

United States District Court,  
E.D. Texas, Sherman Division.

**STMICROELECTRONICS, INC,**  
v.  
**SANDISK CORPORATION v. N. V.**

No. 4:05CV45

**June 20, 2006.**

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***REPORT AND RECOMMENDATION OF UNITED STATES MAGISTRATE JUDGE***

**DON D. BUSH, United States Magistrate Judge.**

On April 10-11, 2006, the Court held a Claim Construction hearing in the above titled matter. The Court hereby construes the disputed claims as follows.

***APPLICABLE LAW***

"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, 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). In claim construction, courts examine the patent's intrinsic evidence to define the patented invention's scope. *See id.*; 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). This intrinsic evidence includes the claims, 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 customary 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. Claims "must be read in view of the specification, of which they are a part." *Id.* at 1315. (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 978 (Fed.Cir.1995)). "[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 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.* Also, the specification may 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; *Renishaw PLC v. Marposs Societa' Perazioni*, 158 F.3d 1243 (Fed.Cir.1998). But, "although 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); *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 is entirely unhelpful to a court. *Id.* Generally, extrinsic evidence is "less reliable than the patent and its prosecution history in determining how to read claim terms." *Id.*

The patent in suit also contains means-plus-function limitations that require construction. Where a claim limitation is expressed in "means plus function" language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. s. 112, para. 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed.Cir.1997). In relevant part, 35 U.S.C. s. 112, para. 6 mandates that "such a claim limitation 'be construed to cover the corresponding structure ... described in the specification and equivalents thereof.'" *Id.* (citing 35 U.S.C. s. 112, para. 6). Accordingly, when faced with means-plus-function limitations, courts "must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations]." *Id.*

Construing a means-plus-function limitation involves multiple inquiries. "The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation."

Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc., 248 F.3d 1303, 1311 (Fed.Cir.2001). Once a court has determined the limitation's function, "the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof." *Id.* A "structure disclosed in the specification is 'corresponding' structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim." *Id.* Moreover, the focus of the "corresponding structure" inquiry is not merely whether a structure is capable of performing the recited function, but rather whether the corresponding structure is "clearly linked or associated with the [recited] function." *Id.* See also, B. Braun Med., Inc. v. Abbott Labs., 124 F.3d 1419, 1424 (Fed.Cir.1997). Furthermore, the corresponding structure must only be that which actually performs the specified function and not merely enables the corresponding structure to operate as intended. Asyst Technologies, Inc. v. Empak, Inc., 268 F.3d 1364, 1371 (Fed.Cir.2001)

### ***CLAIM CONSTRUCTION***

U.S. Patent No. 6,259,626

#### ***Disputed Term:***

"reading simultaneously each one of said eight bits which belong to each one of said n bytes"

#### ***Court's Construction***

**"sensing simultaneously each of the memory cells in a single step so as to sense the bits of all n bytes in n steps"**

U.S. Patent No. 6,643,184

#### ***Disputed Term:***

"a single erasing pulse to a selected well and at least one selected word line"

#### ***Court's Construction:***

**"application of biasing conditions occurring at a single point in time to a selected well and at least one selected word line"**

#### ***Disputed Term:***

"applying a single erasing pulse to a selected well and at least one selected word line to thereby erase each memory cell connected thereto and without an intermediate check of completion of erasure"

#### ***Court's Construction:***

**"applying erasing conditions to thereby, discharge the floating gates of the transistors ... without verification that the threshold voltage of the transistors is less than a pre-set value after application of erasing conditions and before a second potential application of erasing conditions"**

#### ***Disputed Term:***

"plurality of wells."

*Court's Construction:*

**"more than one well, each such well having a given conductivity type."**

U.S. Patent No. 5,073,816

*Disputed Term:*

"a package which encloses the at least one semiconductor chip"

*Court's Construction:*

No construction necessary.

*Disputed Term:*

"a first level interconnect comprising a printed circuit which overlies the at least one semiconductor chip in the package and extends externally of the package to provide a plurality of outer leads"

*Court's Construction:*

**"two or more electroconductive tracks carried on an insulating material which lies over the semiconductive chips and extends outside of the package to provide a plurality of outward leads"**

*Disputed Term:*

"a second level interconnect comprising means for electrically connecting the chip bonding pads to selected contacts on the printed circuit, which contacts overlie the at least one semiconductor chip."

