United States District Court,
W.D. Pennsylvania.

HALMAR ROBICON GROUP, INC,
Plaintiff.
v.
TOSHIBA INTERNATIONAL CORPORATION,
Defendant.

Civil Action No. 98-501

Aug. 15, 2003.

Buchanan Ingersoll, Attn Samuel W Braver Esq, Reed Smith Shaw & McClay, Attn Gregory B Jordan Esq, Pittsburgh PA, for Plaintiff.

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OPINION and ORDER OF COURT

AMBROSE**, Chief Judge.**

Plaintiff Halmar Robicon Group, Inc. ("Robicon") develops, manufactures and sells electric motor drives used in industrial applications. Robicon is the owner of Patent No. 5,625,545 ("the '545 Patent"). The '545 Patent, issued on April 29, 1997, resulted from an application filed by Robicon's senior advisory engineer, Peter Hammond, on March 1, 1994. Robicon currently markets the '545 technology under the name "Perfect Harmony."

Defendant Toshiba International Corporation ("Toshiba") also manufactures and sells electric motor drives to industrial consumers. In 1998, Robicon filed suit against Toshiba, charging that Toshiba has willfully infringed almost all aspects of the '545 Patent. Toshiba denies these allegations and counters that the '545 Patent is invalid in view of prior art.

Given the complexity of the subject matter, and in response to Toshiba's request, l appointed a special Master under Federal Rule of Civil Procedure 53 for the purpose of construing the asserted claims. Specifically, I asked the Special Master to submit a Report and Recommendation on the meaning of the disputed claims. The special Master submitted a 188 page tome approximately one year later. See Docket No. 102. The Special Master also submitted a 43 page Report and Recommendation on Jury instructions and a 10 page Procedural History.

Pending are Robicon's Objections to the Special Master's Report and Recommendation. I am well aware of the lengthy amount of time this matter has been pending and agree with Robicon that the length and

incomprehensibility of the Report and Recommendation and accompanying Jury Instructions have made it nearly impossible for me to fairly evaluate the Report and Recommendation. Nevertheless, the law requires that l review, *de novo,* the Report and Recommendation to ensure that the legal conclusions are proper.

After extensive review of the parties' submissions, the Report and Recommendation and all the other relevant materials, I have concluded, with full awareness of the time and expense that has been incurred to date, that the Report and Recommendation must be rejected. I must independently decide the claim construction issues identified by the parties in 1999. I do this because I conclude, as Robicon urges, that the Special Master failed to properly construe some of the terms. Furthermore, I find the Special Master's conclusions about the validity of certain patent claims exceeded the direction he was given, which was to submit a Report and Recommendation on the issue of patent claims construction.

CONTROLLING LAW

Courts construe patents as a matter of law. Vitronics Corp. v. Conceptronics, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). The objective of a claims construction "is to ascertain the meaning that a person of ordinarv skill in the art would give to the claims in dispute." Ad in the Hole International, Inc. v. Napex, Civ. No. 97-600, 1999 WL 106905 (E.D.Pa. Feb. 25, 1999), *citing,* Wiener v. NEC Electronics, Inc, 102 F.3d 534, 539 (Fed.Cir.1997). The date of the patent application governs. *See* Wiener, 102 F .3d at 539.

Construction of a patent begins with a consideration of the intrinsic evidence. The intrinsic evidence consists of the claims set forth in the patent itself, together with the specifications, the embodiments and the prosecution history. Of course, "[a]lthough all parts of a patent are relevant to interpreting the patent, the patent's claims specifically define the scope of the patent's right to exclude, and accordingly, a determination of the scope of the patent centers on the language of the claims." Kensey Nash Corp. v. Perclose, Inc., Civ. No. 98-1629, 2000 WL 1868391 at * 1 (E.D.Pa. Dec. 22, 2000), *citing,* Renishaw PLC v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1250 (Fed.Cir.1998). *See also* Sightsound.Com Inc. v. N2K, Inc., 185 F.Supp.2d 445, 453-54 (W.D.Pa.2002) (stating, "[i]n construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.") (citations, internal quotation marks and brackets omitted). "If the claim language is clear on its face then [the court's] consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claim is specified." Sightsound.Com, 185 F.Supp.2d at 454 (citation omitted). A deviation may, however, exist where, for instance, the patentee, in amending a claim before the PTO or in distinguishing prior art, relinquishes a portion of what would ordinarily be within the plain meaning of a claim. Siqhtsound.Com, 185 F. supp.2d at 454 (citations omitted).

