IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

DSS TECHNOLOGY MANAGEMENT,
INC.,

v.

S
Civil Action No. 2:14–CV–199–RSP
TAIWAIN SEMICONDUCTOR
MANUFACTURING COMPANY,
LIMITED, et al.

S
Civil Action No. 2:14–CV–199–RSP

CLAIM CONSTRUCTION MEMORANDUM AND ORDER

DSS Technology Management, Inc. ("DSS") asserts U.S. Patent No. 5,652,084 (hereinafter the "084 patent")¹ against Taiwan Semiconductor Manufacturing Company, Limited, TSMC North America, Samsung Electronics Co., Ltd., Samsung Electronics America, Inc., Samsung Telecommunications America L.L.C., Samsung Semiconductor, Inc., Samsung Austin Semiconductor LLC, and NEC Corporation of America (collectively, "Defendants"). On March 3, 2015, the Court held a hearing to determine the proper construction of the disputed claim terms in the '084 patent. After considering the arguments made by the parties at the hearing and in the parties' claim construction briefing and charts (Dkt. No. Nos. 116, 126, 130, and 131), the Court issues this Claim Construction Memorandum and Order.



TSMC v. DSS

¹ References to the '084 patent will be made in the format, "Col:Line"

BACKGROUND

The '084 patent is entitled "METHOD FOR REDUCED PITCH LITHOGRAPHY" and is based upon an application filed October 22, 1996 and claims priority to an application filed December 22, 1994. Claims 1–7 and 10 are asserted in the litigation. Each disputed claim term is recited in the first instance in independent claim 1. Defendants assert that one disputed term is indefinite under 35 USC § 112, ¶ 2. The '084 patent is the subject of two petitions for *inter partes* review ("IPR"): one filed by Taiwan Semiconductor Manufacturing Company, LTD ("TSMC") and one filed by the Samsung Electronics Co. Both IPR petitions have been granted and a consolidated review is proceeding.

The '084 patent generally relates to the field of lithography processing for semiconductor fabrication. 1:9–12. The disclosed lithographic patterning process uses multiple exposures to provide a reduced pitch for features of a single pattern layer. Abstract. More particularly, a first imaging layer is exposed to radiation in accordance with a first pattern and developed. A second imaging layer is subsequently formed to surround the first patterned layer, exposed to radiation in accordance with a second pattern, and developed to form a second patterned layer. *Id.* The first patterned layer remains with the second patterned layer to produce a single patterned layer. *Id.* The techniques provide a reduced pitch for features, denser semiconductor devices, and smaller-sized semiconductor devices. 1:39–45.

APPLICABLE LAW

1. Claim Construction

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303,

IPR2014-01030 / TSMC-1016

Page 2 of 36



1312 (Fed. Cir. 2005) (en banc) (quoting Innova/Pure Water Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To determine the meaning of the claims, courts start by considering the intrinsic evidence. See id. at 1313; C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 861 (Fed. Cir. 2004); Bell Atl. Network Servs., Inc. v. Covad Commc'ns Group, Inc., 262 F.3d 1258, 1267 (Fed. Cir. 2001). The intrinsic evidence includes the claims themselves, the specification, and the prosecution history. See Phillips, 415 F.3d at 1314; C.R. Bard, Inc., 388 F.3d at 861. Courts give claim terms their ordinary and accustomed meaning as understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent. Phillips, 415 F.3d at 1312–13; Alloc, Inc. v. Int'l Trade Comm'n, 342 F.3d 1361, 1368 (Fed. Cir. 2003).

The claims themselves provide substantial guidance in determining the meaning of particular claim terms. *Phillips*, 415 F.3d at 1314. First, a term's context in the asserted claim can be very instructive. *Id*. Other asserted or unasserted claims can also aid in determining the claim's meaning because claim terms are typically used consistently throughout the patent. *Id*. Differences among the claim terms can also assist in understanding a term's meaning. *Id*. For example, when a dependent claim adds a limitation to an independent claim, it is presumed that the independent claim does not include the limitation. *Id*. at 1314–15.

"[C]laims 'must be read in view of the specification, of which they are a part." *Id.* (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc)). "[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Id.* (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)); *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002). This is true because a patentee may define his own

IPR2014-01030 / TSMC-1016

Pane 3 of 36



terms, give a claim term a different meaning than the term would otherwise possess, or disclaim or disavow the claim scope. *Phillips*, 415 F.3d at 1316. In these situations, the inventor's lexicography governs. *Id*. The specification may also resolve ambiguous claim terms "where the ordinary and accustomed meaning of the words used in the claims lack sufficient clarity to permit the scope of the claim to be ascertained from the words alone." *Teleflex, Inc.*, 299 F.3d at 1325. But, "'[a]lthough the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims." *Comark Commc'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (quoting *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1571 (Fed. Cir. 1988)); *see also Phillips*, 415 F.3d at 1323. The prosecution history is another tool to supply the proper context for claim construction because a patent applicant may also define a term in prosecuting the patent. *Home Diagnostics, Inc.*, *v. Lifescan, Inc.*, 381 F.3d 1352, 1356 (Fed. Cir. 2004) ("As in the case of the specification, a patent applicant may define a term in prosecuting a patent.").

Although extrinsic evidence can be useful, it is "less significant than the intrinsic record in determining the legally operative meaning of claim language." *Phillips*, 415 F.3d at 1317 (quoting *C.R. Bard, Inc.*, 388 F.3d at 862). Technical dictionaries and treatises may help a court understand the underlying technology and the manner in which one skilled in the art might use claim terms, but technical dictionaries and treatises may provide definitions that are too broad or may not be indicative of how the term is used in the patent. *Id.* at 1318. Similarly, expert testimony may aid a court in understanding the underlying technology and determining the particular meaning of a term in the pertinent field, but an expert's conclusory, unsupported assertions as to a term's definition are entirely unhelpful to a court. *Id.* Generally, extrinsic

IPR2014-01030 / TSMC-1016



evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

2. Claim Indefiniteness

Patent claims must particularly point out and distinctly claim the subject matter regarded as the invention. 35 U.S.C. § 112, ¶ 2. Whether a claim meets this definiteness requirement is a matter of law. *Young v. Lumenis, Inc.*, 492 F.3d 1336, 1344 (Fed. Cir. 2007). A party challenging the definiteness of a claim must show it is invalid by clear and convincing evidence. *Id.* at 1345. "A determination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims." *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1347 (Fed. Cir. 2005) (citations and internal quotation marks omitted), abrogated on other grounds by *Nautilus v. Biosig Instruments, Inc.*, 134 S. Ct. 2120 (2014).

The definiteness standard of 35 U.S.C. § 112 ¶2 requires that:

a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable. The standard we adopt accords with opinions of this Court stating that "the certainty which the law requires in patents is not greater than is reasonable, having regard to their subject-matter.

Nautilus, Inc., 134 S. Ct. at 2129–30 (internal citations omitted).

AGREED TERMS

The parties have agreed to the following terms. (Dkt. No. 131–1 at 1–3.)

Term	Agreed Construction
"first imaging layer"	"a first layer of photoresist or other radiation- sensitive material"
"second imaging layer"	"a second layer of photoresist or other radiation- sensitive material"



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

