United States District Court,
N.D. California.

SUNRISE TELECOM INCORPORATED, a Delaware corporation,
Plaintiff.
v.
ACTERNA, LLC, a Delaware limited liability company,
Defendant.

No. C 04-1601 FMS

April 7, 2005.

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TENTATIVE CLAIM CONSTRUCTION ORDER

FERN M. SMITH**, District Judge.**

This case deals with the alleged infringement of two patents. Plaintiff Sunrise has asserted that Acterna has infringed its patent, number 5,619,489 ("489"), and Acterna has counterclaimed that Sunrise has infringed its patent, number 5,751,766 ("766").

The parties presented oral argument addressing the proper construction of five disputed claim terms per patent at the *Markman* hearing held on March 25, 2005. The Court has considered the oral argument, written briefs, supporting declarations and exhibits and hereby issues its tentative order construing the disputed language in the '489 and '766 patents. This tentative order will be adopted as the claim construction ruling unless one of the parties files a written request for a hearing within fifteen (15) days of this tentative order. If one of the parties requests a hearing, the parties are to meet and confer regarding a date for the hearing and then schedule it with the courtroom deputy (415-552-3018). The Court does not anticipate taking any further evidence on the construction but would give each side forty-five minutes to explain why changes should or should not be made to the tentative ruling.

I. CLAIM CONSTRUCTION LEGAL STANDARD

Patent claim construction and interpretation is a question of law, determined by the Court. Markman v. Westview Instrs., Inc., 52 F.3d 967, 970-71 (Fed.Cir.1995) (*en banc*), *aff'd,* 517 U.S. 370 (1996). To properly construe the terms, a court first looks to the intrinsic evidence, including the wording of the claims and the specifications and drawings. *See* Interactive Gift Express, Inc. v. Compuserve, Inc., 256 F.3d 1323, 1331 (Fed.Cir.2001). Claim terms should be understood and construed in the context of one another. Apex, Inc. v. Raritan Computer, Inc., 325 F.3d 1364, 1371 (Fed.Cir.2003). At claim construction, words should be given their ordinary meanings, unless the patent specifications clearly indicate otherwise. Quantum Corp. v. Rodime, PLC, 65 F.3d 1577, 1580 (Fed.Cir.1995). Further, a claim term must not be narrowed unless the

patent language clearly narrows the scope of the meaning. *See* SunRace Roots Enter. Co. v. SRAM Corp., 67 USPQ2d 1438, 1442-43 (Fed.Cir.2003). Only after the Court considers intrinsic evidence may it resort to the extrinsic, i.e. expert testimony, treatises and other materials. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1308 (Fed.Cir.1999).

II. CONSTRUCTION OF CLAIM TERMS

'489 Patent

The '489 Patent is related to a testing system for high-speed, digital communication networks. The parties have addressed the construction of five separate claim terms, discussed below.

Claim Term 1	Construction
Configuration of a Communication Transmission Network	The characteristics of the network that define its logical operation. These characteristics include, but are not limited to, the type of framing used, the type of multiplexing used, the level or amplitude of the signal at its assigned port and the channel(s) on which broadcast data is transmitted or received.

The parties agree on the beginning of Sunrise's proposed construction, but disagree on the inclusion of the several examples, specifically the inclusion of the channel on which broadcast data is transmitted ("the channel on which test data is transmitted or received"). Acterna Brief at 12. Acterna argues that, even though the framing, multiplexing and amplitude of the signal can all be appropriately considered characteristics of the network, the "channel on which broadcast data is transmitted or received" is not part of the network, but part of the testing configuration. As described at oral argument, Sunrise has not included the *channels* included in the digital signal, it has specified the channel *used for testing*. *See also* Acterna Brief at 12. According to Acterna's interpretation, the channel isolated for testing should not be identified as part of the more general configuration of the network. *Id*. at 13. The Court agrees.

The Court's construction includes the portion on which both parties agree, the examples that refer to the network generally, and modifies the channel example so that it reflects the channels of the network generally, not the specific channel where the testing takes place.

Claim Term 2	Construction
User Input Device for Inputting Operating Instructions to Said Microprocessor; Said Operating Instructions Including a Configuration of a Communication Transmission Network.	A device that allows an operator to input operating instructions into the device. Examples include, but are not limited to, a keypad, function keys, keyboard, mouse, or wand.

Acterna's argument fails to rebut the presumption against a means-plus-function interpretation. "User input device," in light of the entire patent, demonstrates a definite structure. Additionally, the Court' proposed instruction is consistent with Judge Whyte's earlier construction of this same term. *See Sunrise Telecom, Inc., v. Electrodata, Inc.,* Case No. C-97-20666.

Last, to address Acterna's inquiry at oral argument, the Court sees no reason to entertain equivalents arguments; thus no additional briefing is required for the construction of this claim term.

Claim Term 3	Construction
Updating Said Configuration According to Said Change; Wherein Said Configuration is Displayed as Said Configuration is Being Changed	Producing, and storing, a graphical illustration of the characteristics of the network that define its logical operation while such characteristics are being altered.

The Court agrees, for the reasons set forth by Acterna, that storage must be a function of updating in order to differentiate it from the term inputting. This construction appropriately construes the term in context. *See* Apex, 325 F.3d at 1371.

Claim Term 4	Construction
Graphical Display Showing Said Configuration as Said Configuration is Being Input	A display capable of generating both graphical and textual images. The graphical display includes characteristics of the tester that match the characteristics of the network that define its logical operation. These characteristics include, but are not limited to, the type of framing used, the type of multiplexing used, the level or amplitude of the signal at its assigned port, the channel on which test data is transmitted or received, and the channel on which broadcast data is transmitted or received. The graphical display, reflecting the characteristics of the tester, is updated to match the characteristics of the network that define its logical operation while the characteristics are entered.

