

accused devices and also “data transmit/receive devices” that can be attached to the accused cameras. Because the invented “interface device” is a stand-alone device that is separate and apart from any data transmit/receive device, the Camera Manufacturers contend that a memory card cannot be both part of the interface device and a data transmit/receive device as Papst alleges. The Court agrees. The motion for summary judgment will be granted.

I. FACTS

The invention at issue is a “Flexible Interface for Communication Between a Host and an Analog I/O Device Connected to the Interface Regardless of the Type of the I/O Device.” 399 Patent, Title; 449 Patent, Title. An I/O device is an input/output device, repeatedly referred to as a “data transmit/receive device” in the Patents. *See, e.g.*, 399 Patent 3:43-44 & 13:1-2; 449 Patent 4:6-7 & 11:63-64.² The 399 Patent was issued on October 22, 2002, with an application date of March 3, 1998; the 449 Patent was issued on May 17, 2005, with an application date of August 15, 2002. The patented “Flexible Interface Device” was invented by Michael Tasler; it has never been manufactured. Papst now owns the Patents.

The 449 Patent is a continuation or divisional patent³ that is quite similar to the 399 Patent. The Patents share the same block diagram drawings, Figures 1 and 2. *See, e.g.*, 399 Patent 9:15-16 (“Figure 2 shows a detailed block diagram of an interface device, according to the present invention”); 449 Patent 8:15-16 (same). The 399 and 449 Patents also share much of the same specification. Even so, the 449 Patent covers other aspects of the invention; as relevant to this Opinion, one key difference is that the 449 Patent omits references to analog-to-digital data conversion.

² Citations to the Patents are to “column number: line number.”

³ As a continuation patent, Papst asserts that the 449 Patent has priority dating back to the 399 Patent.

The invention, a flexible “interface device,” was designed to provide data transfer between a transmit/receive device and a computer (host device) without the need for special software; this is accomplished by telling the computer that the interface device is an I/O device already known to the computer (and for which the computer already has drivers), regardless of what kind of I/O device actually is attached to the interface device. 449 Patent, Abstract; 399 Patent, Abstract; *see also* 449 Patent 5:19-22 (in the preferred embodiment, “[r]egardless of which data transmit/receive device at the output line 16 is attached to the second connecting device, the digital signal processor 13⁴ informs the host device that it is communicating with a hard disk drive”); 399 Patent 6:19-22 (same). The invention is to provide “an interface device for communication between a host device and a data transmit/receive device whose use is host device-independent and which delivers a high data transfer rate.” 449 Patent 3:20-23; 399 Patent 3:24-27. The Patents are “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, normally present in most commercially available host devices, is utilized,” instead of special driver software. 449 Patent 3:27-31; 399 Patent 4:23-27. In other words, the invention seeks to capitalize on software customarily found in a computer to allow communication with a data transmit/receive device.

Pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996), a court is required to construe the contested claims of the patents before a jury can determine whether the accused products infringe. In claims construction, a court must interpret the words of each contested claim from the perspective of one skilled in the art at the time of invention, in light of the patent documents and the prosecution history. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313

⁴ The specification often refers to block diagrams, Figures 1 and 2, by identifying elements by number as they appear in the Figures.

(Fed. Cir. 2005). The Court construed the contested claims of the 399 and 449 Patents. *See* Modified Claims Construction Opinion [Dkt. 336] (Claims Constr. Op.); Order [Dkt. 337].

Claim One of the 449 Patent states:

What is claimed is:

1. An *interface device* for communication between a host device, which comprises drivers for input/output devices customary in a host device and a multi-purpose interface, and a data transmit/receive device comprising the following features:

a processor;

a *memory*;

a first connecting device for interfacing the host device with the interface device via the multi-purpose interface of the host device; and

a second connecting device for interfacing the interface device with the data transmit/receive device,

wherein the interface device is configured by the processor and the memory in such a way that the interface device, when receiving an inquiry from the host device as to the type of a device attached to the multi-purpose interface of the host device, sends a signal, *regardless of the type of the data transmit/receive device attached to the second connecting device of the interface device*, to the host device which signals to the host device that it is a storage device customary in a host device, whereupon the host device communicates with the interface device by means of the driver for the storage device customary in a host device, and

wherein the interface device is arranged for simulating a virtual file system to the host, the virtual file system including a directory structure.

449 Patent 11:45-67 & 12:1-6 (emphasis added); *see also* 399 Patent 12:41-67 & 13:1-13 (as relevant here, substantially the same as the 449 Patent, except that the “data transmit/receive device” is described as “being arranged for providing analog data”).

