Trials@uspto.gov
571-272-7822

Paper 10
Entered: December 15, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CANON INC., CANON U.S.A., INC.,
CANON FINANCIAL SERVICES, INC., FUJIFILM CORPORATION,
FUJIFILM HOLDINGS AMERICA CORPORATION,
FUJIFILM NORTH AMERICA CORPORATION, JVC KENWOOD
CORPORATION, JVCKENWOOD USA CORPORATION,
NIKON CORPORATION, NIKON INC., OLYMPUS CORPORATION,
OLYMPUS AMERICA INC., PANASONIC CORPORATION,
PANASONIC CORPORATION OF NORTH AMERICA,
SAMSUNG ELECTRONICS CO., LTD., and
SAMSUNG ELECTRONICS AMERICA, INC.,
Petitioner,

v.

PAPST LICENSING GMBH & CO. KG,
Patent Owner.

Case IPR2016-01223
Patent 8,504,746 B2

Before JONI Y. CHANG, JENNIFER S. BISK, and MIRIAM L. QUINN, *Administrative Patent Judges.*

BISK, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, listed above, filed a Petition requesting an *inter partes* review of claims 1–25, 27–30, 33, and 35 ("the challenged claims") of U.S. Patent No. 8,504,746 B2 (Ex. 1301, "the '746 patent"). Paper 1 ("Pet."). Patent Owner, Papst Licensing GmbH & Co., KG ("Patent Owner"), filed a Preliminary Response. Paper 9 ("Prelim. Resp.").

For the reasons that follow, we do not institute an *inter partes* review as to any of the challenged claims.

A. Related Matters

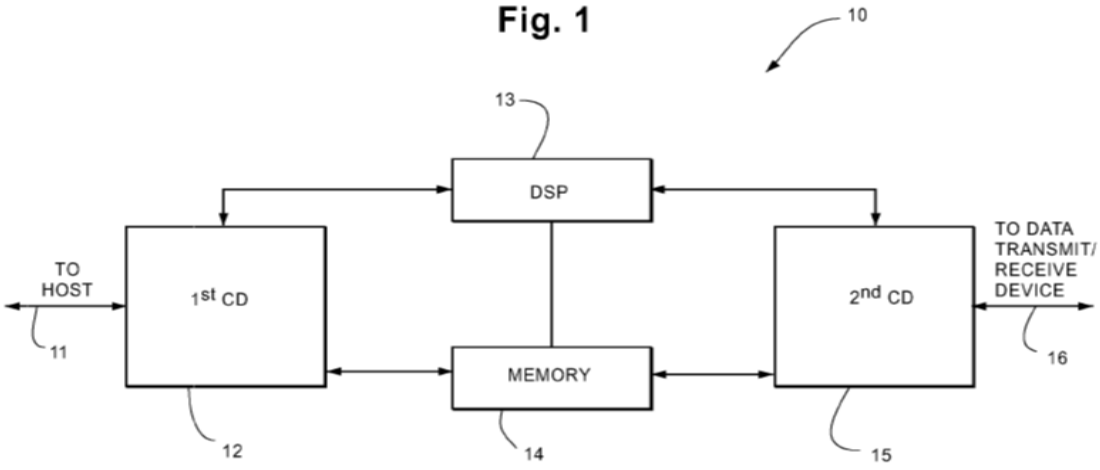
The parties indicate that the '746 patent is involved in *Papst Licensing GmbH & Co. KG v. Canon Inc.*, Case No. 1:15-cv-01692 (D.D.C.) and other proceedings. Pet. 6–8; Paper 5, 1–3. This patent has also been challenged in several other petitions for *inter partes* review. Pet. 8; Paper 5, 4–5.

B. The '746 Patent

The '746 patent describes an interface device for communication between a computer host device and a data transmit/receive device (e.g., a multi-meter, transmitting measured data to a computer). Ex. 1301, 1:20–22, 1:56–59. According to the '746 patent, using a specific driver to match very closely to an individual host system would achieve high data transfer rates across the interface, but the specific driver cannot be used with other host systems. *Id*. at 2:6–21. Several solutions to this problem were known in the art. *Id*. at 2:22–3:24. For example, IOtech introduced an interface device for laptops, using a plug-in card for converting the personal computer memory card association (PCMCIA) interface into a known standard

interface (IEEE 1284). *Id*. at 2:25–30. The plug-in card provided a printer interface for enhancing data transfer rates. *Id*. at 2:30–34. In another example, a floppy disk drive interface was used for connecting a host device to a peripheral device. *Id*. at 3:10–14. The interface appeared as floppy disk drive to the host, allowing a floppy disk drive and another peripheral device to be connected to the host device. *Id*. at 3:17–19.

