# United States Court of Appeals for the Federal Circuit

2009-1142

INTELLECTUAL SCIENCE AND TECHNOLOGY, INC.,

Plaintiff-Appellant,

v.

SONY ELECTRONICS, INC.,

Defendant-Appellee,

and

US JVC CORPORATION, JVC AMERICAS CORPORATION, and PANASONIC CORPORATION OF NORTH AMERICA,

Defendants.

Andrew Kochanowski, Sommers Schwartz, P.C., of Southfield, Michigan, argued for plaintiff-appellant.

John R. Hutchins, Kenyon & Kenyon, of Washington, DC, argued for defendant-appellee. On the brief was Richard S. Gresalfi, of New York, New York. Of counsel was Zaed M. Billah, of New York, New York.

Appealed from: United States District Court for the Eastern District of Michigan

Senior Judge Avern C. Cohn

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Defendants.

Appeal from the United States District Court for the Eastern District of Michigan in Case No. 06-CV-10406, Senior Judge Avern C. Cohn.

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DECIDED: December 15, 2009

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Before RADER, ARCHER, and GAJARSA, Circuit Judges.

RADER, Circuit Judge.

In this patent case, the United States District Court for the Eastern District of Michigan granted summary judgment of non-infringement in favor of defendants. See Intellectual Sci. & Tech., Inc. v. Sony Elecs., Inc., Nos. 06-10406, -10409, -10412, 2008 WL 5068823 (E.D. Mich. Nov. 24, 2008). Because the district court correctly

determined that plaintiff did not show that any genuine issue of material fact prevents summary judgment, this court affirms.

I.

Intellectual Science and Technology, Inc. ("Intellectual Science") owns U.S. Patent No. 5,748,575 (the "'575 patent"), entitled "Information processing apparatus having a multitasking function with one or more optical discs." This patent claims an apparatus for reading optical discs in a computer that reduces the role of magnetic disk drives. The invention facilitates and improves "information processing" in a computer system by retrieving original source data from optical discs like CD-ROMs rather than from floppy disks or hard drives. Specifically, the invention enhances "information processing" by reading information simultaneously from multiple locations on one or more optical discs. For example, the patent discloses an embodiment that runs Microsoft Word®, Excel®, and PowerPoint® from three different locations on a single disc while simultaneously running Microsoft Windows® 95 from another disc. Concurrently, "a user can enjoy digital music by playing a disc situated in [another] compartment." '575 patent col.12 ll.40-43.

In order to simultaneously read information from several optical discs, the patent discloses an apparatus with control and signal-process systems that retrieve and decode multiple "information sets" from the discs. Id. at col.13 ll.31-41. For example, one embodiment includes two optical head units controlled by a microprocessor, "for simultaneously reproducing information from two separate disc positions." Id. at col.9 l.67-col.10 l.1. The hardware described in the patent allows the apparatus to process information from each of its optical units in parallel.

Of importance for this appeal, the '575 patent discloses a structure for transmitting the information sets obtained from the optical discs to a host computer. The patent describes using an intelligent time-division multiplexer ("ITDM") to transmit multiple information sets as a single data stream. The patent further explains that the ITDM receives the information sets from a high-speed system control bus and transmits the single stream to a host interface bus. The host interface bus, with the help of read only and random access memory ("ROM/RAM"), sends the stream to a host computer. This case focuses on the data-transmitting structure disclosed in the patent and the corresponding structure, if any, in the accused devices.

II.

In early 2006, Intellectual Science filed nine complaints in the Eastern District of Michigan against different defendants, including JVC Americas Corp. ("JVC"), Panasonic Corp. of North America ("Panasonic"), and Sony Electronics, Inc. ("Sony"). Intellectual Science alleged that various audio player/recorder devices made by the various defendants were infringing five of its patents, including the '575 patent. The district court split the five patents into two groups, calling the first group the "read-read" patents and the second group the "read-write" patents, and ordered Intellectual Science to select a single paradigm claim from each group. The '575 patent, the only patent at issue on appeal, was part of the "read-read" patents, and Intellectual Science chose claim 1 of that patent as the representative claim of that group.