"In most situations, an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term." vitronics. 90 F.3d at 1583. Where the ambiguities cannot be resolved by a consideration of the intrinsic evidence alone, however, the court may consider extrinsic evidence. Expert testimony, dictionaries, [earned treatises and prior art not mentioned in the patent application are helpful sources of extrinsic evidence.

The court may also consider extrinsic evidence in an effort to educate itself. *See* Sightsound.Com, 185 F.Supp.2d at 455, and Vitronics, 90 F.3d at 1582-83. Generally, a judge is not conversant in the technical art involved. As stated above, the court must construe the claims in light of what a person of ordinary skill in the particular art would understand a term to mean. For this reason, extrinsic evidence in the form of expert

testimony, learned treatises and dictionaries may prove particularly helpful in ascertaining what definition a person conversant in the technical art would ascribe to a particular term.

OVERVIEW OF TECHNOLOGY

The '545 Patent discloses an electric drive. A drive is a device used to power large motors in industrial settings. Though drives are grouped into three categories (small, medium and large), the '545 Patent relates only to medium voltage drives.

Prior to the development of the '545 Patent technology, the state of the art for medium voltage drives was current source inverters. The current source inverters did not, however, comply with industrial standards requiring reduced input harmonics (defined below). Robicon, more particularly Hammond, sought to develop technology which would satisfy the industry standards. The resultthe '545 Patent.

With the *caveat* that I lack a background in electrical engineering, I think the '545 Patent generally operates as follows. The utility company (or a generator) supplies AC (alternating current) power at a particular voltage to the electric drive. The primary winding circuit (a coil) receives the power and then transfers it to numerous secondary winding circuits (also coils). These secondary circuits then transfer the AC power to power cells.

Basically, the power cells receive AC power, transform it into DC (direct current) power, store that power and ultimately release it to the motor in controlled amounts, as AC power. *See* Figure 4. More specifically, this transformation occurs as follows. The secondary winding circuits transport power to the transformer, the first portion of the power cell. That AC power is then transferred to the rectifier. The rectifier converts the AC power to DC power. That is, it transforms a sign wave into a reasonably straight line. The DC power then goes through smoothing filters to further straighten the line. It is then stored as DC power.

The DC power is ultimately released to the load (the motor) in a controlled way, through solid state switching devices. The switches are turned "on" or "off" through modulation control means. FN1 When power is released from storage and delivered to the load, it is reconstituted as a sign wave or AC power. FN2 Thus, the power cell consists of three basic components: (1) the rectifier-which converts AC power to DC power; (2) an area for the storage of power in DC form; and (3) solid state switching devices which release power to the load in a controlled manner.

FN1. The "modulation control means" is electronic hardware and software which is used to control the output of the power cells. The outputs are either positive, negative or zero.

FN2. I understand from the testimony at the Markman hearing that the power is not actually converted to AC, but is simply reconstructed in the form of a sign wave so as to make the motor think it is receiving AC power. Yet, as the experts commonly referred to it as AC power, I will as well.

The '545 Patent discloses multiple power cells. Each power cell consists of the components described above. The power cells are then arranged into discrete, but connected, groups. Each of the discrete groups and their interconnections constitute an individual phase output line. Each phase output line carries electric power to the motor.

