

United States District Court
Northern District of California

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

SEMICAPS PTE LTD,
Plaintiff,
v.
HAMAMATSU CORPORATION, et al.,
Defendants.

Case No. [17-cv-03440-DMR](#)

**ORDER DENYING DEFENDANT'S
MOTION FOR LEAVE TO FILE A
MOTION FOR RECONSIDERATION**

Re: Dkt. No. 66

Plaintiff SEMICAPS Pte Ltd. (“SEMICAPS”) filed this patent case against Defendants Hamamatsu Corporation, Hamamatsu Photonics K.K., and Photonics Management Corp. (collectively, “Hamamatsu”), alleging that Hamamatsu infringes the claims of U.S. Patent No. 7,623,982 (the “’982 patent”). Hamamatsu moved to dismiss the complaint, arguing that the asserted claims are directed to patent-ineligible subject matter. On August 16, 2019, the court denied Hamamatsu’s motion to dismiss the complaint. Hamamatsu now moves for leave to file a motion for reconsideration of the court’s August 16, 2019 order. For the following reasons, the motion is denied.

I. FACTUAL AND PROCEDURAL BACKGROUND

The ‘982 patent is titled “Method of Testing an Electronic Circuit and Apparatus Thereof.” The court recited the relevant details of the technology and asserted claims at length in its order denying the motion to dismiss. *SEMICAPS Pte Ltd. v. Hamamatsu Corp.*, 393 F. Supp. 3d 802, 804-06 (N.D. Cal. 2019). In brief, the ‘982 patent relates to a method of and apparatus for testing electronic circuits using a laser in order to determine the location of defects on a semiconductor circuit. The ‘982 patent’s background information describes the problem the patent seeks to solve, explaining that advances in integrated circuit technology have reduced the detection sensitivity of laser induced techniques to perform fault localization testing. Conventional approaches to

1 improve detection sensitivity, such as increasing the power of the laser beam and using lock-in
2 amplifiers, have not been entirely successful. The ‘982 patent attempts to increase detection
3 sensitivity in laser-based fault detection systems without increasing the power of the laser beam or
4 using lock-in amplifiers. *Id.* The claimed method “comprises radiating a laser beam onto the
5 electronic circuit, and determining a plurality of samples of a response signal output by the
6 electronic circuit during the period when the laser beam is radiated.” *Id.* at 805 (quotation
7 omitted). “A signal processor process[es] the sample measurements of the response signal of the
8 electronic circuit under test by accumul[at]ing the plurality of samples to generate a value, and
9 then generat[ing] a test result based on the value generated.” *Id.* (quotation omitted). “Based on
10 the generated value, a fault on the electronic circuit may appear as a bright spot, bright line, or
11 bright area at a pixel location corresponding to the location of the fault on the electronic circuit.”
12 *Id.* (quotation omitted).

13 Hamamatsu moved pursuant to Federal Rule of Civil Procedure 12(b)(6) to dismiss the
14 complaint, arguing that the asserted claims of the ‘982 patent are invalid under 35 U.S.C. § 101 for
15 failing to claim patent-eligible subject matter.

16 In its order denying the motion to dismiss, the court set forth the Supreme Court’s two-part
17 test for determining whether a claim’s subject matter falls outside Section 101:

18 First, we determine whether the claims at issue are directed to one of
19 those patent-ineligible concepts. If so, we then ask, “[w]hat else is
20 there in the claims before us?” To answer that question, we consider
21 the elements of each claim both individually and “as an ordered
22 combination” to determine whether the additional elements
23 “transform the nature of the claim” into a patent-eligible application.
24 We have described step two of this analysis as a search for an
25 “‘inventive concept’”—i.e., an element or combination of elements
26 that is “sufficient to ensure that the patent in practice amounts to
27 significantly more than a patent upon the [ineligible concept] itself.”

28 *Id.* at 808-09 (quoting *Alice Corp. Pty. V. CLS Bank Int’l*, 573 U.S. 208, 217-18 (2014) (internal
citations omitted, alterations in original).

