

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

MOBILEMEDIA IDEAS, LLC,)
)
 Plaintiff,)
)
 v.) Civ. No. 10-258-SLR
)
APPLE INC.,)
)
 Defendant.)

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MEMORANDUM OPINION

Dated: November 8, 2012
Wilmington, Delaware


ROBINSON, District Judge

I. INTRODUCTION

Plaintiff MobileMedia Ideas, LLC (“MobileMedia”) filed a patent infringement complaint against Apple Inc. (“Apple”) on March 31, 2010, alleging infringement of fourteen of its patents: U.S. Patent Nos. 6,070,068 (“the ‘068 patent”), 6,253,075 (“the ‘075 patent”), RE39231 (“the ‘231 patent”), 5,737,394 (“the ‘394 patent”), 6,427,078 (“the ‘078 patent”), 6,441,828 (“the ‘828 patent”), 6,549,942 (“the ‘942 patent”), 6,393,430 (“the ‘430 patent”), 6,002,390 (“the ‘390 patent”), 6,446,080 (“the ‘080 patent”), 6,760,477 (“the ‘477 patent”), 7,313,647 (“the ‘647 patent”), 7,349,012 (“the ‘012 patent”), and 5,915,239 (“the ‘239 patent”). (D.I. 1) On July 16, 2010, MobileMedia amended its complaint to assert infringement of two additional patents: U.S. Patent Nos. 6,725,155 (“the ‘155 patent”) and 5,490,170 (“the ‘170 patent”). (D.I. 8) Subsequently, Apple answered and asserted affirmative defenses of, *inter alia*, noninfringement, invalidity, unenforceability, failure to state a claim, “waiver, laches and/or estoppel,” prosecution history estoppel, and lack of standing. (D.I. 10 at ¶¶ 114-23) On March 2, 2012, Apple filed a motion to dismiss on grounds that MobileMedia lacked standing to sue for infringement of the patents-in-suit. The court denied the motion. (D.I. 441) Discovery closed on May 4, 2012. (D.I. 225)

On April 4, 2012, the parties stipulated to dismiss the claims and counterclaims related to the ‘390 patent and the ‘647 patent. (D.I. 263) On April 25, 2012, MobileMedia deferred four patents (the ‘080, ‘477, ‘012, and ‘239 patents) for a later phase, leaving ten patents-in-suit. Currently remaining before the court are several summary judgment motions: Apple’s motions for summary judgment of invalidity and

non-infringement (D.I. 305; D.I. 328); and MobileMedia's motions for summary judgment of no invalidity and for partial summary judgment on Apple's affirmative defenses of estoppel, waiver, and prosecution history estoppel (D.I. 300; D.I. 329). Apple also filed a motion to strike MobileMedia's newly proposed claim constructions and claim terms, and both parties filed motions to strike portions of expert reports and declarations. (D.I. 265, 377, 414) The court has jurisdiction over these matters pursuant to 28 U.S.C. § 1338.

II. BACKGROUND

A. The Parties

MobileMedia is a Delaware LLC with its principal place of business in Chevy Chase, Maryland. (D.I. 8 at ¶ 1) It obtained the patents-in-suit in January 2012 from Nokia Capital, Inc. and Sony Corporation of America pursuant to two Patent Purchase Agreements. (D.I. 228, ex. D; ex. G) Apple Inc. is a California corporation with its principal place of business in Cupertino, California. (D.I. 10 at ¶ 2) It designs, manufactures, markets, and sells the accused products. (*Id.*)

B. The Patents-in-Suit

The ten remaining patents-in-suit relate to a variety of technologies in information processing, computing, mobile phones, and media player devices. The '068, '075, and '231 patents relate to technology for rejecting, silencing, and merging incoming second calls on mobile telephones already connected to a first call. The '078 and '394 patents relate to changeable keys and cameras, respectively, on mobile devices. The '828 patent teaches a device that changes display orientation so that the display image is

always upright. The '155 patent relates to a method and apparatus for obtaining navigation guidance. The '170, '942, and '430 patents pertain to multimedia – the '170 patent is for compressing and expanding audio data, the '942 patent is for portable audio storage and playback, and the '430 patent relates to audio and video playlists. Apple has moved for summary judgment of non-infringement of all of the asserted claims of all ten patents-in-suit. (D.I. 328) The parties have cross-moved for summary judgment regarding the validity of all of the asserted claims of eight (excluding the '231 and '430 patents) of the patents-in-suit. (D.I. 305; D.I. 329) Presented with the variety of technology underlying the ten patents-in-suit, the court will provide a more detailed description of the technologies when discussing each patent in the context of the summary judgment issues.