During claims construction, the Court determined that the invented “interface device” is a “stand-alone” device. Claims Constr. Op. at 18. The Court expressly noted: “That the data transmit/receive device must be a separate device from the invention is not mere happenstance but an integral aspect of what was invented.” *Id.* at 19. The Court also explained that the interface device can be *attached* to separate data transmit/receive devices. *Id.* at 19, 21; *see* 449 Patent 6:40-43 (because an operator could program the interface device, users could “perform essentially identical operator actions for almost any data transmit/receive devices which *can be attached* to the second connecting device via the line 16” (emphasis added)); 399 Patent 7:40-43 (same). Further, the Court found that the language in Claim One stating “regardless of the type of the data transmit/receive device attached” indicates that various kinds of data transmit/receive devices can be attached and that, therefore, the interface device was not a permanent part of either the data transmit/receive device or the host device/computer. Claims Constr. Op. at 19; *see* 449 Patent 11:59-67 (“the interface device . . . sends a signal, *regardless of the type of the data transmit/receive device attached* to . . . the interface device . . . , to the host device which signals to the host device that it is a storage device customary in a host device . . .” (emphasis added)); 399 Patent 13:1-5 (highlighted portion the same; substituting the term “input/output device” for the term “storage device”).

In explaining that the interface device “stands alone,” the Court noted that the Figures that accompany each Patent indicate that “the data transmit/receive device is off the sheet, out of sight, not part of the Figure, and not part of the invention.” Claims Constr. Op. at 22. Thus, “Claim One contemplates and intends that a variety of transmit/receive devices may be connected to the interface device, which is also connected to the computer. To fulfill Claim One, the ‘interface device’ must, therefore, be a ‘stand-alone device.’” *Id.* at 24.

Further, Claim One of the Patents describes the interface device as having a memory, meaning “any type of memory.” *Id.* at 73. In addition, the Court construed the term “data transmit/receive device” to mean “a device that is capable of either (a) transmitting data to *or* (b) transmitting data to and receiving data from the host device when connected to the host device by the interface device.” *Id.* at 31. In sum, the “interface device” claimed in the Patents is, in relevant part, (1) a stand-alone device (2) that has a memory and that (3) connects to a separate data transmit/receive device for the purpose of data transfer between a transmit/receive device and a computer, without the need for special software.

Memory cards used in digital cameras and other accused devices are detachable; they can be inserted into slots on many of the accused products. They are thus distinguishable from internal memory, which is nondetachable. As described in detail below, Papst identified memory cards as both the “memory” of accused devices and a “data transmit/receive device” to which an accused device may attach.

II. LEGAL STANDARD

Under Rule 56 of the Federal Rules of Civil Procedure, summary judgment shall be granted “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *accord Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247 (1986). Moreover, summary judgment is properly granted against a party who “after adequate time for discovery and upon motion . . . fails to make a showing sufficient to establish the existence of an element essential to that party’s case, and on which that party will bear the burden of proof at trial.” *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

In ruling on a motion for summary judgment, the court must draw all justifiable inferences in the nonmoving party's favor. *Anderson*, 477 U.S. at 255. A nonmoving party, however, must establish more than “the mere existence of a scintilla of evidence” in support of its position. *Id.* at 252. The nonmoving party must point out specific facts showing that there is a genuine issue for trial. *Celotex*, 477 U.S. at 324. In addition, the nonmoving party may not rely solely on allegations or conclusory statements. *Greene v. Dalton*, 164 F.3d 671, 675 (D.C. Cir. 1999). Rather, the nonmoving party must present specific facts that would enable a reasonable jury to find in its favor. *Id.* at 675. If the evidence “is merely colorable, or is not significantly probative, summary judgment may be granted.” *Anderson*, 477 U.S. at 249-50 (citations omitted). Summary judgment can be granted in a patent case if there is no dispute over the structure of the accused products, at which point the question of infringement “collapses” into the question of claim construction and may be resolved by the court. *Desper Prods. Inc. v. QSound Labs Inc.*, 157 F.3d 1325, 1332-33 (Fed. Cir. 1998).