First, a common sense understanding of graphical display would include both pictures and text. As discussed at oral argument, a pictorial map without text labeling would provide little use. Thus, both text and graphics are necessary in order to convey "said configuration."

Second, Sunrise uses the terms "graphical illustration" and "graphical display" virtually identically. *See* Sunrise Brief at 5, 10. As argued by Acterna, the word "illustration" generally implies pictorial representation. Thus, the Court modifies Sunrise's proposed definition to replace "graphical illustration," with "graphical display" in order to reduce this potential confusion.

Third, although a functional tester must match the configuration of the network to test successfully, a user's changes to the tester do not change the configuration of the network. Rather the changes made to the tester change the characteristics of the tester so that it, ideally, matches the network.

Claim Term 5	Construction
Graphical Editing of Said Configuration	Providing commands that alter the characteristics of the network that define its logical operation by modifying a graphical display of the network.

A fundamental characteristic of the patent is allowing a user to configure the tester by using a graphical interface that includes both pictorial and text elements. This understanding is consistent with the other terms construed for this patent.

Again, the Court replaces the term "graphical illustration" with "graphical display."

'766 Patent

The '766 patent relates to a test instrument designed to non-invasively test the performance of a digital communication system by detecting the difference between a signal sent and a signal received. The difference between signals is the result of interference, caused by a variety of possible sources. The tester calculates statistics related to the differences in signals that are helpful to resolving this interference or noise.

The parties have addressed the construction of five terms related to the '766 patent litigation. Each of these are discussed below.

Claim Term 1	Construction

Ideal Modulation Signal	A pair of I and Q values which correspond to a digital signal, represented as one of a set of predefined ideal points on a constellation chart.

The patent teaches that the constellation points convey signal values, both ideal and estimated. The patent language specifies that it is the "points in the coordinate space represented by the graph ..." that are conveyed. '766 patent 5 :35-39. The chart provides an example of an idea that has been adequately reduced to a practical application, i.e., the communication of digital signals, thus making it patentable. *See* State Street Bank and Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368, 1373 (Fed Cir, 1998) (asserting that mathematical equations are abstract unless reduced to a practical purpose).

For consistency between terms, and because the testing process compares the ideal to the estimated signal, it is reasonable that both terms specify digital data.

Claim Term 2	Construction
Estimated Modulation Signal	A pair of I and Q values identifying a point on a constellation chart and corresponding to the transmitted digital data that was distorted.

The parties have conceded that there is virtually no difference between the x and y representation and the I and Q representation. Because the ideal modulation signal has been defined in terms of I and Q values, the construction for the estimated modulated signal should follow suit.

Claim Term 3	Construction
A Symbol Decoder that Translates a Representation of Said Estimated Modulation Signal Output into Estimates of Said Digital Data	A decoder that converts a point on a constellation chart (which represents the estimated modulation signal) into a reconstruction of originally transmitted data.

Sunrise has failed to rebut the presumption that means-plus-function does not apply to this term. The inclusion of the symbol decoder represents sufficient corresponding structure to the function of converting estimated modulation signals into digital data. *See* Chin Decl. Exh. H.; Acterna Brief at 20. Further, the orthogonal chart and I and Q values are not mere abstractions, but have been reduced to a practical purpose.

Acterna's proposed definition is consistent with the other claim terms specifically in how it discusses the representation of signals as I and Q values, and addresses the estimated signal as a representation of the original digital signal.

Claim Term 4	Construction
A Difference Signal Generator that Generates an Ideal Difference Signal Between Said Ideal Modulation Signal and Said Estimated Modulation Signal as an Estimate of an Interfering Signal, Said Difference Signal Being Resolved into Orthogonal Components	A signal generator that generates a pair of I and Q values corresponding to the difference between the ideal modulation signal and estimated modulation signal.

The specifications only refer to a difference, not the specific subtraction of one value from another. Further, Sunrise has failed to rebut the presumption against a means-plus-function analysis.

Claim Term 5	Construction
Calculating Statistics of Said Difference Signal Using Said Orthogonal	Using the diagnostic processor and the received I and Q values of the difference signal to calculate statistics for the purposes of diagnosing the communication channel. The diagnostic processor is a processor that performs calculations to

| Components Using Said Diagnostic Processor | diagnose a communication channel. Statistics are a mathematical calculation/numerical analysis of a set of data that characterize the data set. |

The "I and Q values received" is clear in light of the earlier terms, specifically in light of term 4 that defines the calculation of the difference signal. "The separation of the I and Q values," proposed by Acterna, however, is unclear, and not adequately defined by the specifications or other claim terms. *See* Phonometrics, Inc. v. Northern Telecom Inc., 133 F.3d 1459, 1465 (Fed.Cir.1998) (asserting that elements of a claim must be understood in light of the entire claim and patent specifications). Finding that the patent specifications, along with the claim language itself, fail to describe this separation, the Court excludes this language from the definition. *See* Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996).

Understood in context of the claims, the diagnostic processor is linked to the diagnosis of a particular channel. Acterna Brief at 23. Thus, in light of defining the terms in context, the Court adopts Acterna's argument that the processor diagnoses a particular channel.

III. CONCLUSION

The Court construes the subject term definitions for both the '489 and '766 patents, for the reasons articulated above, and issues this ORDER subject to possible amendment, as set forth on page one of this Order.

IT IS SO ORDERED

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