*Court's Construction:*

**"an arrangement of electrical connections"**

The Court further adopts ST's proposed construction of the "means plus function" clause and holds that the corresponding structure is bond wires 38 shown in figure 4 and equivalents.

*Disputed Term:*

"Contact"

*Court's Construction:*

**"via or bond pad"**

*Disputed Term:*

"Flexible"

***Court's Construction:***

**"capable of being bent"**

***Disputed Term:***

"electroconductive tracks"

***Court's Construction:***

No construction is necessary. The term is clear as stated.

U.S. Patent No. 4,698,720

***Disputed Term:***

"a first reference potential line"

***Court's Construction:***

**"a DC voltage supply line"**

***Disputed Term:***

"a second reference potential line:

***Court's Construction:***

**"a DC voltage supply line lower from the first reference potential line"**

***Disputed Term:***

"a first protection section"

***Court's Construction:***

**"a protection circuit that conducts current toward the power supply"**

***Disputed Term:***

"first switching means having a first input terminal and a first output terminal and defining a first unidirectional line for conducting current from said first output terminal when the voltage drop from said first input terminal to said first output terminal of said first switching means exceeds a preset value defining a device upper threshold voltage value"

***Court's Construction:***

The parties have agreed on the claimed function.

**"a MOS transistor 21 of the enhancement type which is diode connected and equivalents thereof."**

***Disputed Terms:***

"first input terminal" "first output terminal" "a first unidirectional line"

***Court's Construction:***

The Court finds that no construction is necessary on these terms.

***Disputed Term:***

"a second protection section"

***Court's Construction:***

**"a protection circuit that conducts current from the power supply"**

***Disputed Term:***

"second switching means having a second input terminal, a second output terminal and a further reference terminal and defining a second unidirectional line for conducting current from said second input terminal to said second output terminal when the voltage drop from said further reference terminal to said second output terminal exceeds a further preset value defining a device lower threshold voltage value"

***Court's Construction:***

**"a pair of MOS transistors 22 and 23 of the depletion type and forming an inverter. To the output of that inverter there is then connected a MOS transistor 24 of the enhancement type the source terminal whereof is connected to the inverter input and equivalents thereof."**

U.S. Patent No. 4,839,768

***Disputed Term:***

"protection diode"

***Court's Construction:***

**"a 2 terminal semiconductor device that permits current flow in one direction when a cut-in voltage is reached to protect the device and inhibits current flow in the opposite direction and its equivalents"**

***Disputed Term:***

"common potential node"

***Court's Construction:***

**"the ground or supply voltage pad"**

*Disputed Term:*

"k"

*Court's Construction:*

**"a constant that is dependent upon the characteristics of the test apparatus as well as being dependent upon the intrinsic characteristics of the integrated circuit being tested"**

*Disputed Term:*

"common potential node"

*Court's Construction:*

**"a ground or supply voltage pad"**

*Disputed Term:*

"a limiting diode"

*Court's Construction:*

**"a two terminal semiconductor device that permits current flow in one direction when a cut-in voltage is reached to limit the voltage to the device and inhibits current flow in the opposite direction"**

*Disputed Term:*

"first common potential node"

*Court's Construction:*

**"a ground or supply voltage pad"**

*Disputed Term:*

"a second limiting diode"

*Court's Construction:*

**"a two-terminal semiconductor device that permits current to flow in one direction when a cut-in voltage is reached to limit the voltage to the device and inhibits current flow in the opposite direction"**

*Disputed Term:*

"a second common potential node"

*Court's Construction:*

**"one of the ground or supply voltage pads, which is not the first common potential node"**

*Disputed Term:*

"a voltage limiting diode"

*Court's Construction:*

**"a two-terminal semiconductor device that permits current flow in one direction when a cut-in voltage is reached to limit the voltage to the device and inhibits current flow in the opposite direction"**

U.S. Patent No. 5,719,808

*Disputed Term:*

"clearing the tags"

*Court's Construction:*

**"resetting the bits so that the bits no longer indicate that the respective sector associated with each bit is selected for erasure"**