The district court also ordered defendants to choose paradigm products for each group of patents to provide the trial court context for understanding the technology at issue. Defendants chose Sony's RCD-W500C and RCD-W1 products and JVC's XL-

R5000BK product as the representative products for the "read-read" patents (the "Sony Paradigm Products" and the "JVC Paradigm Product," respectively).

Claim 1 of the '575 patent reads as follows (important limitation underlined):

> An information processing apparatus with multitasking function, the information processing apparatus comprising:
>
> (a) a plurality of turntables, each comprising a disc-setting table for mounting an optical disc;
>
> (b) a plurality of optical units, each comprising a driving means and an optical read head, wherein said driving means is provided for moving said optical read head in a radial direction of said optical disc to a predetermined disc position on a surface of said optical disc;
>
> (c) means for simultaneously controlling a plurality of said driving means to move a plurality of said optical read heads to a plurality of predetermined disc positions on at least two optical discs for retrieving information stored thereon;
>
> (d) a plurality of signal-process systems for converting a plurality of information sets retrieved by said plurality of optical read heads from a compact disc format to the original state of the information; and
>
> (e) <u>data transmitting means</u> for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer.

After Intellectual Science picked its representative claims — but before claim construction — JVC, Panasonic, and Sony jointly moved for summary judgment of non-infringement. In support of their motion, defendants relied on a declaration by their expert, Dr. Martin E. Kaliski. Dr. Kaliski opined that the means-plus-function limitation of "data transmitting means" should be construed to require a structure that includes at least a system control bus, an ITDM, a host interface bus, and ROM/RAM. Dr. Kaliski further stated that the accused devices do not have a "data transmitting means" because they lack both an ITDM and a host interface bus.

In response, Intellectual Science submitted a declaration from its expert, Dr. William R. Michalson. Dr. Michalson did not dispute that the structure for the "data

transmitting means" included the four elements also identified by Dr. Kaliski. Dr. Michalson, however, asserted that those elements were indeed present in the accused devices. Referring to two circuit diagrams from Sony Service Manuals, Dr. Michalson stated in his declaration that,

> 94. The Sony RCD-W500C Paradigm Product has a "data transmitting means" that includes a control bus, an ITDM, a host interface bus and RAM/ROM. Serial output buses (*i.e.* control bus) transmit control information (instructions) along circuitry associated with each optical drive. Serial input buses receive information from each optical drive to an ITDM for multiplexing subcode data which is then transmitted to the host bus interface. A/D D/A Converter IC500 multiplexes audio information stream (CD or CDR) for output by the unit. Internal ROM/RAM is provided to support program operations from each of the optical drives. (P's App. Ex. 24 (Sony RCD-W500C Service Manual), at SEL00057).
>
> 95. The Sony RDC-W1 Paradigm Product includes a control bus, an ITDM, a host interface bus and RAM/ROM. Serial output buses (*i.e.* control bus) transmit control information (instructions) along circuitry associated with each optical drive. Serial input buses receive information from each optical drive to an ITDM for multiplexing subcode data which is then transmitted to the host bus interface. Playback signal selection device IC-109 multiplexes audio information stream (CD or CDR) for output from the D/A converter. Internal ROM/RAM is provided to support program operations from each of the optical drives. (P's App. Ex. 25 (Sony RCD-W1 Service Manual), at SEL000209).
>
> …
>
> 102. The structures referred to above … for the accused Paradigm Product[s] all perform the same function as the claimed "data transmitting means" (*i.e.*, transmitting to the host computer), in the same way (*i.e.*, through a time division multiplexed structure) to achieve the same result (*i.e.*, transmitted information sets). Accordingly, the Paradigm Products satisfy clause (e) as either a literal equivalent under "means plus function" or under the Doctrine of Equivalents.