The '545 Patent technology contains particular nuances which merit further discussion. First, the secondary winding circuits are "phase shifted." Looking at Figure 1 of the Patent, this phase shifting is illustrated by the differences in the delta "pigtails" on items 3 through 11. The phase shifting minimizes the distortion or "electrical pollution" which travels back to the utility company. This distortion is known as "harmonics." FN3

FN3. Harmonics are undesirable. Conceptually, they are like static interference on radio transmissions. On the input side (the connection between the utility company and the primary winding circuit), harmonics cause additional heating of the supply transformer and additional losses in the utility company's power lines. Harmonics may also cause interference with other equipment which is operating on the same utility lines. On the output side (between the power cell and the motor), harmonics provide additional motor heating, cause uneven torque generation on the motor shaft and contribute to the shortening of the life of the motor.

The industry standards at the time the '545 Patent technology was developed called for a reduction in harmonics to 5%. According to Robicon, prior to the invention of the '545 Patent technology, harmonics had been approximately 28%. The Perfect Harmony technology reduced the harmonics to approximately 3%.

In addition to reducing harmonics on the input side, the '545 Patent technology reduces harmonics *on* the output side. The reduction is achieved via the solid state switching devices. The modulation control means selectively controls the switching events of the power cells. The switchings are spaced in time. The spacing in time reduces the harmonics by restricting both the voltage levels and the timing of the deliveries to the load.

The other nuance of the '545 Patent is cost savings. The technology uses low voltage components to provide medium voltage operation. This is considerably less **expensive than using medium voltage components.**

CLAIMS CONSTRUCTIONFN4

FN4. It is unclear whether Robicon advances an argument that the ' 545 Patent constitutes a "pioneering invention" and thus merits a liberal claims construction. It certainly discusses the effects of "pioneer status," yet its statement in Paragraph 17 of its Proposed Findings of Fact and Conclusions of Law that the claims constructions offered were not given a more liberal or broad base because of the invention's alleged pioneer status, appears to be a concession that I need not resolve the "pioneer" issue in order to properly construe the claims.

The '545 Patent has 48 claims. Robicon charges Toshiba with having infringed Claims 1, 2, 3, 4, 5, 6, 7, 11, 12, 13, 14, 15, 17, 18, 21, 22, 25, 26, 27, 31, 32, 33, 34, 35, 36, 39, 40, 41, 43 and 46. For purposes of claims construction, Robicon has identified claims 1, 17, 18, 21, 25 and 46 as being representative.

A. ***Claim 1***

Claim 1(a) begins as follows:

An electric drive for use with a multi-phase AC load comprising:

(a) a multi-phase power transformer, said power transformer having at least one primary winding circuit and a plurality of secondary winding circuits, said primary winding circuit being electrically connectable to a source of multi-phase AC power;

The term "comprising" as used in the Preamble means "including the following elements, but not excluding others." *See* Moleculon Research Corp. v. CBS, Inc., 229 USPQ 805, 812 (Fed.Cir.1986), *cert. denied,* 479 U.S. 1030 (1987). The focus of the dispute as to Claim 1(a) is the meaning of the word "plurality" and thus the phrase "plurality of secondary winding circuits." I find that the word "plurality" means simply more than one, and thus that the phrase "plurality of secondary winding circuits" means more than one secondary winding circuit. This conclusion is reached not only from the ordinary meaning of the word "plural," but also from the expert testimony given at the Markman hearing, *see* Osman, p. 149 and Hammond, p. 79, and from the decisions of the Federal Circuit, most notably, Dayco Products, Inc. v. Total Containment, Inc., 258 F.3d 1317 (Fed.Cir.2001) and York Products, Inc. v. Cent. Tractor Farm and Family Center, 99 F.3d 1568, 1575 (Fed.Cir.1996).