C. The Accused Products

MobileMedia alleges that various Apple products infringe thirty claims of the ten patents-in-suit. Specifically, it alleges that Apple's iPhone 3G, iPhone 3GS, and iPhone 4 products (collectively, "iPhones" or "accused iPhones") infringe claims 1, 7, 8, 23, and 24 of the '068 patent, claims 5, 6, and 10 of the '075 patent, claims 2, 3, 4, and 12 of the '231 patent, claims 1, 2, 3, 8, and 73 of the '078 patent, and claim 18 of the '394 patent. It also alleges that Apple's iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch, and iPod shuffle infringe claims 17 and 18 of the '828 patent, claims 1 and 5 of the '430 patent, and claim 49 of the '170 patent; that Apple's iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, and iPad 2 WiFi + 3G infringe claims 1, 2, 4, and 5 of

the '155 patent; that Apple's iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod nano, and iPod touch infringe claims 1, 6, and 8 of the '942 patent; and that Apple's iPod classic infringes claim 1 of the '942 patent.

In summary:

Accused Products	Patent(s)-in-Suit	Claim(s)-at-Issue
iPhone 3G, iPhone 3GS, iPhone 4	The '075 patent	5, 6, 10
	The '231 patent	2, 3, 4, 12
	The '068 patent	1, 7, 8, 23, 24
	The '394 patent	18
	The '078 patent	1, 2, 3, 8, 73
iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch, iPod shuffle	The '828 patent	17, 18
	The '430 patent	1, 5
	The '170 patent	49
iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G	The '155 patent	1, 2, 4, 5
iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch	The '942 patent	1
iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod nano, iPod touch	The '942 patent	6, 8

III. STANDARD OF REVIEW

“The court shall grant summary judgment 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). The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 415 U.S. 574, 586 n.10 (1986). A party asserting that a fact cannot be—or, alternatively, is—genuinely disputed must demonstrate such, either by citing to “particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for the purposes of the motions only), admissions, interrogatory answers, or other materials,” or by “showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has carried its burden, the nonmovant must then “come forward with specific facts showing that there is a genuine issue for trial.” *Matsushita*, 415 U.S. at 587 (internal quotation marks omitted). The court will “draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence.” *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the non-moving party must “do more than simply show that there is some metaphysical doubt as to the material facts.” *Matsushita*, 415 U.S. at 586-87; see also *Podohnik v. U.S. Postal Service*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment “must present more

than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue”) (internal quotation marks omitted). Although the “mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment,” a factual dispute is genuine where “the evidence is such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.*, 411 U.S. 242, 247-48 (1986). “If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted.” *Id.* at 249-50 (internal citations omitted); see also *Celotex Corp. v. Catrett*, 411 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated “against a party who 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”).

A. Claim Construction

Claim construction is a matter of law. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1330 (Fed. Cir. 2005) (en banc). Claim construction focuses on intrinsic evidence – the claims, specification and prosecution history – because intrinsic evidence is “the most significant source of the legally operative meaning of disputed claim language.” *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996); *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Claims must be interpreted from the perspective of one of ordinary skill in the relevant art at the time of the invention. *Phillips*, 415 F.3d at 1313.

Claim construction starts with the claims, *id.* at 1312, and remains centered on the words of the claims throughout. *Interactive Gift Express, Inc. v. Compuserve, Inc.*,

256 F.3d 1323, 1331 (Fed. Cir. 2001). In the absence of an express intent to impart different meaning to claim terms, the terms are presumed to have their ordinary meaning. *Id.* Claims, however, must be read in view of the specification and prosecution history. Indeed, the specification is often “the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315.