III. ANALYSIS

A. 399 Patent

Because memory cards provide digital and not analog data, Papst withdrew its assertion that memory cards constitute “data transmit/receive devices” for the purpose of the 399 Patent, which requires the data transmit/receive device to send analog data. Opp. Re Memory Cards [Dkt. 480] at 3 n.2 (“Papst withdraws its assertion that memory cards constitute DTRDs [data transmit/receive devices] for purposes of the 399 [P]atent that calls for the DTRD to input analog data.”); *see also* Opp. HP's Mot. Summ. J. [Dkt. 470] at 25 (accused cameras that receive digital data, and not analog data, from memory cards and USB connectors do not infringe the

399 Patent).⁵ Accordingly, summary judgment of noninfringement of the 399 Patent will be granted to the Camera Manufacturers as to Papst's claim that memory cards are data transmit/receive devices.⁶

B. 449 Patent

The Court thus turns solely to the 449 Patent. To prove literal infringement, a patentee must prove that the accused product satisfies each and every limitation of a claim. *Warner-Jenkinson Co. v. Hilton-Davis Chem. Co.*, 520 U.S. 17, 29 (1997); *Rohm & Haas v. Brotech Corp.*, 127 F.3d 1089, 1092 (Fed. Cir. 1997). The accused products include digital cameras and other devices that Papst asserts are "interface devices" that infringe the 449 Patent.

As described above, Claim One of the 449 Patent claims an "interface device," which has a "memory" and interfaces with a "data transmit/receive device." Papst claims that the accused devices are interface devices that satisfy the limitations of the 449 Patent and, therefore, infringe. *See generally* Final Infringement Contentions [Dkt. 416] (FICs). Papst's Final Infringement Contentions, however, are inconsistent with the Court's construction of the claims. To support its contention that cameras constitute "interface devices," Papst contends that memory cards are part of the "memory" of the cameras and that memory cards constitute "data transmit/receive devices" that can be attached to the cameras. In other words, Papst claims that certain accused devices include memory cards that constitute *both* the "memory" of the accused devices *and* the "data transmit/receive device" that exchanges data with the accused devices.

This is not a viable infringement claim under the Court's claims construction.

⁵ The "second connecting device" in the 399 Patent receives analog data from the data transmit/receive device. *See* Claims Constr. Op. at 40.

⁶ Papst moved for more discovery on the memory card issue, *see* Mot. for Rule 56(d) Discovery [Dkt. 479], but later withdrew that portion of its motion. *See* Reply in Support of Mot. for Rule 56(d) Discovery [Dkt. 515] at 1.

The Final Infringement Contentions repeatedly assert that many of the accused devices meet the memory claim limitation because they “include a memory card”:

Certain devices in suit have no internal flash memory for storage of images or other data. Such devices nevertheless have other memory, including RAM and memory for storage of device firmware. Additionally, *such devices include a memory card and instructions for a consumer to install the memory card in the device. The device has no substantial use without installation of the memory card as directed.* Accordingly, such devices literally infringe under 35 U.S.C. § 271(a) or, in the alternative, indirectly infringe under 35 U.S.C. § 271(b)-(c).

FICs at 19-20 (Part C, “Memory”) (emphasis added); *see also* FICs at 61 & 66 (claiming that the “memory” limitation is satisfied because “the interface portion of MSC Capable Devices addressed herein include memories. Also, a socket is typically provided for adding a memory card.”) Papst concedes that many of the accused products have no internal flash memory for storage of image and movie files and thus have “no substantial use without installation of the memory card.” *Id.* at 19-20.⁷

In its Final Infringement Contentions, Papst also accuses various products of infringement based on the theory that memory cards are data transmit/receive devices.

MSC Capable Devices and PTP Capable Devices typically include a physical plug or socket for receiving a memory card. . . . For example, SD Card connectors also support Secure Digital Input/Output (“SDIO” devices). An SDIO device is based on, and is compatible with, the SD Memory Card connector. The

⁷ Many of the accused products have no internal memory and can only store files on a memory card. Other accused devices have internal memory of varying capacities. The Final Infringement Contentions do not treat products without internal memory for storing images differently from products with internal memory. Whether accused devices with nondetachable memory meet the claim limitations of the Patents is not addressed here, as it is not relevant to the motion for summary judgment based on “memory cards.” Similarly, Papst’s contention that fact issues preclude summary judgment because it cannot discern how nondetachable memory works has no relevance to the argument regarding detachable memory cards.

compatibility includes mechanical, electrical, power, signaling and software. SDIO cards have many dissimilar functions. Some SDIO cards have interfaces which obtain information and store it in memory on the card, which may be accessed by an interface device of the devices-in-suit. For example, an “Eye-Fi” Card device may be a data transmit/receive device because it obtains certain information wirelessly and stores a portion of it in memory. Additional discovery of multi-function memory cards is required. The memory may be accessed by a host computer when the device is connected to the USB interface of the host computer. The Compact Flash (“CF”) Card connectors also allow connection of numerous dissimilar devices. The memory card connectors may therefore allow a user to readily attach or detach a plurality of dissimilar devices. Devices having connectors for memory cards are identified in . . . table 5 below.