Subsection (b) of Claim 1 reads:

a *plurality of power cells, each of said plurality of power cells having an input connected with a respective one of said plurality of secondary winding circuits, each of said plurality of power cells having a single-phase controllable output to such multi-phase AC load, and said plurality of power cells being serially connected with respective others of said power cells in each phase output line to such multi-phase AC load;*

Again, the term "plurality" as used in "plurality of power cells" is in dispute. I find that the term means more than one power cell. Again, this finding is based on the word's ordinary meaning, the expert testimony of what one skilled in the art would understand the term to mean, and the relevant case law.

As to the phrase "respective one," I find that it means a particular one. Thus, in light of the patent language, particular power cells are connected to particular secondary winding circuits in order to realize the advantages of the Invention. Both the ordinary meaning of the word and the expert testimony of Osman lead to this conclusion.

I further find that the phrase "having a single-phase controllable output" means that the power cells must have at least a single-phase controllable output and not that they must have only one singe-phase controllable output. The absence of the word "only" and the expert testimony of Pelly support this conclusion.

Subsection (c) of Claim 1 reads:

modulation control means connected to respective ones of said plurality of power cells, so that the output of said respective ones of said plurality of power cells is controlled;

The parties agree that the phrase "modulation control means" is means-plus-function language. Patent law permits a patentee to write a limitation in a combination claim as a method for performing a function without having to describe the actual structure in the claim. *See* 35 U.S.C. s. 112, para. 6. To invoke this tool, however, the patentee must describe the structure, material or acts which perform the function within the specification portion of the patent *See* Valmont Ind., Inc. v. Reinke Mfg. Co., Inc., 983 F.2d 1039, 1042 (Fed.Cir.1993). The means-plus-function element will thus include all of the structure defined in the

specification and any other structures which are deemed equivalent to those described. *See* Micro Chemical, Inc. v. Great Plains Chemical Co., Inc., 194 F.3d 1250, 1258 (Fed.Cir.1999). The question then, is what structure the specifications disclose, and what other structures are deemed equivalent. Here, Robicon's witnesses testified that the only "structure" disclosed is one variation of the subharmonic method [x] the "shift method." *See* Hammond, p. 48 and Osman, p. 167. *see also* Col. 8, line 15. Robicon contends other variations of the subharmonic method, such as the cascade method, are equivalents. The problem with Robicon's argument, is that it failed to produce any testimony that the cascade method is an equivalent of the shift method. Certainly, experts from both sides explained that each method can be used to reduce harmonics, but *the* experts also agreed that persons of ordinary skill in the art would not consider the cascade method to be equivalent to the shift method. *See* Osman, p. 304-05, stefanovic, p. 437-38 and Pelly, p. 778. I acknowledge that Stefanovic and Pelly were comparing the methods in the context of equal power sharing, a concept which i reject as mandated by the '545 Patent, but a search of the Markman transcripts did not reveal any testimony suggesting that, outside the context of equal power sharing, the shift and the cascade method are equivalents. As such, I must reject Robicon's proposed definition.

Subsection (d) of Claim 1 reads:

said plurality of power cells each having a rectifier electrically connected to a respective one of said plurality of secondary winding circuits and having an electrical output;

The meanings of the phrases "plurality of power cells" and "plurality of secondary winding circuits" are to be construed in a mannerconsistent with the definitions set forth above. To the extent that this matter is in dispute, I find that the rectifier is a component located within the power cell. This conclusion is based upon the expert testimony, which revealed *the* errors in the Patent drawings.

Subsection (e) of Claim 1 provides:

said plurality of power cells includes a preselected number of power cells in series in each phase output line and said plurality of secondary winding circuits are spaced apart in electrical phase by a number of degrees equal to 60 divided by said preselected number thereby reducing harmonics in lines to said source; and

Again, I find that the phrases "said plurality of power cells" and "said plurality of secondary winding circuits" refer back to the antecedent bases that appear in Claim Kb) and 1(a). As such, they are accorded the same meaning.