A means-plus-function limitation recites a function to be performed rather than structure or materials that perform the function, and such a limitation, therefore, must be construed “to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.” 35 U.S.C. § 112, ¶ 6 (1994); *Chiuminatta Concrete Concepts, Inc. v. Cardinal Industries, Inc.*, 145 F.3d 1303, 1307-8 (Fed. Cir.1998). For an accused structure to literally infringe a means-plus-function limitation, “the accused structure must either be the same as the disclosed structure or be an ‘equivalent,’ i.e., (1) perform the identical function and (2) be otherwise insubstantially different with respect to structure.” *Kemco Sales, Inc. v. Control Papers Co., Inc.*, 208 F.3d 1352, 1364 (Fed. Cir.2000). “[S]tructures may be ‘equivalent’ for purposes of section 112, paragraph 6 if they perform the identical function, in substantially the same way, with substantially the same result.” *Id.*

B. Infringement

A patent is infringed when a person “without authority makes, uses or sells any patented invention, within the United States . . . during the term of the patent.” 35 U.S.C. § 271(a). To prove direct infringement, the patentee must establish, by a preponderance of the evidence, that one or more claims of the patent read on the

accused device literally or under the doctrine of equivalents. See *Advanced Cardiovascular Sys., Inc. v. Scimed Life Sys., Inc.*, 261 F.3d 1329, 1336 (Fed. Cir. 2001). A two-step analysis is employed in making an infringement determination. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 976 (Fed. Cir. 1995). First, the court must construe the asserted claims to ascertain their meaning and scope. See *id.* Construction of the claims is a question of law subject to de novo review. See *Cybor Corp. v. FAS Techs.*, 138 F.3d 1448, 1454 (Fed. Cir. 1998). The trier of fact must then compare the properly construed claims with the accused infringing product. See *Markman*, 52 F.3d at 976. This second step is a question of fact. See *Bai v. L & L Wings, Inc.*, 160 F.3d 1350, 1353 (Fed. Cir. 1998).

“Direct infringement requires a party to perform each and every step or element of a claimed method or product.” *BMC Res., Inc. v. Paymentech, L.P.*, 498 F.3d 1373, 1378 (Fed. Cir. 2007). “If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.” *Bayer AG v. Elan Pharm. Research Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000). If an accused product does not infringe an independent claim, it also does not infringe any claim depending thereon. See *Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1553 (Fed. Cir. 1989). However, “[o]ne may infringe an independent claim and not infringe a claim dependent on that claim.” *Monsanto Co. v. Syngenta Seeds, Inc.*, 503 F.3d 1352, 1359 (Fed. Cir. 2007) (quoting *Wahpeton Canvas*, 870 F.2d at 1552) (internal quotations omitted). A product that does not literally infringe a patent claim may still infringe under the doctrine of equivalents if the differences between an individual limitation of the claimed invention

and an element of the accused product are insubstantial. See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 24 (1997).

To establish indirect infringement, a patent owner has available two theories: active inducement of infringement and contributory infringement. See 35 U.S.C. § 271(b) & (c). To establish active inducement of infringement, a patent owner must show that an accused infringer “knew or should have known [its] actions would induce actual infringements.” *DSU Med. Corp. v. JMS Co., Ltd.*, 471 F.3d 1293, 1306 (Fed. Cir. 2006). To establish contributory infringement, a patent owner must show that an accused infringer sells “a component of a patented machine . . . knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use.” *Golden Blount, Inc. v. Robert H. Peterson Co.*, 365 F.3d 1054, 1061 (Fed. Cir. 2004) (quoting 35 U.S.C. § 271(c)). Liability under either theory, however, depends on the patent owner having first shown direct infringement. *Joy Technologies, Inc. v. Flakt, Inc.*, 6 F.3d 770, 774 (Fed. Cir. 1993).

When an accused infringer moves for summary judgment of non-infringement, such relief may be granted only if one or more limitations of the claim in question does not read on an element of the accused product, either literally or under the doctrine of equivalents. See *Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1376 (Fed. Cir. 2005); see also *TechSearch, L.L.C. v. Intel Corp.*, 286 F.3d 1360, 1369 (Fed. Cir. 2002) (“Summary judgment of non-infringement is . . . appropriate where the patent owner's proof is deficient in meeting an essential part of the legal standard for infringement, because

such failure will render all other facts immaterial.”). Thus, summary judgment of non-infringement can only be granted if, after viewing the facts in the light most favorable to the non-movant, there is no genuine issue as to whether the accused product is covered by the claims (as construed by the Court). See *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1304 (Fed. Cir. 1999).