The '746 patent indicates that the "invention is based on the finding that both a high data transfer rate and host device-independent use can be achieved if a driver for an input/output device customary in a host device" is utilized. *Id*. at 3:32–37. Figure 1 of the '746 patent, reproduced below, illustrates a block diagram of an interface device.



As shown in Figure 1 above, interface device 10 connects to a host device via host line 11, and to a data transmit/receive device via output line 16. *Id*. at 4:59–5:10. Interface device 10 includes first connecting device 12, second connecting device 15, digital signal processor 13, and memory means 14. *Id*. In a preferred embodiment, the interface device is attached to a host device via a multi-purpose interface—e.g., a small computer systems

interface (SCSI) interface—which includes both an interface card and specific driver software for the interface card. *Id*. at 3:49–55, 8:37–41. According to the '746 patent, SCSI interfaces were known to be present on most host devices or laptops. *Id*. at 8:37–41. By using a standard interface of a host device and by simulating an input/output device to the host device, the interface device "is automatically supported by all known host systems without any additional sophisticated driver software." *Id*. at 11:29–35.

C. Illustrative Claim

Of the challenged claims, claim 1 is independent. Claims 2–25 and 27–30 depend directly or indirectly from claim 1; claim 33 depends directly from independent claim 32 (not challenged); and claim 35 depends directly from independent claim 34 (not challenged). Claim 1 is illustrative:

> 1. An analog data acquisition device operatively connectable to a computer through a multipurpose interface of the computer, the computer having an operating system programmed so that, when the computer receives a signal from the device through said multipurpose interface of the computer indicative of a class of devices, the computer automatically activates a device driver corresponding to the class of devices for allowing the transfer of data between the device and the operating system of the computer, the analog data acquisition device comprising:
>
> a) a program memory;
>
> b) an analog signal acquisition channel for receiving a signal from an analog source;
>
> c) a processor operatively interfaced with the multipurpose interface of the computer, the program memory, and a data storage memory when the analog data acquisition device is operational;

> d) wherein the processor is configured and programmed to implement a data generation process by which analog data is acquired from the analog signal acquisition channel, the analog data is processed and digitized, and the processed and digitized analog data is stored in a file system of the data storage memory as at least one file of digitized analog data;
>
> e) wherein when the analog acquisition device is operatively interfaced with the multipurpose interface of the computer, the processor executes at least one instructions set stored in the program memory and thereby automatically causes at least one parameter indicative of the class of devices to be sent to the computer through the multipurpose interface of the computer, independent of the analog source, wherein the analog data acquisition device is not within the class of devices; and
>
> f) wherein the processor is further configured and programmed to execute at least one other instruction set stored in the program memory to thereby allow the at least one file of digitized analog data acquired from the analog signal acquisition channel to be transferred to the computer using the device driver corresponding to said class of devices so that the analog data acquisition device appears to the computer as if it were a device of the class of devices;
>
> whereby there is no requirement for any user-loaded file transfer enabling software to be loaded on or installed in the computer in addition to the operating system.

Ex. 1301, 11:48–12:26.

D. Prior Art Relied Upon

Petitioner relies upon the prior art references listed below.

McNeill	US 5,499,378	Mar. 12, 1996	(Ex. 1303)
Muramatsu	US 5,592,256	Jan. 7, 1997	(Ex. 1312)

Analogic, DASM-AD14, 14-Bits, 2 MHz A-to-D SCSI Substation for the Most Demanding Data Acquisition Applications (1992) (Ex. 1304, "DASM-AD14").

AMERICAN NATIONAL STANDARDS INSTITUTE, INC., AMERICAN NATIONAL STANDARD FOR INFORMATION SYSTEMS – SMALL COMPUTER SYSTEM INTERFACE-2, ANSI X3.131-1994 (1994) (Ex. 1305, "the SCSI Specification").

