United States District Court,
N.D. Texas, Dallas Division.

TEXAS DIGITAL SYSTEMS,
INC. Plaintiff.
v.
TELEGENIX,
INC. Defendant.

No. Civ.A. 3:98CV1537-BF

Dec. 6, 2000.

MEMORANDUM OPINION AND ORDER

STICKNEY**, Magistrate J.**

This matter came on regularly before the Court for a *Markman* hearing. Plaintiff, Texas Digital Systems, Inc., is the owner of four (4) patents: U.S. Letters Patent Nos. 4,734.619 ("619 Patent"); 4,804,890 ("890 Patent"); 4,485,481 ("481 Patent"); and 4,965,561 ("561.Patent").

Defendant, Telegenix, Inc., markets electronic display devices. Plaintiff alleges the Defendant's product infringes on its patent.

On July 2, 1998, Plaintiff filed a complaint alleging that Defendant Telegenix, Inc. infringed on claims on the following patents: Claim One of the 619 Patent, Claim Four of the 890 Patent, Claims One through Four and Seven of the 481 Patent, and Claims One through Four of the 561 Patent. On December 21, 1998. Telegenix filed an answer and a counterclaim denying infringement and asserting the affirmative defenses of invalidity and unenforceability. On March 8, 2000, the Court held a hearing in accordance with Markman v. Westview Instruments. Inc., 116 S.Ct. 1384 (1996), to construe the disputed terms of the four patents in question. The following is the Court's construction of those disputed claims.

I.

Factual and Procedural Background

The Court draws the following facts from the Memorandum, testimonial, and other evidence submitted by the parties in connection with the *Markmam* hearing held on March 8, 2000. The inventor of the devices that are the subject of these claims is Karel Havel; consequently, these patents are often referred to as the "Havel Patents." The 619 Patent, filed on July 7, 1986, relates to a variable color display device. The patent was issued on March 29, 1998 and the inventor is Karel Havel, P.O. Box 66, Station M, Toronto, Ontario, Canada. The patent is entitled "Display Device with Variable Color Background." The abstract states as follows:

A variable color display device includes a plurality of variable color display areas arranged in a pattern and substantially surrounded by a variable color background area The color of the background area is controlled to be substantially complimentary to the color of the display areas to make the exhibited character clearly stand out against its background.

The summary of the invention in the 619 Patent states accordingly:

It is the principle object of this invention to provide an improved variable color display device capable of illuminating its display areas in substantially any color of the spectrum and its background area in a complimentary color for providing better recognition of exhibited characters. It is another object of the invention to provide a variable color display device that exhibits characters in an aesthetically pleasing and harmonious manner. In summary, variable color display devices of this invention include a plurality of variable color display segments arranged in a pattern and surrounded by a variable color background area. The displayed character may be illuminated in a desired color, and its background area may be illuminated in a color substantially complimentary to more effectively exhibit the character. Further objects of the invention will become obvious from the accompanying drawings and their descriptions.

The claim in dispute in this litigation is Claim One of the 619 Patent. Claim One is the culmination of the rejection of Claims One through Fourteen, the added claims of Fifteen and Sixteen, and the application of Claim Fifteen ultimately issuing as Claim Number One in the 619 Patent.

II.

Description of the 619 Patent Claim

Texas Digital Systems's 619 Patent is for a "novel variable color display device having variable color display areas and background areas, allowing the variable color background area to highlight the displayed characters." This 619 Patent consists of a variable color display device comprised of a plurality of variable color display areas arranged in a *pattern*. Each said *display area* includes a plurality of display *light sources* for emitting upon activation light signals of different colors and is a *means for combining* said light signals to obtain a composite light signal of a composite color. The *background area* is a variable color background substantially surrounding the said display areas and includes a plurality of background regions adjacent to the display areas. Each of these background regions includes a plurality of light sources for emitting, upon activation, light signals of different colors and means for combining said light signals to obtain a composite light signal of a composite color. A plurality of opaque walls optically separate the background regions from adjacent display areas. The display device provides a *means for selectively activating* the said display light sources and the background light sources to illuminate certain display areas in a first color and the background regions in a second color different from the first color. Thus, the device highlights the displayed characters from the background. The meaning of the following terms in Claim One of the 619 Patent are in dispute as to their meanings: pattern, light sources, means for combining, display areas, background areas, and means for selectively activating.