C. Invalidity

1. Anticipation

Under 35 U.S.C. § 102(e),

a person shall be entitled to a patent unless an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent . . . or a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent.

A claim is anticipated only if each and every limitation as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Verdegaal Bros., Inc. v. Union Oil Co., 814 F.2d 628, 631 (Fed. Cir. 1987). A single prior art reference may expressly anticipate a claim where the reference explicitly discloses each and every claim limitation. However, the prior art need not be ipsissimis verbis (i.e., use identical words as those recited in the claims) to be expressly anticipating. *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716 (Fed. Cir. 1984). A single prior art reference also may anticipate a claim where one of ordinary skill in the art would have understood each and every claim limitation to have been disclosed inherently in the reference. *Continental Can Co. USA Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). The Federal Circuit has explained that an

inherent limitation is one that is necessarily present and not one that may be established by probabilities or possibilities. *Id.* That is, "the mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id.* The Federal Circuit also has observed that "inherency operates to anticipate entire inventions as well as single limitations within an invention." *Schering Corp. v. Geneva Pharm. Inc.*, 339 F.3d 1373, 1380 (Fed. Cir. 2003). Moreover, recognition of an inherent limitation by a person of ordinary skill in the art before the critical date is not required to establish inherent anticipation. *Id.* at 1377.

Even if the prior art discloses each and every limitation set forth in a claim, such disclosure will not suffice under 25 U.S.C. § 102 if it is not enabling. *In re Borst*, 345 F.2d 851, 855 (1965). "Long ago our predecessor court recognized that a non-enabled disclosure cannot be anticipatory (because it is not truly prior art) if that disclosure fails to 'enable one of skill in the art to reduce the disclosed invention to practice.'" *Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1354 (Fed. Cir. 2003) (citations omitted). The patentee bears the burden to show that the prior art reference is not enabled and, therefore, disqualified as relevant prior art for an anticipation inquiry. *Id.* at 1355.

An anticipation inquiry involves two steps. First, the court must construe the claims of the patent in suit as a matter of law. *Key Pharm. v. Hercon Lab. Corp.*, 161 F.3d 709, 714 (Fed. Cir. 1998). Second, the finder of fact must compare the construed claims against the prior art to determine whether the prior art discloses the claimed invention. *Id.* The burden of proof rests on the party asserting invalidity and can be met

only by clear and convincing evidence. *Microsoft Corp. v. i4i Ltd. P'ship*, – U.S. –, 131 S. Ct. 2238, 2242, 180 L. Ed. 2d 131 (2011) (“We consider whether [35 U.S.C.] § 282 requires an invalidity defense to be proved by clear and convincing evidence. We hold that it does.”).

2. Obviousness

“A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art.” 35 U.S.C. § 103(a). Obviousness is a question of law, which depends on underlying factual inquiries.

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966)).

“[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. Likewise, a defendant asserting obviousness in view of a combination of references has the burden to show that a person of ordinary skill in the relevant field had a reason to combine the elements in the manner claimed. *Id.* at 418-

19. The Supreme Court has emphasized the need for courts to value “common sense” over “rigid preventative rules” in determining whether a motivation to combine existed. *Id.* at 419-20. “[A]ny need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* at 420. In addition to showing that a person of ordinary skill in the art would have had reason to attempt to make the composition or device, or carry out the claimed process, a defendant must also demonstrate that “such a person would have had a reasonable expectation of success in doing so.” *PharmaStem Therapeutics, Inc. v. ViaCell, Inc.*, 491 F.3d 1342, 1360 (Fed. Cir. 2007).

A combination of prior art elements may have been “obvious to try” where there existed “a design need or market pressure to solve a problem and there [were] a finite number of identified, predictable solutions” to it, and the pursuit of the “known options within [a person of ordinary skill in the art’s] technical grasp” leads to the anticipated success. *Id.* at 421. In this circumstance, “the fact that a combination was obvious to try might show that it was obvious under § 103.” *Id.*

A court is required to consider secondary considerations, or objective indicia of nonobviousness, before reaching an obviousness determination, as a “check against hindsight bias.” See *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1079 (Fed. Cir. 2012). “Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” *John Deere Co.*, 383 U.S. at 17-18.