Intellectual Science relied exclusively on these paragraphs and the two cited diagrams to show that the Sony Paradigm Products contained the claimed "data transmitting

means." Intellectual Science's evidence was similar with respect to the JVC Paradigm Product.

The district court appointed a special master to issue a Report and Recommendation ("Report") on defendants' summary judgment motion. As a part of the Report, the special master construed "data transmitting means" as a means-plus-function limitation with a structure that includes at least four elements: "the high-speed system control bus, ITDM, wide-band host interface bus, and ROM/RAM." As for the limitation's function, the special master relied exclusively on the claim language and concluded that the "data transmitting means" is "for transmitting a plurality of the information sets converted by said plurality of signal-process systems to a host computer."

Addressing infringement, the special master concluded that Intellectual Science did not make a sufficient showing of infringement to survive summary judgment because the statements in Dr. Michalson's declaration were merely conclusory. Specifically, the Report stated,

> There is no indication as to the specific structure in the Paradigm products relied upon by Michalson as corresponding to the claim elements (by way of example, Michalson does not annotate the circuit diagrams upon which he relies to point to any specific structural element). Michalson does not explain the specifications of such element. Michalson does not inter-relate the operation of such element relative to any other elements.

Accordingly, the Report recommended that the district court grant defendants' motion for summary judgment of non-infringement.

The district court agreed with the special master and granted summary judgment in favor of JVC, Panasonic, and Sony. Intellectual Sci. & Tech., 2008 WL 5068823, at *10. Intellectual Science appealed the decision with respect to all three movants, but,

while its appeal was pending, settled with JVC and Panasonic. This opinion therefore discusses Intellectual Science's evidence of infringement for Sony only.

III.

This court reviews a district court's grant of summary judgment without deference. Vita-Mix Corp. v. Basic Holding, Inc., 581 F.3d 1317, 1323 (Fed. Cir. 2009). Summary judgment resolves any case without a "genuine issue as to any material fact" where the "the moving party is [also] entitled to judgment as a matter of law." Fed. R. Civ. P. 56(c). Stated in the negative, summary judgment is improper when the record contains "evidence on which the jury could reasonably find for the [non-moving party]." Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 252 (1986).

On appeal, Intellectual Science asserts that Sony's Paradigm Products literally contain the "data transmitting means." Literal infringement first requires the trial court to interpret the claims to determine their scope and meaning. Dynacore Holdings Corp. v. U.S. Philips Corp., 363 F.3d 1263, 1273 (Fed. Cir. 2004). In this case, the parties do not dispute the accuracy of the district court's construction of the means-plus-function term "data transmitting means." Thus, the focus in this appeal is on the comparison of that claim construction to the allegedly infringing devices. Id. For a means-plus-function claim term, the term literally covers an accused device if the relevant structure in the accused device performs the identical function recited in the claim and that structure is identical or equivalent to the corresponding structure in the specification. Welker Bearing Co. v. PHD, Inc., 550 F.3d 1090, 1099 (Fed. Cir. 2008).

To satisfy the summary judgment standard, a patentee's expert must set forth the factual foundation for his infringement opinion in sufficient detail for the court to be