Admitted Prior Art (*see, e.g.*, 1:28–59).

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability (Pet. 16)[1]:

Challenged Claims	**Basis**	**Reference(s)**
1–12, 14, 15, 17–21, 24, 25, 27–30, 33, and 35	§ 102(b)	McNeill
1–22, 24, 25, 27–30, 33, and 35	§ 103(a)	McNeill
23	§ 103(a)	McNeill and Muramatsu
13, 16, and 22	§ 103(a)	McNeill and the Admitted Prior Art

[1] Because the claims at issue have a filing date prior to March 16, 2013, the effective date of the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) ("AIA"), we apply the pre-AIA version of 35 U.S.C. §§ 102 and 103 in this Decision.

II. ANALYSIS

A. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field." *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citation omitted). In that regard, Dr. Reynolds testifies that a person having ordinary skill in the art at the time of the invention "would have had at least a four-year degree in electrical engineering, computer science, or related field of study, or equivalent experience, and at least two [years of] experience in studying or developing computer interfaces or peripherals." Ex. 1306 ¶ 40. Dr. Reynolds further testifies that such an artisan also would have been "familiar with operating systems (e.g., MS-DOS, Windows, Unix) and their associated file systems (e.g., a [file allocation table ("FAT")] file system), device drivers for computer components and peripherals (e.g., mass storage device drivers), and communication interfaces (e.g., SCSI and PCMCIA interfaces)." *Id*.

Patent Owner confirms that Petitioner's statements regarding the level of ordinary skill in the art are mostly consistent with Patent Owner's view, but nonetheless contends that an ordinarily skilled artisan would have at least three years of experience, or, alternatively, five or more years of experience without a bachelor's degree. Prelim. Resp. 19. We do not observe any meaningful differences between the parties' definition of a

person of ordinary skill in the art. Our analysis in this Decision is supported by either level of skill. We further find that the prior art (e.g., Ex. 1305) in the instant proceeding reflects the level of ordinary skill in the art at the time of the invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

B. Claim Construction

In an *inter partes* review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b). Under the broadest reasonable interpretation standard, claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

We note that only those claim terms and elements which are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999). The parties propose constructions for several claim terms. Pet. 17–19; Prelim. Resp. 16–17, 20–28. For purposes of this Decision, however, we do not find it necessary to address explicitly any claim term.

C. Obviousness over McNeill

Petitioner asserts that claims 1–22, 24, 25, 27–30, 33, and 35 are unpatentable under 35 U.S.C. § 103(a) as obvious over McNeill and claims

13, 16, and 22 are obvious over McNeill combined with the Admitted Prior Art. Pet. 22–68.

Overview of McNeill

McNeill discloses a target computer for providing an initiator computer access to multiple peripheral devices—e.g., memory disks, printers, scanners, and communication devices. Ex. 1303, Abs. 1:9–2:51, 3:17–46. According to McNeill, the purported invention is to provide "a practical and economic system for achieving access to a multiplicity of peripherals in a SCSI environment." *Id*. at 3:17–22.

Figure 2 of McNeill is reproduced below.