“Because patents are presumed to be valid, see 35 U.S.C. § 282, an alleged infringer seeking to invalidate a patent on obviousness grounds must establish its obviousness by facts supported by clear and convincing evidence.” *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006) (citation omitted). In conjunction with this burden, the Federal Circuit has explained that,

[w]hen no prior art other than that which was considered by the PTO examiner is relied on by the attacker, he has the added burden of overcoming the deference that is due to a qualified government agency presumed to have properly done its job, which includes one or more examiners who are assumed to have some expertise in interpreting the references and to be familiar from their work with the level of skill in the art and whose duty it is to issue only valid patents.

PowerOasis, Inc. v. T-Mobile USA, Inc., 522 F.3d 1299, 1304 (Fed. Cir. 2008) (quoting *Am. Hoist & Derrick Co. v. Sowa & Sons*, 725 F.2d 1350, 1359 (Fed. Cir. 1984)).

IV. DISCUSSION

For each of the ten patents-in-suit, the court will discuss the background technology, any necessary claim construction on summary judgment, and any infringement and invalidity issues on summary judgment.

A. The '068 Patent

1. Technology

The '068 patent, titled “Communication Terminal Device and Method for Controlling a Connecting State of a Call into a Desired Connection State upon a Predetermined Operation by a User,” was issued on May 30, 2000. It claims a foreign application priority date of March 19, 1996. A reexamination certificate was issued March 6, 2012, cancelling claims 17-22 and 27-32, amending several claims, and

adding claims 33-57. The patent teaches a communication terminal device in which “the connecting state of a call can certainly and easily be controlled without learning troublesome operating methods” (’068 patent, abstract)

Conventionally, a variety of functions are available to a telephone user if, during a call in progress, the user receives an incoming call from a third party. “For instance, [the user may suspend] the call in progress . . . and [connect with] a newly received call . . . , or disconnect[] the call presently talking and connect with the newly received call, or includ[e] the call received among the present call and talk with two parties at the same time, . . . or disconnect[] the call received and . . . continue talking with the present call.” (*Id.*, col. 1:22-28) The user executes one of these call controls by performing a predetermined operation. (*Id.*, col. 1:29-30) For example, the Global System for Mobile Communications (“GSM”) has a set of standards under which pressing the “2” key then the “send” key suspends the call in progress and connects with the call received; pressing the “1” key then the “send” key disconnects the call in progress and connects with the call received; pressing the “3” key then the “send” key switches the call into a three-way call; and pressing the “0” key then the “send” key disconnects the call received and continues the call in progress. (*Id.*, col. 1:31-38) According to the ’068 patent, “these operating methods of call controls are very difficult to learn for the user, and often cause erroneous operations.” (*Id.*, col. 1:49-51)

The ’068 patent relates to an invention that allows the user to easily control the connecting state of a call. (*Id.*, col. 1:62-66) The invention provides a “control means” for displaying the “processing items” available and controlling the call into the

connecting state that the user selects. (*Id.*, col. 2:3-7) Claims 1, 7, 8, 23, and 24 are at issue. Reexamined claim 1 teaches:

1. A communication terminal device for controlling a connecting state of a call into a desired connecting state upon a predetermined operation by a user, comprising:

display means for displaying processing items available to the user relative to a call;

input means for selecting and determining a desired processing item out of said processing items displayed on said display means; and

control means for controlling displaying of the processing items available to the user relative to a present call and to an incoming call on said display means and controlling the present call and the incoming call into a respective connecting state corresponding to the processing item selected and determined by the operation of said input means by a user, wherein said control means controls said display means to display said processing items on said display means when only a single predetermined operation key of said input means is pushed by the user.

Claim 7 limits claim 1 to a control means that controls the display means “to display a list of said processing items available to the user” (*Id.*, col. 17:33-35)

Claim 8 was amended to be independent during reexamination and incorporates the limitations of claims 1 and 7, except that it does not require that “only a single” predetermined key is pushed by the user: the “control means controls said display means to display said processing items on said display means when a predetermined operation key of said input means is pushed by the user.” Claims 23 and 24 were also rewritten during reexamination to be independent. Claim 23 teaches a method claim similar to claim 1 but in “step” form. (*Id.*, col. 18:30-45) Claim 24 incorporates the limitations of claim 23, adding “wherein when a processing for one call is determined by

said step of selecting and a processing for another call is naturally determined, said step of controlling said processing items includes listing only processing items available to said one call on said display.”

