analysis in his expert opinion to counter this argument. (Ex.
 8 5 ¶ 137 n.1; see also id. ¶ 137 (describing the import of the cross-polarization
 9 interference and co-polarization interference on Jupiter's infringement).) Furthermore,
 10 ViaSat's analysis indicated that Beam 38 did, in fact, generate cross-polarization
 11 interference against Beam 39. (See id. at ¶¶ 100, 189 (noting the Beam 38-39 pairs
 12 "FB1" and "FD1," "FB2" and "FD2," and "FNB" and "FND" each have cross-
 13 polarizations).)

14 Finally, ViaSat argued that SS/L's interpretation of "maximum" would vitiate
 15 dependent Claims 4 and 5. ViaSat argued that this was improper, and the Court agrees.
 16 Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc., 520 F.3d 1358, 1362 (Fed. Cir. 2008).

17 These disputes over material issues of fact preclude summary judgment.
 18 Accordingly, the Court denies SS/L's motion for summary judgment of non-
 19 infringement of the '043 patent.

20 *B. Invalidity*

21 In the alternative, SS/L moves for summary judgment of invalidity based on R.
 22 Rinaldo and R. De Gaudenzi, Capacity Analysis and System Optimization for the
 23 Forward Link of Multi-Beam Satellite Broadband Systems Exploiting Adaptive Coding
 24 and Modulation," International Journal of Satellite Communications and Networking,
 25 2004 ("Rinaldo & De Gaudenzi"). (Doc. No. 501 at 20.) SS/L claims that the Rinaldo
 26 and DeGaudenzi reference is anticipatory prior art. (Id.)

27 Proving anticipation of a claim requires clear and convincing evidence that each
 28 and every limitation of the claim is present in a single prior art reference. Sanofi-

1 Synthelabo v. Apotex, Inc., 470 F.3d 1368, 1375 (Fed. Cir. 2006). "Clear and
2 convincing evidence" is evidence which produces in the mind of the trier of fact an
3 abiding conviction that the truth of a factual contention is "highly probable." Price v.
4 Symsek, 988 F.2d 1187, 1191 (Fed. Cir. 1993).

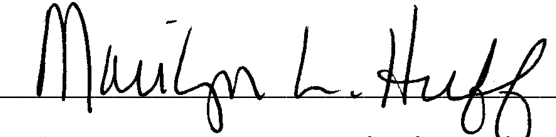
5 The parties dispute whether the Rinaldo and DeGaudenzi reference has every
6 claim element. Specifically, ViaSat disputes whether Rinaldo and DeGaudenzi
7 discloses a maximized satellite. (See Ex. 7 at 47:5-48:2; Ex. 6 ¶¶ 250-51; Ex. 7 at
8 91:16-95-12.) ViaSat also disputes whether Rinaldo and DeGaudenzi discloses a
9 satellite with C/I less than C/N and describes the various expert opinions on this point.
10 (See Doc. No. 570 at 29-30.) Accordingly, the Court denies SS/L's motion for
11 summary judgment of anticipation.

12 **V. Conclusion**

13 Disputed issues of material fact regarding whether SS/L infringed the '043 Patent
14 and whether the '043 Patent is invalid as anticipated prevent the Court from ruling on
15 these questions as a matter of law. Accordingly, the Court denies SS/L's motion for
16 summary judgment of non-infringement and SS/L's motion for summary judgment of
17 invalidity.

18 **IT IS SO ORDERED.**

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20 DATED: January 17, 2014

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23 MARILYN L. HUFF, District Judge
24 UNITED STATES DISTRICT COURT
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