*Disputed Term:*

"a logic circuit configured to address and enable for erasure, in response to signals from the controller, any combination of a plurality of but less than all of said multiple sectors"

*Court's Construction:*

**"a logic circuit configured to select and enable for erasure, in response to signals from the controller, any combination of at least two but less than all sectors; each combination must consist of at least two but less than all sectors"**

*Disputed Term:*

"erase together all the enabled sectors"

*Court's Construction:*

**"erase all of the selected sectors as a group in response to a single erase initiation command from the controller"**

*Disputed Term:*

"register associated with individual ones of the sectors to tag the respective sector as enabled for erasure"

*Court's Construction:*

**"register in one-to-one correspondence with an individual sector in memory to uniquely identify its associated sector as enabled for erasure"**



*Disputed Term:*

"clearing tags"

*Court's Construction*

**"resetting the bits so that the bits no longer indicate that the respective sector associated with each bit is selected for erasure"**

*Disputed Term:*

"a logic circuit configured to enable erasure of any one of multiple different combinations of a plurality of but less than all of said multiple sectors"

*Court's Construction:*

**"a logic circuit that can enable for erasure at least two different combinations of sectors; each combination must consist of at least two but less than all sectors and its equivalents"**

*Disputed Term:*

"erase together all the enabled sectors"

*Court's Construction:*

**"erase all of the selected sectors as a group in response to a single erase initiation command"**

*Disputed Term:*

"plurality of registers that individually contain a tag indicating whether an associated sector is enabled for erasure or not"

*Court's Construction:*

**"plurality of registers in one-to-one correspondence with individual sectors in memory to uniquely identify their associated sectors as enabled for erasure"**

*Disputed Term:*

"clearing tags"

*Court's Construction:*

**"resetting the bits so that the bits no longer indicate that the respective sector associated with each bit is selected for erasure"**

*Disputed Term:*

"combinations"

*Court's Construction:*

"combination"

U.S. Patent No. 6,100,581

*Disputed Term:*

"registration means of the printed circuit located externally of the package for enabling the outer leads to be registered onto a substrate"

*Court's Construction:*

**"Relevant Corresponding Structure: the ends of the printed circuit 8 provided with registration holes 22 (or 86) and equivalents thereof"**

**Function: enabling the outer leads to be registered onto a substrate**

U.S. Patent No. 5,583,812

*Disputed Term:*

"simultaneously comparing a resulting level of an electrical parameter of the addressed cell with a number of reference levels of two or more"

*Court's Construction:*

The Court finds that this claim needs no construction.

*Disputed Term:*

"programming means operably connected to said array for altering the charge on the floating gate of an addressed cell until its said effective threshold voltage is substantially equal to one of a plurality of effective threshold voltage levels in excess of two corresponding to a plurality of individual detectable states in excess of two"

*Court's Construction:*

**"Corresponding Structure: programming control circuit, word line program/read pulse generator, bit line program pulse generator and its equivalents"**

*Disputed Term:*

"means operably connected to said array for determining the amount of current that flows through an addressed cell"

*Court's Construction:*

**"Corresponding Structure: sense amplifiers and its equivalents"**

***Disputed Term:***

"means including a number of sense amplifiers of two or more for simultaneously comparing the amount of current flowing in an addressed cell with said number of reference current levels, whereby the state of an addressed cell is rapidly read"

***Court's Construction:***

**"Corresponding Structure: plurality of sense amplifiers, plurality of reference current sources producing different reference levels and its equivalents"**

***OBJECTIONS***

Within ten (10) days after receipt of the magistrate judge's report, any party may serve and file written objections to the findings and recommendations of the magistrate judge. 28 U.S.C.A. s. 636(b)(1)(C).

Failure to file written objections to the proposed findings and recommendations contained in this report within ten days after service shall bar an aggrieved party from *de novo* review by the district court of the proposed findings and recommendations and from appellate review of factual findings accepted or adopted by the district court except on grounds of plain error or manifest injustice. *Thomas v. Arn*, 474 U.S. 140, 148, 106 S.Ct. 466, 88 L.Ed.2d 435 (1985); *Rodriguez v. Bowen*, 857 F.2d 275, 276-77 (5th Cir.1988).

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