2. Claim Construction

a. “[P]rocessing items available to the user”¹

MobileMedia asserts that “processing items available to the user” should be construed simply as “call handling actions available to the user.” (D.I. 239-1 at 10) Apple avers that the term should be restricted to “all actions available to the user for controlling the connecting state of a present call and of an incoming call.” (*Id.*) Apple’s construction of the term inappropriately adds language of reexamined claims 1, 6, 8, 13, and 15, which provides processing items that are available “relative to a present call and to an incoming call.” However, the term “processing items available to the user” is used in a different context in reexamined claims 23 and 24, which refer to processing items available “relative to the call on a display.” The processing items must simply allow the user to control the connecting state of a call. (’068 patent, col. 2:10-12) Therefore, it is under certain limiting claim language, not the term by itself, that the processing items must be available relative to a present call and an incoming call.

In addition, Apple’s proposed construction requiring that “**all** actions available to user” be displayed introduces an unnecessary limitation to the term. While the specification mentions one embodiment where “all of processings available to the call

¹ Because the court does not adopt either party’s proposed construction for “processing items available to the user,” Apple’s motion to strike MobileMedia’s newly proposed claim construction for this term (D.I. 265) is moot.

are listed and itemized” (*id.*, col. 5:57-59), the term is not so limited in the context of the claim language. Accordingly, the court construes “processing items available to the user” to mean “actions available to the user for controlling a call into a desired connecting state.”

b. “[I]ncoming call”²

MobileMedia urges that the court construe “incoming call” to mean “a ringing or newly received call,” while Apple proposes a narrower construction, “a call is requesting a connection with the communication terminal but has not yet been connected with the communication terminal.” (D.I. 239-1 at 12) The court adopts Apple’s claim construction for “incoming call,” that is “a call that is requesting a connection with the communication terminal but has not yet been connected with the communication terminal.” The specification of the ‘068 patent describes an embodiment where the call control screen may be called up “even after the call has been controlled once.” (‘068 patent, col. 12:49-52) In this embodiment, the connection times of one connected call and another held call are both displayed on the device, and the user may choose an operation such that “the processing is determined and the call talking is held and the call waiting is connected.” (*id.*, col. 12:53-13:51) However, the specification describes these calls as “received” or “connected” calls, not “incoming” calls. Accordingly, an incoming call is distinct from a newly received or connected call.

² Because the court does not adopt MobileMedia’s proposed claim construction for the term “incoming call” as used in the ‘068 patent, Apple’s motion to strike MobileMedia’s newly proposed claim construction for this term (D.I. 265) is moot.

c. “[D]isplay means for displaying processing items available to the user relative to a call”

The § 112 ¶ 6 function of “display means for displaying processing items available to the user relative to a call” is “displaying processing items available to the user relative to a call.” The corresponding structure is the “liquid crystal display” (“LCD”), or equivalents thereof. (*Id.*, col. 3:9-13, figs. 1, 2)

d. “[A] list of said processing items” / “listing said processing items”

The court construes “a list of said processing items/listing said processing items” to mean that “the processing items are grouped together in an orderly fashion.” The patent’s reference to “matrix” in the specification is not technically correct, so it is a distinction without a difference. (*Id.*, col. 8:67, 13:4, fig. 10B) There are really only three processing items, not six, shown in figure 10B. Each row is one processing item available to the user, even though the action in relation to each of two calls is displayed in two columns. (*Id.*) Thus, the use of the word “matrix” in the specification should not dictate claim construction.

3. Direct infringement

MobileMedia has accused Apple’s iPhones of infringing claims 1, 7, 8, 23, and 24 of the ‘068 patent. Specifically, the product feature at issue is the scenario and display when a user taps the “Hold Call + Answer” icon to control the connecting state of multiple calls, a scenario that the parties call the MultipleCallConnected User Interface (“MultipleCallConnected UI”). (D.I. 364 at 21) Because the court finds that limitation 1c of the patent is not practiced by this product feature and claims 7 and 8 incorporate the

same limitation, the iPhones do not infringe claims 1, 7, and 8 of the '068 patent.