At the first step of the *Alice* inquiry, Hamamatsu argued that the representative claims are
directed to the abstract idea of collecting data and processing it to generate a test result. It asserted
“that this case is similar to those that found that the claims are abstract where they are directed to

1 some combination of collecting and/or analyzing information and presenting the results of those
2 processes,” including *Electric Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir.
3 2016). *Id.* at 810 (quotation omitted). Hamamatsu also argued that “the inclusion of hardware and
4 software components in the asserted claims does not change the abstract focus of the claims.” *Id.*
5 at 812. In response, SEMICAPS disputed Hamamatsu’s framing and argued that the claims are
6 “directed to a specific technological problem, namely, improving fault detection sensitivity in
7 laser-based testing of integrated circuits,” and that the patent “describes and claims a specific
8 solution to that problem.” *Id.* at 812 (quotations omitted).

9 The court found that “Hamamatsu’s characterization of the ‘982 patent as directed to the
10 processes of collecting and analyzing information and presenting the results of those processes
11 [was] overly reductive” and “ignore[d] the technical context of the patent and the claimed
12 improvements over the prior art.” *Id.* at 814. The court described the asserted claims as follows:

13 The ‘982 patent explains how advancements in integrated circuits,
14 including the use of more metallization layers and materials with
15 lower thermal conductivity, have resulted in the need for increased
16 fault detection sensitivity. It describes the problems inherent with
17 existing approaches and sets forth a new system for testing integrated
18 circuits that enables the detection of otherwise undetectable response
19 signals. Claim 1 describes the claimed method, which involves
20 radiating a laser beam onto the electronic circuit, determining a
21 plurality of samples of a response signal output during the period the
22 laser is radiated, accumulating the plurality of samples to generate a
23 value, and generating a test result based on the value. Claim 21 sets
24 forth the claimed apparatus, comprised of a laser beam source to
25 radiate a laser beam onto the electronic circuit, a control system to
26 direct the laser beam source to dwell on a certain location on the
27 electronic circuit, a measuring circuit to determine a plurality of
28 samples, and a signal processor to accumulate the plurality of samples
to generate a value and a corresponding test result.

These claims describe a method and apparatus that enable the
detection of response signals that were otherwise undetectable using
prior art methods due to insufficient sensitivity, and the corresponding
analysis of such response signals in order to determine the location of
a fault on an electronic circuit.

25 *Id.* at 814-15. The court distinguished the claims of the ‘982 patent from the claims at issue in
26 *Electric Power Group*, which involved “accumulating existing data from disparate sources,
27 analyzing it, and displaying the results.” *Id.* at 815. In contrast with the *Electric Power Group*
28 claims,

1 the method disclosed in the ‘982 patent is not merely a process of
2 collecting readily observable data in the form of response signals and
3 analyzing it to localize faults on the circuit. Instead, the asserted
4 claims of the ‘982 patent describe a method of detecting response
signals that are otherwise undetectable using prior art methods. They
are therefore directed to a “new and useful technique” for performing
the specified task of using a laser to perform fault localization testing
of an electronic circuit.

5 Id. (citation omitted).

6 The court concluded that the asserted claims of the ‘982 patent are not directed to an
7 abstract idea, but instead “focus on a specific means or method that improves the relevant
8 technology’ and are therefore directed to patent-eligible subject matter under Section 101.” Id. at
9 817 (citing *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016)).
10 Accordingly, as the claims satisfied the step one Alice inquiry, the court did not reach the step two
11 analysis and denied the motion to dismiss. Id. (quoting *Alice*, 573 U.S. at 217).

12 Hamamatsu now seeks leave to file a motion for reconsideration of the court’s August 16,
13 2019 order.

14 **II. LEGAL STANDARD**

15 Pursuant to Local Rule 7-9, a party may seek leave to file a motion for reconsideration of
16 an interlocutory order at any time before judgment. Civ. L.R. 7-9(a). A motion for
17 reconsideration may be made on one of three grounds: (1) a material difference in fact or law
18 exists from that which was presented to the court, which, in the exercise of reasonable diligence,
19 the party applying for reconsideration did not know at the time of the order for which
20 reconsideration is sought; (2) the emergence of new material facts or a change of law; or (3) a
21 manifest failure by the court to consider material facts or dispositive legal arguments presented
22 before such order. Civ. L.R. 7-9(b)(1)-(3). The moving party may not reargue any written or oral
23 argument previously asserted to the court. Civ. L.R. 7-9(c). Whether to grant leave to file a
24 motion for reconsideration under Rule 7-9 is committed to the court’s sound discretion. See
25 *Montebueno Mktg., Inc. v. Del Monte Corp.—USA*, 570 Fed. App’x 675, 676 (9th Cir. 2014)
26 (citing *Bias v. Moynihan*, 508 F.3d 1212, 1223 (9th Cir. 2007)).