I find that the phrase "preselected number of power cells" means some or all of a plurality of power cells in a phase output line. I base this conclusion on the ordinary meaning of the language and upon expert testimony. Further, there is no language in the patent which requires "the preselected number of" be all of the power cells. The use of the word "a" reinforces this conclusion. In patent law, the word "a" generally means "one or more" and constitutes open-ended language. *See* KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351 (Fed.Cir.2000).

As to the phrase "60 divided by a pre-selected number," I find that the phrase does not mean a precise integer, provided that input harmonics are reduced. The use of the word "generally" throughout Claims 18, 19, 20, 36, 37 and 38 reinforces that the '545 Patent does not call for a precise integer. Indeed, dependent claims are never construed more broadly than the independent claims from which they depend. *See* Desper Products, Inc. v. Qsound Labs, Inc., 157 F.3d 1325, 1338 n. 5 (Fed.Cir.1998). Further, Osman testified that

the 5% ceiling on harmonic distortion is achievable with phase shifts that vary by up to 3% from the calculated integer. I find his testimony to be persuasive.

Subsection (f) of Claim 1 reads:

said modulation control means further having means for selectively controlling a switching event of each of said plurality of power cells so that said switching event of respective one of said plurality of power cells in each phase output line is spaced in time from said switching event of respective others of said plurality of power cells in the respective phase output line thereby reducing harmonic components in such output lines to such load.

Here the dispute focuses on the meaning of "spaced in time." I find that this phrase requires that one power cell in a phase output line must switch spaced in time from one or more other power cells in the same phase output line, not that one power cell must switch spaced in time from each and every other power cell in the same output line. *See* Pelly, p. 736-742. I base this conclusion on the plain language of the Patent and upon expert testimony. FN5

FN5. Contrary to Toshiba's urgings, I do not find the Paice patent to be of particular relevance here. The Examiner did not cite to Paice, the Examiner did not list Paice in her initial search, the Examiner never rejected any claims because of Paice, nor did the Examiner even mention that Paice was relevant. Indeed, unlike the '545 Patent, the Paice patent does not suggest a reduction of harmonics.

(B) *Claim 17*

Subsection (a) of Claim 17 reads:

The electric drive of claim 1 wherein said modulation control means further comprises:

a. *means for selectively applying at least one control signal to said plurality of power cells so that each of said plurality of said power cells conducts a current at a predetermined voltage, with predetermined polarity, and for a predetermined duration; and*

The parties agree that the modulation control means recited in Claim 1 is limited by the language used in Claim 17(a) and (b). Claim 17(a) uses means-plus-function language. Under 35 U.S.C s. 112 para. 6, such language will cover only the corresponding structure described in the specifications and any equivalents. As described above, the only corresponding structure identified is the subharmonic shift method. Further, after reviewing the expert testimony, I find that the cascade method is not an equivalent.

Subsection (b) of Claim 17 reads:

means for interdigitating a preselected number of carrier signals to each of said plurality of said power cells, sothat harmonic components in a power frequency spectrum are generally attenuated.

The parties dispute the meaning of the phrase "interdigitating a preselected number of carrier signals." I find the term "interdigitate" means to "interlock, like the fingers of folded hands." see Webster's Third New international Dictionary at 1178 (1981). Although Robicon urges that interdigitating means shifting in time,

amplitude or both (i.e., the shift method and the cascade method), the fact remains that the specifications only identify the shift method. This necessarily limits the meaning of the term "interdigitate" in this context to mean only a shifting of time, not a shifting of amplitude.

C. *Claim 18*

Claim 18 reads:

The electric drive of claim 1 wherein said preselected number of said plurality of power cells in each phase output line is three, first selected ones of said plurality of secondary winding circuits are advanced in phase by generally 20 degrees from second selected ones of said plurality of secondary winding circuits, and third selected others of said plurality of secondary winding circuits are delayed in phase by generally 20 degrees from second selected ones of said plurality of secondary winding circuits.