At the hearing before this Court on March 8 through 10, 2000, both Plaintiff and Defendant presented testimony of expert witnesses as well as numerous exhibits. Plaintiff presented the testimony of Mr. Cooper, who was qualified as an expert in the area of discerning the meanings of claim terms. Defendants presented the testimony of Mr. So Sher, as well as Mr. Bliss, a patent attorney, whose years of experience qualify him as a patent expert.

III.

Discussion

Claim Construction is a matter for the court. Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995) (*en banc*), *aff'd,* 517 U.S. 370 (1996). Claims are construed from the vantage point of a person of ordinary skill in the art at the time of the invention. Id. at 986. In construing a claim, a court looks first to the intrinsic evidence of record, namely, the language of the claim, the specification, and the prosecution history. *Instituform Tech*. Inc. v. Cat Contracting, Inc., 99 F.3d 1098, 1105 (Fed.Cir.1996). The claim language itself defines the scope of the claim and "a construing court does not accord the specification, prosecution history, and other relevant evidence the same weight as the claims themselves, but consults these sources to gain the necessary context to the claim language." Eastman Kodak Co. v. Goodyear Tire & Rubber Co., 114 F.3d 1547, 1552 (Fed.Cir.1997) (overruled on other grounds by Cybor Corp. v. FAS Technologies, Inc. 138 F.3d 1448 (Fed.Cir.1998)); *see also* J.T. Easton & Co. V. Atlantic Paste & Glue Co., 106 F.3d 1563, 1568 (Fed.Cir.1998) (Because "[the disputed claim term] is a term with no previous meaning to those of ordinary skill in the prior art[,] [i]ts meaning, then must be found [elsewhere] in the patent."); Johnson Worldwide Assocs. Inc. v. Zebco Corp., 175 F.3d 985 (Fed.Cir.1999). Although extrinsic evidence such as expert testimony may be considered if needed to assist the court in understanding the technology at issue or in determining the meaning or scope of technical terms in a claim, Hoechst Celanese Corp. v. BP Chems. Ltd ., 78 F.3d 1575, 1579 (Fed.Cir.), *cert denied,* 519 U.S. 911 (1996), reliance on any extrinsic evidence is improper where the public record, *i.e.,* the claims, specifications, or file history, unambiguously define the scope of the claims. Vitronics Corp. v. Conceptronic, Inc, 90 F.3d 1576, 1583 (Fed.Cir.1996).

Although the Court of Appeals for the Federal Circuit has held that claims should be read in view of the specification, *see, e.g.,* id. at 1582, the court has repeatedly cautioned against limiting the scope of a claim to the preferred embodiment or the examples listed in the specification. *See e.g.,* Ekchian v. Home Depot, Inc., 104 F.3d 1299, 1303 (Fed.Cir.1997); *see also* Intervet America, Inc. v. KeeVet Laboratories, Inc., 887 F.2d 1050, 1053 (Fed.Cir.1989) ("[L]imitations appearing in the specification will not be read into claims, and ... interpreting what is meant by a word in a claim 'is not to be confused with adding an extrancous limitation appearing in the specification, which is improper." ' (Citation omitted.)

Courts presume "a difference in meaning and scope when different words or phrases are used in separate claims." United States v. Telectronics, Inc., 857 F.2d 778, 783 (Fed.Cir.1988). There is a presumption against construing claims as being so similar as to "make a claim superfluous." *Id.*

The following definitions are provided for the disputed terms of the 619 Patent:

A. Pattern

A variable color display device includes a plurality of variable color display areas arranged in a *pattern*.