27 **III. DISCUSSION**

28 Hamamatsu argues that reconsideration is appropriate under Local Rule 7-9(b)(3), which

1 provides that reconsideration of an order may be granted upon a showing of the court’s “manifest
2 failure . . . to consider material facts or dispositive legal arguments which were presented to the
3 Court before” the order. It argues that the order “was premised on a factual misunderstanding of
4 how the claimed invention operates compared to conventional systems known in the prior art.”
5 Mot. 1. Specifically, Hamamatsu asserts that the court erred in its conclusion that the claims are
6 directed to a technological improvement in the operation of a laser-induced testing system, that is,
7 “the improve[ment] [of] an existing technological process by which previously undetectable
8 response signals may be detected and analyzed to pinpoint the location of a fault on an electronic
9 circuit.” *Id.* (quoting *SEMICAPS*, 393 F. Supp. 3d at 815 (emphasis added)). According to
10 Hamamatsu, this characterization of the invention is “factually incorrect.” *Id.* at 2.

11 Hamamatsu states that the “response signal” to which the ‘982 patent refers is a voltage or
12 current running through the electronic circuit being tested, and that voltage and current are the
13 types of response signals that conventional laser-induced testing systems were designed to detect.
14 *Id.* It notes that the ‘982 patent identifies prior art systems that measure response signals in the
15 form of voltage or current, and states that because the ‘982 patent “measures the same type of
16 response signals as conventional prior-art systems, it does not detect ‘response signals that are
17 otherwise undetectable’ or ‘previously undetectable.’” *Id.* Hamamatsu further contends that the
18 concept of “previously undetectable response signals” does not appear in the patent, and that the
19 patent does not propose improvements that would allow the claimed system to detect “previously
20 undetectable response signals.” Instead, Hamamatsu asserts, “[t]he claimed invention simply
21 collects more data by taking multiple samples of the voltage or current, and processes this data to
22 generate a test result.” *Id.* Hamamatsu contends that the court’s finding that the claimed invention
23 enables the detection of “previously undetectable response signals” led it to determine incorrectly
24 that the claims of the ‘982 patent are not abstract, and repeats its argument that the reasoning in
25 *Electric Power Group* applies here. *Id.* at 3.

26 Hamamatsu’s argument boils down to word choice rather than material factual error. As
27 set forth in the order, the ‘982 patent discusses how conventional approaches to improve the
28 detection sensitivity of laser induced techniques, such as increasing the power of the laser beam

1 and using lock-in amplifiers, “have not been entirely successful.” Specifically, the patent explains
2 that increasing the power of the laser beam carries the potential for “laser induced damage on the
3 integrated circuit under test,” and that “lock-in amplifiers are not used in a real-time integrated
4 circuit testing environment because accurate calibration and fine control of the lock-in amplifier
5 parameters is typically difficult to achieve in practice.” SEMICAPS, 393 F. Supp. 3d at 804-05
6 (quotations omitted). The patent then identifies a new system for testing integrated circuits that
7 improves detection sensitivity without using those conventional approaches. *Id.*

8 The court acknowledges that it is not entirely accurate to characterize the claimed method
9 as a process by which “previously undetectable response signals may be detected.” It is more
10 precise to state that the ‘982 patent claims a method that improves the detection sensitivity of
11 laser-based fault detection systems. In fact, the order repeatedly describes it as such. See *id.* at
12 804, 805, 815; see also *id.* at 810, 814 (describing SEMICAPS’s assertion that the representative
13 claims are directed to “improving fault detection sensitivity”).

14 Employing a more accurate description does not drive a different substantive outcome.
15 The court’s analysis under Alice still stands. However, in order to dispel any confusion, the court
16 will issue an amended order on Hamamatsu’s motion to dismiss that clarifies that the ‘982 patent
17 “sets forth a new system for testing integrated circuits that improves detection sensitivity of
18 response signals,” “describe[s] a method and apparatus that enable the detection of response
19 signals due to improved detection sensitivity,” describes “a method of achieving improved
20 detection sensitivity of response signals”; and “claim[s] a step-by-step method to improve an
21 existing technological process by which response signals may be detected and analyzed to
22 pinpoint the location of a fault on an electronic circuit.” See *id.* at 815.

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IV. CONCLUSION

For the foregoing reasons, Hamamatsu’s motion for leave to file a motion for reconsideration is denied.

IT IS SO ORDERED.

Dated: November 5, 2019