I find that the phrase "generally 20 degrees" is not restricted to a precise integer. Rather, it refers to that degree of phase shifting which results in a reduction of input harmonics to less than 5% total harmonic distortion. I base this conclusion on the expert testimony, particularly Osman's, and on the specifications. See '545 Patent, col. 4, lines 18-24, col. 5, lines 42-52, col. 10, lines 9-14. I further find Stefanovic's testimony that a person skilled in the art would understand the phrase to allow only for manufacturing tolerances to be unpersuasive.

P. *Claim 21*

Claim 21 reads:

An electric drive for use with a multi-phase AC load comprising:

(a) a multi-phase power transformer, said power transformer having at least one primary winding circuit and a plurality of secondary winding circuits, said primary winding circuit being electrically connectable to a source of multi-phase AC power;

(b) a plurality of power cells, each of said plurality of power cells having an input connected with a respective one of said plurality of secondary winding circuits, each of said plurality of power cells having a single-phase controllable output to such multi-phase AC load, and said plurality of power cells being serially connected with respective others of said power cells in each phase output line to such multi-phase AC load;

(c) modulation control means connected to respective ones of said plurality of power cells, so that the output of said respective ones of said plurality of power cells is controlled; and

(d) said modulation control means further comprises means for selectively controlling a switching event of each of said plurality of power cells so that said switching event of respective one of said plurality of power cells in each phase output line is spaced in time from said switching event of respective others of said plurality of power ceils in the respective phase output line thereby reducing harmonic components in such output lines to such load.

It is undisputed that Claim 21 incorporates the same requirements as elements (a), (b), (c) and (f) of Claim 1. consequently, the Findings of Fact relating to those elements are hereby incorporated by reference.

E. *Claim 25*

Claim 25(a) reads:

An electric drive for use with a multi-phase AC load comprising:

(a) a multi-phase power transformer, said power transformer having at least one primary winding circuit and a plurality of secondary winding circuits, said primary winding circuit being electrically connectable to a source of multi-phase AC power;

It is undisputed that element (a) of Claim 25 uses the same language with the same meaning as element (a) of Claim 1. Consequently, the Findings of Fact relating to those elements are hereby incorporated by reference.

Claim 25(b) reads:

a *plurality of power cells, each of said plurality of power cells having an input connected with a respective one of said plurality of secondary winding circuits, each of said plurality of power cells having a single-phase controllable output to such multi-phase AC load, and respective ones of said plurality of power cells being serially connected with respective others of said plurality of power cells in each phase output line to such multi-phase AC load;*

It is undisputed that element (b) of Claim 25 uses the same language with the same meaning as element (b) of Claim 1. Consequently, the Findings of Fact relating to those elements are hereby incorporated by reference.

Claim 25(c) reads:

each of said plurality of power cells having

I. a rectifier electrically connected to a respective one of said plurality of secondary winding circuits and having an electrical output,

ii. a smoothing filter connected to said output of said rectifier, Hi. a converter connected to said smoothing filter, and the output of said converter connected to respective one of said phase output lines of such multi-phase load;

subsection (c)(i) uses substantially the same language with the same meaning as element (d) of Claim 1. The Findings of Fact relating to that element, as applicable, are hereby incorporated by reference. Additionally, I find that "smoothing filter" as used in subsection (c)(ii) refers to the portion of the power cell which smooths the output from the rectifier. With respect to subsection (c)(iii), I find that the term "converter refers to the portion of the power cell circuit that provides an output *See* Robicon's Findings of Fact, para. 161.FN6 Insofar as the parties disagree as to the meaning of the phrase "respective," I find, as I did earlier, that it means particular.

FN6. I note that Toshiba did not submit any proposed definitions for "smoothing filter" or "converter." As

such, I can only surmise that it did not object to Robicon's proposed definition.