Plaintiff, Texas Digital Systems, Inc., alleges that the proper interpretation of the word pattern encompasses not only a seven segment display and matrix array, but any type of systematic arrangement of pixels. The Defendant alleges that the term pattern is limited to the seven segment font. The starting point for any claim construction must be the claims themselves. *Pitney Bowes,* 182 F.3d at 1305. Envirotech Corp. v. Al George, Inc., 730 F.2d 753, 759 (Fed.Cir.1984). In looking at the strict words of the claim, the claim states as follows:

In the patent language description of the prior art, Havel states in his 619 Patent:

A display device that can change color and selectively exhibit characters as described in my U.S. Patent No 4,086,514 entitled "Variable Color Display Device" and issued on April 25, 1978. This display device includes display areas arranged in a suitable display font, such as well-known seven segment font, which may be selectively energized in groups to exhibit all known characters.

This language specifically informs the public and a person of ordinary skill in the art, at the time of the filing of the patent application, this was not a limiting term, but rather an expansive term giving an example, as opposed to a limitation on the patent. Further, Mr. Cooper, who was admitted as a person of ordinary skill in the art at the time of the invention, has defined the word pattern in his testimony and in his chart exhibit, Exhibit 81. as having a systematic arrangement. The defendant in its argument relies upon the 514 Patent as well as the file wrapper on the 619 Patent. However, the reliance upon the examiner's refusal to accept original Claims One through Eight and Claims Nine through Fourteen is misplaced. The Court finds that pattern is defined as having a systematic arrangement.

B. Light Sources

The Court, in reviewing all of the evidence submitted, finds that the term light sources in the context of the claims and specification is limited to light-emitting diodes and their equivalents.

C. Means for Combining

The claimed element means for combining refers to a number of different light sources. These include transparent light scattering material, LED proximity, and the shape of the light-blending cavity, including the angle and texture of the walls. The Court rules that these, any of which, but not all, combined, can be a means for combining light signals to obtain a composite light signal of a composite color. The means for combining must combine light signals to obtain a composite light signal of composite colors interpreted by the observer. There are a number of different types of combinations that can perform this function.

D. Display Areas and Background Areas

The invention in question is a display device that presents a display area and a background area, each capable of emitting light of different primary colors. Telegenix attempts to limit the display area to a seven-segment font because a seven-segment font is given as an example in the inventor's language; however, the Court does not follow this logic as the seven-segment font was mentioned by the inventor merely as an example. Therefore, the Court adopts the definition that the display area includes any illuminated pixel anywhere on the display device with background pixels illuminated to substantially surround the illuminated display area pixels. There is no claim limitation that limits the display area. As the image for the illuminated display area changes, so does the adjacent illuminated background area.

E. Means for Selectively Activating

In the defining the means for selectively activating. Plaintiff and Defendant disagree only in that the Defendant argues that the definition must be limited to this particular structure and equivalents of this structure as found in Figure 4. However, there are other structural components and they are included in all Figures 3, 5-6, and Figure 4. Therefore, the court finds that the means for selectively activating controls

activation of light sources to illuminate the display area in the first color and the background in the second color, different from the display area's first color. The function is to activate the display area by passing current through selected light sources of the display area and the background area. The structural components are specified in Figures 3, 4, 5, and 6.

IV.

Construction of Claim for the 890 Patent

There are a number of terms in the 890 Patent that have already been addressed as they are found in the 619 Patent. However, the additional terms are defined by this Court as follows:

A. First Means for Carrying Selective Display Colors Control Signals

The first means for carrying includes functions that are performed by electrical paths which are non-inverting buses for the red, green, and blue LEDs. Figure 3 at 23-30 shows a non-inverting red bus, a non-inverting green bus, and a non-inverting buffer. There appears to be no major dispute between the Plaintiff and Defendant regarding the definition of this term.

B. Converter Means

Converter means for carrying includes any firmware, software, and/or hardware that functions to carry complimentary color control signals.