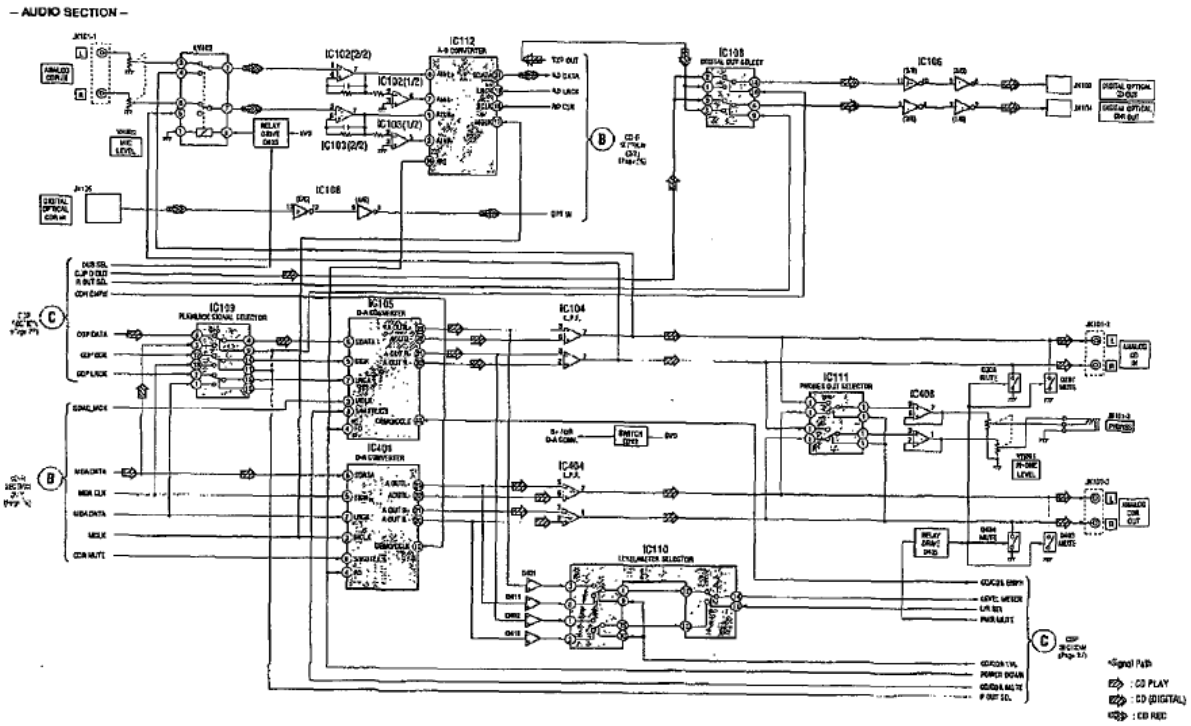
certain that features of the accused product would support a finding of infringement under the claim construction adopted by the court, with all reasonable inferences drawn in favor of the non-movant. Arthur A. Collins, Inc. v. N. Telecom Ltd., 216 F.3d 1042, 1047-48 (Fed. Cir. 2000). This court considers the sufficiency of an expert's opinion at summary judgment according to the standards of regional circuit law. Id. at 1048. The standard in the United States Court of Appeals for the Sixth Circuit is similar to the standard set forth in Arthur A. Collins, namely, that "[a]n expert opinion submitted in the context of a summary judgment motion must . . . set forth facts and, in doing so, outline a line of reasoning arising from a logical foundation." Brainard v. Am. Skandia Life Assur. Corp., 432 F.3d 655, 663-64 (6th Cir. 2005) (quotations omitted).

IV.

Turning to Dr. Michalson's declaration, this court concludes that it does not sufficiently identify the structural elements of the claimed "data transmitting means." An expert's unsupported conclusion on the ultimate issue of infringement will not alone create a genuine issue of material fact. Arthur A. Collins, 216 F.3d at 1046. Moreover a party may not avoid that rule "by simply framing the expert's conclusion as an assertion that a particular critical claim limitation is found in the accused device." Id. This record discloses no more than an unsupported conclusion of infringement that is not sufficient to raise a genuine issue of material fact.