FICs at 25. Table 5 of the Final Infringement Contentions, entitled “Devices having memory card connectors,” lists numerous accused products that have memory card slots for connection to various types of memory cards, including SD (Secure Digital) devices, CF (CompactFlash) devices, XD devices, and SmartMedia devices. *Id.* at 93-124 (Table 5).

Papst’s Final Infringement Contentions are inconsistent regarding its claim of infringement based on the use of memory cards by accused devices. A memory card cannot be *both* a data transmit/receive device and part of an interface device. The Court made clear in its claims construction opinion that the interface device is separate and distinct from the data transmit/receive device. The block diagram Figures that accompany each Patent indicate that “the data transmit/receive device is off the sheet, out of sight, not part of the Figure, and not part of the invention.” Claims Constr. Op. at 22. The basic function of the invention was to facilitate fast communication between dissimilar data transmit/receive devices and a computer. *See* 449 Patent 3:20-23 (the invention is “an interface device for communication between a host device and a data transmit/receive device whose use is host device-independent and which delivers a high data transfer rate”). The interface device claimed in the Patent does not include the dissimilar data transmit/receive devices; the Patent describes data transmit/receive devices as

something to which the interface device is “attached.” *See* Claims Constr. Op. at 19-21; *see* 449 Patent 6:40-43 (users could “perform essentially identical operator actions for almost any data transmit/receive devices which *can be attached* to the second connecting device via the line 16” (emphasis added)); 449 Patent 11:59-67 (“the interface device . . . sends a signal, *regardless of the type of the data transmit/receive device attached* to the second connecting device of the interface device . . .” (emphasis added)). Even the title of the invention—“Flexible Interface for Communication Between a Host and an Analog I/O Device Connected to the Interface Regardless of the Type of the I/O Device”—refers to communication between a computer and a data transmit/receive device connected to (and not a part of) the interface device. *See* 449 Patent, Title.

The interface device stands alone. Papst’s claim—that accused products infringe because they use memory cards which satisfy the “memory” limitation *and* which satisfy the “data transmit/receive device” limitation of the Patent—fails because it is contrary to the 449 Patent and the Court’s construction of its fundamental aspects.

It does not matter that the Final Infringement Contentions include allegations that some accused devices use multiple function memory cards, such as Eye-Fi and SDIO Cards, which include memory plus transmit/receive functions. *See* FICs at 9, 25. If any part of the memory card is part of the interface device, the memory card cannot be (in whole or in part) the “data transmit/receive device.”

Papst seeks to escape its own Final Infringement Contentions by now contending that memory cards “are believed not to be required to perform the functions recited in the claims.” *See* Opp. at 1. Papst’s entire Opposition disavows reliance on memory cards to fulfill the required “memory” claim of the interface device. *See id.* at 11 (“It is the processor and the

non-detachable memory that perform the functions required by the claims. The detachable memory is not where those functions are performed.” (citation omitted)).

Papst might intend to assert some new theory of infringement. However, it is years too late for new theories. The Court ordered Papst to file final infringement contentions in compliance with detailed requirements. *See* Mot. for Sanctions [Dkt. 388], Ex. A (Tr. of Aug. 31, 2010 Hearing); Sixth Prac. & Pro. Order (Sixth PPO) [Dkt. 372]. Because Papst filed Final Infringement Contentions that failed to comply with Court’s orders, the Court barred Papst from advancing any arguments for infringement (or against claims of noninfringement) that either (1) are not based solely on this Court’s constructions of the Patents or (2) are not already set forth specifically and explicitly in Papst’s Final Infringement Contentions. *See* Sanctions Op. [Dkt. 429] at 13; Sanctions Order [Dkt. 430] at 2. In the instant motion for summary judgment, the Camera Manufacturers have pointed out that the Final Infringement Contentions include a claim for infringement (based on memory cards as both “memory” and “data transmit/receive device”) that is outside the parameters of the Court’s construction of the Patent. Because it does not comport with the Court’s claim construction, this theory of infringement fails.