Claim 25(d) reads:

modulation control means connected to each of said converter, so that the output of said converter is controlled, said control means having

(I) a plurality of local modulator controllers connected to respective ones of said plurality of power cells,

(ii) a master modulator controller operably connected to each of said plurality of local modulator controllers, and (Hi) means for selectively controlling a switching event of each of said plurality of power cells so that said switching event of respective one of said plurality of power cells in each phase output line is spaced in time from said switching event of respective others of said plurality of power cells in the respective phase output line thereby reducing harmonic components in such output lines to such load.

The parties do not appear to have any substantive disputes about the meaning of the terms used in (d)(i) or (ii). Rather, the dispute focuses upon *tne* meaning of the terms used in 25(d) (iii). However, it is undisputed that element 25(d)(iii) uses the same language with the same meaning as element (f) of Claim 1. The Findings of Fact relating to that element are hereby incorporated by reference.

F. *Claim 46*

Claim 46(a) reads:

A method of controlling multi-phase AC power to a load comprising:

a. transforming an input voltage to a plurality of secondary voltage sources;

As previously stated, the term "plurality" means more than *one* .

Claim 46(b) reads:

b. supplying power to each phase of said toad from a plurality of power cells fed from said plurality of secondary voltage sources;

The phrase "plurality of power ceils" has the same meaning in Claim 46(a) as it does in Claim 1. consequently, the Findings of Fact relating to that phrase in Claim 1 are hereDy incorporated by reference.
Claim 46(c) reads:

c. applying a *multi-phase current to said load from a plurality of said power cells connected in series in each phase to said load;*

The phrase "multi-phase" means simply that the AC load is supplied by more than one circuit.

Claim 46(d) reads:

d. selectively controlling the output of said power cells to one of a preselected positive voltage level, a preselected negative voltage level, and a generally zero voltage level;

The parties appear to have no disputes with respect to the meaning of the terms used in Claim 46(d).

Claim 46(e) reads:

(e) shifting in phase a plurality of said secondary power sources from said input voltage; and

The parties appear to have no disputes with respect to the meaning of the terms used in Claim 46(e).

Claim 46(f) reads:

(f) selectively controlling a switching event of each of said power cells so that said switching event of respective one of said plurality of said power cells in phase output line is spaced in time from said switching event of respective others of said plurality of power cells in respective phase output line thereby reducing harmonic components in said phase output lines to said load;

It is undisputed that element (f) of Claim 46 uses the same language with the same meaning as element (f) of Claim 1 (recognizing of course that element (f) of Claim 46 is not in means-plus-function format). Consequently, the Findings of Fact relating to element (f) of Claim 1 are hereby incorporated by reference.

claim 46(g) reads:

(g) selectively applying at least one control signal to said plurality of said power cells so that each of said plurality of power cells conducts a current at a predetermined voltage, with a predetermined polarity, and for a predetermined duration; and

It is undisputed that element (g) of Claim 46 uses the same language with the same meaning as element (a) of Claim 17. Consequently, the Findings of Fact relating to element (a) of Claim 17 are hereby incorporated by reference.

Claim 46(h) reads:

(h) interdigitating a preselected [n]umber of carrier signals to each of said plurality of said power cells so that harmonic components in a power frequency spectrum are generally attenuated.

It is undisputed that element (h) of Claim 46 uses the same language with the same meaning as element (b) of Claim 17. Consequently, the Findings of Fact relating to element (b) of Claim 17 are hereby incorporated by reference.

ORDER OF COURT

THEREFORE, this 15th day of August, 2003, it is ORDERED that a Status conference is scheduled for Wednesday, September 3, 2003 at 11:00 A.M. before the undersigned in Room 620 of the U.S. Post Office & Courthouse, 700 Grant Street, Pittsburgh, Pennsylvania. Counsel shall have settlement authority and parties are to be available by telephone.

W.D.Pa.,2003.
Halmar Robicon Group, Inc. v. Toshiba Intern. Corp.