C. Control Means

Control Means includes any firmware, software, and/or hardware that functions to selectively couple the light sources in the display areas; Control means means a multiplexer

D. Multiplexer

Multiplexers serve to selectively couple each display area of a display device to non-inverting and inverting buses in order to illuminate the display areas with either the desired color or a substantially complimentary color in accordance with the outputs of the decoder The decoder output is respectively coupled to the display areas. The multiplexer simultaneously couples the display areas to the display control bus and couples the converted display signal to the background areas of the display device

E. First Means for Carrying Selected Display Color Signals

The First Means for Carrying includes any firmware, software, and/or hardware that functions to carry the information which determines the display area (character) color.

The Selective Display Color Control Signals are the signals that ultimately cause groups of the display areas to illuminate in a selected color

F. Second Means for Carrying Selected Display Color Signals

The Second Means for Carrying includes any firmware, software, and/or bardware that function to carry complimentary color control signals.

G. First Means for Causing and Second Means for Causing

The Plaintiff argues that the first and second means for causing includes any firmware, software, or hardware that functions to combine the complimentary color information. However first means for causing is defined as the first means for causing certain parts of the display area to illuminate in specific colors, defined by the display color or control signals. The second means for causing is defined as the second means for causing the remaining display areas to illuminate in substantially complimentary color defined by the complimentary color control signals.

H. Decoder Means

The definition of Decoder Means is not an issue at bar, however, it is mentioned in the Defendant's *Response* to Plaintiff's *Claim of Construction*. In the response, Defendant acknowledges that, to the extent that the 890 Patent requires a decoder means. Texas Digital Systems is entitled to an interpretation of this claim element that comprehends any "hardware, firmware, and or software that performs the function of developing output signals corresponding to input codes." The court need not review this matter further.

V.

Analysis of the Claims in the 481 Patent

Although Defendant does not object to numerous terms used in this patent, the following terms are in dispute:

A. Repeatedly, Substantially, Simultaneously Activating

Plaintiff argues that the term repeatedly, substantially, simultaneously activating relates to a feature that was originally claimed as repetitively activating the first and second primary color buses for selective time intervals. The term repeatedly means "repeating" in its ordinary sense, and that the repetitions be fast enough such that the composite color is actually perceived by the viewer. The term substantially, simultaneously activating means that during some portion of this period (defined as repeatedly), the two separate lights are on at the same time. Depending on the wave form, this can illuminate a different color.

B. Substantially Constant Amplitude

The term substantially constant amplitude means applying the voltage or the wave forms or current pulses of a constant amplitude to cause the light source to emit light of different primary colors.

C. Color Control Means

The term color control means in the 481 Patent is the structure that performs as disclosed in the specification of the display decoder and the decoder driver.

The remaining claims in the 481 Patent include light-emitting diodes, decoder, first bus and second bus, which are defined and are not in dispute by the parties.

VI.

Construction of the Claims of the 561 Patent

The invention of the 561 Patent relates to a variable color *optical device* and includes a plurality of *light sources* for emitting, upon activation, light signals of different primary colors and means for combining the light signals to obtain a composite light signal of a composite color. This invention also includes the terms means for repeatedly activating the light sources, and substantially, simultaneously applying the pulses, constant amplitude for causing light sources to emit light signals of different primary colors and color control means. Such terms should be construed as having the same meanings as in the 619, 890, and 481 Patents.

A. Optical Devices

An optical device is a device that is capable of emitting light.

B. Light Sources

The term light sources has been previously explained and defined.

C. First Means for Carrying Selective Display Color Control Signals

This is defined as the signals that ultimately cause groups of the display areas to illuminate in a selected color. Control signals include any firmware, software, and/or hardware that selectively couples the light source in the display area, and includes multiplexers for coupling the first means and second means to the light sources.

D. Second Means for Carrying Selective Display Color Control Signals

The second means for carrying includes any firmware, software, and/or hardware that functions to carry complimentary color signals.

N.D.Tex.,2000.
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