C. Doctrine of Equivalents

The doctrine of equivalents is inapplicable here. The essential inquiry in a determination under the doctrine of equivalents is whether “the accused product or process contains elements identical or equivalent to each claimed element of the patented invention.” *Am. Calcar, Inc. v. Am. Honda Motor Co.*, 651 F.3d 1318, 1338 (Fed. Cir. 2011) (quoting *Warner-Jenkinson*, 520 U.S. at 40). An element in an accused product is deemed to be equivalent to a claim limitation if the difference between the two is “insubstantial” to a person of ordinary skill in the art. *Wavetronix v. EIS Elec. Integrated Sys.*, 573 F.3d 1343, 1360 (Fed. Cir.

2009). In order to assess insubstantiality, a court considers whether an element of the accused product “performs substantially the same function in substantially the same way to obtain the same result” as the patented invention. *Am. Calcar*, 651 F.3d at 1338. This is often referred to as the “function/way/result test.” *Id.* A patentee alleging infringement under the doctrine of equivalents must submit particularized evidence of equivalence and must explain specifically why the difference between what the claims literally require and what the accused products actually do is “insubstantial.” *Id.*

Papst’s Final Infringement Contentions fail to assert any claims regarding memory cards and the doctrine of equivalents. As explained above, Papst failed to comply with Court orders and the Court imposed a sanction. Papst is precluded from advancing any arguments for infringement (or against claims of noninfringement) that either (1) are not based solely on this Court’s constructions of the Patents or (2) are not already set forth specifically and explicitly in Papst’s Final Infringement Contentions. *See* Sanctions Op. [Dkt. 429] at 13; Sanctions Order [Dkt. 430] at 2. Accordingly, Papst cannot now add a claim for infringement under the doctrine of equivalents.⁸

Moreover, the doctrine of equivalents may not be used to recapture a disavowed claim. *Sunbeam Prods. Inc. v. Homedics, Inc.*, 412 F. App’x 263, 268 (Fed. Cir. 2010); *see also Phillips*, 415 F.3d at 1316 (a specification may reveal an intentional disclaimer); *J & M Corp. v. Harley-Davidson, Inc.*, 269 F.3d 1360, 1366 (Fed. Cir. 2001) (the scope of equivalents may be limited by disclaimers in the specification). “When a patent thus describes the features of the

⁸ Further, Papst’s opposition to the motion for summary makes only the bald assertion that the Camera Manufacturers “infringe under the doctrine of equivalents.” *See* Opp. at 33. Papst’s vague and conclusory contention that the accused devices infringe under the doctrine equivalents via their use of memory cards does not satisfy the level of specificity that the Court required, and thus Papst has waived such a claim. *See* Sanctions Op. at 7-13.

‘present invention’ as a whole, this description limits the scope of the invention.” *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007). The specification of the 449 Patent describes “*the invention*” as separate from the data transmit/receive device:

In the interface device according to *the* present invention an enormous advantage is to be gained, as apparent in the embodiment described in the following, *in separating the actual hardware required to attach the interface device 10 to the data transmit/receive device*

449 Patent 7:23-27 (emphases added). Papst’s infringement claim regarding memory cards is not saved from dismissal based on the doctrine of equivalents.

IV. CONCLUSION

The Camera Manufacturers’ motion for summary judgment of noninfringement on the basis of memory cards [Dkt. 446] will be granted.⁹ Memory cards do not produce analog data, and thus they cannot constitute a “data transmit/receive device” that would lead to infringement of the 399 Patent. Further, memory cards cannot be both the “memory” of an accused device and the “data transmit/receive device” to which an accused device may be attached. *See* Claims Constr. Op. at 16-24. Summary judgment will be granted in favor of the Camera Manufacturers with regard to all such infringement claims. The products identified in Papst’s Final Infringement Contentions do not infringe the claims of the 399 or the 449 Patents either literally or under the doctrine of equivalents based on memory cards (including ordinary memory cards, SD (Secure Digital) devices, CF (CompactFlash) devices, XD devices, SmartMedia devices, SDIO cards, and Eye-Fi cards) because such memory cards do not meet the

⁹ Papst moved to file a surreply in opposition to the Camera Manufacturers’ motion for summary judgment regarding memory cards. *See* Mot. for Leave to File Surreply [Dkt. 511]. Because surreplies are disfavored in this district and because the Camera Manufacturers’ reply brief did not raise new issues, the motion to file a surreply will be denied. *See Crummey v. Social Security Admin.*, 794 F. Supp. 2d 46, 62 (D.D.C. 2011).