Dr. Michalson's statement that "[s]erial input buses receive information from each optical drive to an ITDM for multiplexing subcode data which is then transmitted to the host bus interface" does not pinpoint where those elements are found in the accused devices. His citation to a page number in Sony's Service Manual for each

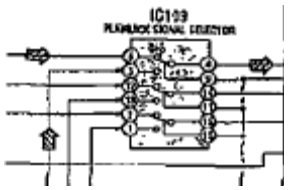
representative product also supplies no specific showing of an infringing structure. The schematic found at each page, one of which is reproduced below, presents an unexplained array of electronic symbols:




To present a prospect of infringement, Intellectual Science must present a triable issue of fact that a person of skill in the art would recognize that these symbols depict an infringing device. See TechSearch, L.L.C. v. Intel Corp., 286 F.3d 1360, 1374-75 (Fed. Cir. 2002) (affirming summary judgment of non-infringement because the record did not support assertion that one of skill in the art would equate the accused element, a multiplexer, with the claimed element, a decoder). Instead Intellectual Science argues vaguely that the structural elements are "off-the-shelf" components. Again, nothing in the record corroborates that assertion or shows that one of skill in the art would recognize the "off-the-shelf" component as matching the infringing means. Even if the

elements are common components, the record must specifically identify the infringing features of those components and the reason that one of skill in the art would recognize them as infringing. Without that further identification and explanation, a reasonable juror would not be able to determine that those allegedly infringing components are actually present.

Intellectual Science contends that Dr. Michalson did at least identify the structure that serves as the ITDM, relying on the statement in his declaration that "[p]layback signal selection device IC-109 multiplexes audio information stream (CD or CDR) for output from the D/A converter." The record shows that Dr. Michalson identified an element labeled IC-109 in the cited schematic. Moreover, the schematic appears to identify that element as a multiplexer because the element is labeled "selector," accepts two inputs, and produces one output:



Merely referring to the IC-109 multiplexer, however, does not suffice to show infringement. To accept this identification, this court would have to conclude that it would be reasonable to infer that the identified playback signal selection device is an ITDM simply because both devices perform multiplexing. Dr. Michalson's opaque identification is not enough to permit any reasonable juror to make that leap. The record simply does not allow this court to accept the reasoning that all multiplexers are ITDMs. Rather, as the record shows, an ITDM's output is more complex. The patent explains that "[t]he plurality of converted information sets are multiplexed by ITDM 717 in order to be simultaneously transferred to host computer 720." '575 patent col.14

ll.15-17 (emphasis added). While a signal selector might be a multiplexer because it outputs one of two input signals, Dr. Michalson does not provide any indication that the one here outputs a signal that simultaneously transmits a plurality of information sets.

Stated another way, the problem with equating the identified playback signal selection device with an ITDM on this record is the absence of any showing that the identified structure accomplishes the same function in the same way as the claimed structure. See Welker Bearing Co., 550 F.3d at 1099. Dr. Michalson's affidavit supplied only the statement that the structures in the accused devices "perform the same function as the claimed 'data transmitting means' (*i.e.*, transmitting to the host computer), in the same way (*i.e.*, through a time division multiplexed structure) to achieve the same result (*i.e.*, transmitted information sets)." That conclusory statement is insufficient. To permit a jury to conclude that the playback signal selection device is an ITDM, Dr. Michalson needed to supply at a minimum some description about the specific features of the accused playback signal selection device's multiplexing of the audio information stream. Dr. Michalson did not supply any of the details necessary to identify an infringing device. Moreover Dr. Michalson's statement with respect to the other Sony Paradigm Product, the RCD-W500C, also lacked that vital identification and explanation.

This court dealt with a similar record in Arthur A. Collins. In that case, this court determined that the patentee's expert had not sufficiently identified a "TST switch" limitation in the accused device. The court concluded that a statement from the patentee's expert that "[t]he so-called JNET is a TST switch" did not supply enough information to survive summary judgment, reasoning:

> Dr. Helgert did not support his assertion that 'JNet is a TST switch' with an explanation of why JNET's structure renders it a TST switch in his view; *i.e.*, there is nothing in his declaration that would allow a finder of fact to conclude that JNET constitutes a TST switch as that term is used in the patent.