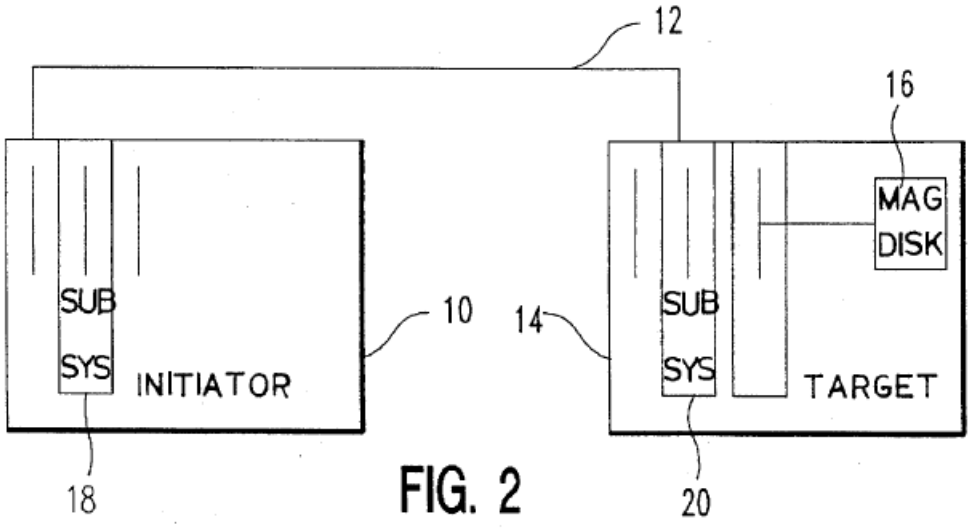


FIG. 2

As shown in Figure 2 of McNeill, initiator computer 10 is connected by SCSI I/O bus 12 to target computer 14. *Id*. at 4:44–53. Each computer includes SCSI subsystems 18, 20, which are SCSI adapter cards connected to SCSI I/O bus 12. *Id*. Initiator computer 10 can access and read the files on magnetic hard disk 16 of target computer 14. *Id*. at 4:44–53, 5:32–58.

The initiator computer sends standard SCSI I/O device driver commands, and the target computer responds to standard SCSI commands. *Id*. at 3:22–24, Figs 3–4. "The user has the benefit of not needing to learn and remember additional commands to access devices on the other computers", in that "standard device drivers are used as if the peripheral devices were integral with the basic system." *Id*. at 3:35–38.

Claim 1

Patent Owner argues that "Petitioners fail to identify where McNeill discloses an analog signal acquisition channel" (Prelim. Resp. 36) and does not show that "this missing element must inherently, i.e., necessarily, be present based on McNeill's disclosure" (*id.* at 39). We agree with Patent Owner and determine that Petitioner has not shown sufficiently that McNeill discloses or would have made obvious an "analog signal acquisition channel" as required by claim 1. *Id*. at 40.

In its analysis of the data acquisition channels, Petitioner states only that "McNeill discloses that the target system can emulate any type of peripheral" one type of which is a scanner. Pet. 35. According to Petitioner "[i]t is implicit and inherent for a scanner to have an analog signal acquisition channel for receiving a signal from analog source." *Id.* Petitioner goes on to assert that a typical scanner, as of the priority date, would produce a digital representation of an image and transmit that image "to an interface device (e.g. McNeill's target computer) across a peripheral device communications channel, such as a SCSI bus or a parallel bus conforming to the IEEE 1284 standard." *Id.* (citing Ex. 1306 ¶ 98). Nothing

in this analysis, however, explains how the communications channel is an *analog* data acquisition channel. Nor does Petitioner point to anything else in McNeill that it is relying on for disclosure of such an analog data acquisition channel. *Id.*

Finally, Petitioner does not sufficiently explain why a person of ordinary skill would find the addition of an analog data acquisition channel obvious in light of the teachings of McNeill. *See* Pet. 35. Petitioner's only discussion of this issue confusingly states that "[a]dding an analog sensor to the 'exemplary system' of McNeill is inherent, but if it is not, a POSITA would find it obvious to do so." *Id.* The '746 patent, however, does not use the term "sensor" in the claims. Ex. 1301. And Petitioner does not explain how an "analog sensor" relates to an "analog signal acquisition channel." *Id.* Even assuming that a person of ordinary skill would find obvious adding an "analog sensor" based on McNeill's disclosure, it is unclear why or how that would result in "an analog signal acquisition channel," and it is Petitioner's burden to provide sufficiently articulated reasoning for the alleged modification of McNeill resulting in an "analog signal acquisition channel."

For these reasons, we determine that Petitioner has not established sufficiently, for purposes of this Decision, that claim 1 would have been unpatentable as obvious over McNeill.

Claims 2–25 and 27–30

Petitioner challenges claims 2–25 and 27–30 as obvious over McNeill, claim 23 is obvious over McNeill and Muramatsu, and claims 13, 16, and 22

as obvious over McNeill combined with the Admitted Prior Art. All these claims depend either directly or indirectly from claim 1. Petitioner relies on its analysis of claim 1 for the analog signal acquisition channel limitation of these dependent claims. Pet. 48–64. For example, for claim 23, Petitioner relies on Muramatsu solely for the disclosure of a fast Fourier transform. *Id.*at 59–61. When discussing claims 13, 16, and 22, Petitioner relies on the sections of the '746 patent that discuss the example of a multimeter and medical device for the limitations recited in these claims. *Id.* at 66–68 (citing Ex. 1301, 1:28–30, 56–59). For the same reasons discussed above for claim 1, we determine that Petitioner has not established sufficiently, for purposes of this Decision, that claims 2–25 and 27–30 would have been unpatentable as obvious over McNeill.