216 F.3d at 1046.

Dr. Michalson's declaration in this case is even more lacking than the one in Arthur A. Collins. Dr. Michalson did not even expressly state that the playback signal selection device is the ITDM. As noted, this court declines to make that inference on appeal.

Two other points bolster the conclusion that Intellectual Science has not proffered enough evidence to permit a reasonable juror to conclude that the accused devices contain a "data transmitting means." First, when counsel for Intellectual Science was asked at oral argument where exactly Dr. Michalson identified the structural elements in his declaration, counsel conceded that the language is "perhaps not as grammatical as one would wish." Oral Arg. at 10:56, Oct. 9, 2009, available at http://oralarguments.cafc.uscourts.gov/mp3/2009-1142.mp3. Asking litigants to provide more than a difficult-to-decipher expert declaration does not impose too high a burden at summary judgment, especially where, as here, the structural elements are allegedly common.

Second, Intellectual Science's attorney argument does not offer any more clarity. To be specific, Intellectual Science contends that Dr. Michalson identified the host interface bus when he stated that "[s]erial input buses receive information from each optical drive to an ITDM." Dr. Michalson's statement, however, indicates that the identified "serial input buses" interface not with the host, as required by the claims, but

instead with "an ITDM." While attorney argument might be able to clarify an otherwise ambiguous expert declaration in some circumstances, see Applied Medical Resources Corp. v. United States Surgical Corp., 448 F.3d 1324, 1335 n.5 (Fed. Cir. 2006) ("[T]he expert declaration and Applied's argument provide[] particularized testimony and linking argument." (emphasis added)), in this case those arguments render the expert's declaration even less clear.

In a last-ditch effort, Intellectual Science points to Applied Medical for the proposition that it was not required to link Dr. Michalson's statements to particular structures in the accused devices. To the contrary, this court in Applied Medical vacated a summary judgment because the patentee's expert provided a sufficient basis on which a jury could conclude that the identified structure in the accused device, a surgical instrument, was equivalent to the structure claimed in the patent-in-suit. Id. at 1334. This court concluded that the expert had adequately established that the identified structure was equivalent because he provided an explanation as to why one of skill in the art would view the structure as functioning in substantially the same way to achieve substantially the same result. Id. at 1335. In dicta, this court said that "we have only required [particularized testimony and linking argument] in applying the 'function, way, result' test in the context of proving infringement of a claim under the doctrine of equivalents." Id. at 1335 n.5.

Thus, unlike this case, the patentee's expert in Applied Medical had pinpointed the relevant structure in the accused device. See id. at 1333 ("Once the relevant structure in the accused device has been identified, a party may prove it is equivalent to the disclosed structure by showing that the two perform the identical function in

substantially the same way, with substantially the same result." (emphasis added)). This court has never stated that a patentee can survive summary judgment of non-infringement on an apparatus claim without specifically identifying the allegedly infringing structure in the accused device. Such a rule would conflict with the express language of Fed. R. Civ. P. 56(e)(2), which requires a non-movant to set out "specific facts" showing a genuine issue for trial. Without clear identification of the claimed structure or its equivalent in the accused devices, Intellectual Science cannot survive summary judgment.

V.

Intellectual Science also appeals the district court's construction of the term "with multitasking function" in the preamble of claim 1 of the '575 patent. The construction of that term, however, does not affect the issue of adequate information to create a factual issue on infringement of the "data transmitting means" in the accused devices. Because Intellectual Science did not show a genuine issue of material fact on one of the limitations in the accused devices, this court need not reach the district court's construction of another. See TechSearch, 286 F.3d at 1371 ("To establish literal infringement, all elements of the claim, as correctly construed, must be present in the accused system.").

VI.

For the foregoing reasons, this court affirms the district court's grant of summary judgment of non-infringement in favor of Sony.

AFFIRMED.

COSTS

Each party shall bear its own costs.