Claims 33 and 35

Petitioner challenges claims 33 and 35 as obvious over McNeill. Claim 33 depends from claim 32 and recites "wherein the processor further comprises a plurality of independent analog data acquisition channels for simultaneously acquiring analog data in parallel from a plurality of analog sources." Ex. 1301, 15:10–14. Claim 35 depends from claim 34 and recites "further comprising simultaneously acquiring the analog data from each respective analog channel of a plurality of respective independent acquisition channels under control of the processor and acquiring analog data from the analog source time independent of transferring the acquired analog data to the host device." Ex. 1301, 16:18–23.

As discussed above, we determine that Petitioner has not established sufficiently, for purposes of this Decision, that McNeill renders obvious the "analog signal acquisition channel" limitation, as required by claim 1. Although claims 33 and 35 depend from independent claims (32 and 34) that do not include this limitation, both claims 33 and 35 require a "plurality of independent analog data acquisition channels."[2] Petitioner's discussion of claims 33 and 35 focuses on the "plurality" portion of the limitation, but relies on its insufficient analysis of claim 1's "analog data acquisition channel" for the remainder of the limitation. *See* Pet. 64–66 (explaining that "McNeill's target computer could have multiple peripheral devices attached to it currently," thus "the initiator is receiving digitized analog data from two sources at the same time."). Nowhere does Petitioner identify what, exactly, in McNeill it is relying on to show the "analog data acquisition channel." *Id.* We, therefore, determine, for the same reasons discussed in relation to "analog signal acquisition channel" limitation of claim 1, that Petitioner has not shown sufficiently that McNeill discloses, or would have made obvious to a person of ordinary skill, a "plurality of independent analog data acquisition channels."

For these reasons, we determine that Petitioner has not established sufficiently for purposes of this Decision that claims 33 and 35 would have been unpatentable as obvious over McNeill.

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[2] Claim 35 recites acquiring analog data from "each respective analog channel of a plurality of respective independent acquisition channels." Ex. 1301, 16:18–23.

D. Other Asserted Ground of Unpatentability

Petitioner additionally asserts that the challenged claims are unpatentable under § 102(b) as anticipated by McNeill. For the same reasons discussed above in relation to the obviousness challenges to claims 1–25, 27–30, and 33, we are not persuaded that Petitioner has shown a reasonable likelihood of prevailing on anticipation for any of the challenged claims.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail in challenging claims 1–25, 27–30, 33, and 35 of the '746 patent. We, therefore, decline to institute *inter partes* review on any of the asserted grounds as to any of the challenged claims. 37 C.F.R. § 42.108.

IV. ORDER

It is ordered that the Petition is *denied* as to all challenged claims, and no trial is instituted.

For PETITIONER:

Gregory Cordrey
JEFFER MANGELS BUTLER & MITCHELL, LLP
gcordrey@jmbm.com

T. Vann Pearce, Jr.
Christopher J. Higgins
ORRICK, HERRINGTON & SUTCLIFFE LLP
TVPPTABDocket@orrick.com
0CHPTABDocket@orrick.com

David M. Maiorana
F. Drexel Feeling
Matthew W. Johnson
David L. Witcoff
Marc S. Blackman
JONES DAY
dmaiorana@jonesday.com
f.dfeeling@jonesday.com
mwjohnson@jonesday.com
dlwitcoff@jonesday.com
msblackman@jonesday.com

Dion Bregman
MORGAN, LEWIS & BOCKIUS LLP
Dion.bregman@morganlewis.com

For PATENT OWNER:

Nicholas T. Peters
Paul Henkelmann
FITCH, EVEN, TABIN & FLANNERY LLP
ntpete@fitcheven.com

phenkelmann@fitcheven.com

Anthony Meola, Jr.
The Meola Firm, PLLC
info@themeolafirm.com