According to testimony by both parties' experts, the iPhones display several icons, including a "Swap" icon, "Merge Calls" icon, and "End" icon, when a user taps the "Hold Call + Answer" icon. (D.I. 331 at A1191-93; D.I. 335 at ex. A; D.I. 365 at M677-78) MobileMedia's theory of infringement accuses only the scenario when the "Swap," "Merge Calls," and "End" icons are displayed in response to the user tapping the "Hold Call + Answers" icon – in other words, when the display changes with action from the user. (D.I. 332 at 32-33) The dispute over the infringement of claims 1, 7, and 8 is two-fold: whether the "Hold Call + Answer" icon is a single "predetermined operation key" according to limitation 1d and whether the "Swap," "Merge Calls," and "End" icons are "processing items available to the user relative to a present call and to an incoming call" according to limitation 1c. Each party points to its claim construction for its position.

The court finds that limitation 1c, which requires, in relevant part, that "processing items [be] available to the user relative to a present call and to an incoming call," is dispositive. The "Swap," "Merge Calls," and "End" icons are "processing items available to the user" under the court's construction of that term. However, the language of limitation 1c restricts the processing items to ones that are available to the user "relative to a present call and to an incoming call." An "incoming call," as construed, is a call that is requesting a connection but has not yet been connected. Therefore, for purposes of limitation 1c, the processing items must be available to a first connected call and a second call that is requesting a connection but has not yet been connected.

The undisputed facts show that the "Swap," "Merge Calls," and "End" icons are

available relative to two already-connected calls – one active and one on hold – rather than one connected call and one “incoming call.” Because the second call being held in the MultipleCallConnected UI scenario is not an “incoming call” pursuant to the construction of that term, the iPhones do not practice limitation 1c. Dependent claim 7 and reexamined claim 8 both include the same limitation of processing items available to the user relative to a present call and to an incoming call, so they are similarly not infringed. Therefore, Apple’s iPhones do not infringe claims 1, 7, and 8 of the ‘068 patent.

Claims 23 and 24, however, do not include the limitation that the processing items be available “relative to a present call and to an incoming call.” They only require that the processing items are available to the user “relative to the call on a display.” The “Swap,” “Merge Calls,” and “End” icons are processing items available to two already-connected calls that are shown on the display. (See D.I. 330 at 30) As such, those icons read onto the limitation “displaying processing items available to the user relative to the call on a display,” and the court must address the parties’ other contentions regarding infringement of claims 23 and 24.

The parties do not dispute that the “Hold Call + Answer” icon displayed on the iPhones is a “predetermined selection operation.” The only issue for purposes of infringement is whether that icon constitutes a “**single**” predetermined selection operation; Apple avers that it does not. Apple’s argument is relevant to claim 23 but not claim 24 because claim 24 does not include language requiring a “only a single”

predetermined selection operation.³ MobileMedia's expert, Dr. Meldal, asserts that the grid area above the "Hold Call + Answer" icon meets the limitation for a single predetermined selection operation.⁴ (D.I. 335 at ex. A, ¶ 181; D.I. 365 at M680) Whether the "Hold Call + Answer" icon constitutes "only a single" predetermined selection operation, therefore, is a question of fact that cannot be resolved on summary judgment.

Finally, with respect to claims 23 and 24, Apple argues that the iPhones do not display the accused processing items in a "list," as required by both claims. (D.I. 412 at 18-19) The court has construed "a list of said processing items/listing said processing items" to mean "the processing items are grouped together in an orderly fashion." Apple has argued that the accused processing items are displayed in a 3-by-2 matrix, "with no singular or linear relationship." (D.I. 412 at 18) However, the undisputed facts show that the icons are arranged in an orderly fashion and meet the "list" limitation, as construed.

In light of the foregoing, the court denies summary judgment of non-infringement of claims 23 and 24. Summary judgment of non-infringement of claims 1, 7, and 8 is

³ Claim 24 provides for "a predetermined selection operation." Apple contends that MobileMedia "argued in reexamination that 'a predetermined operation key' means only a single predetermined operation key." (D.I. 412 at 17 n.20) (citing JA 6298-99) However, Apple cites to the reexamination history regarding claim 1, not claim 24, of the '068 patent.

⁴ Apple contends that Dr. Meldal offers conflicting testimony as to whether the "Hold Call + Answer" is a single predetermined selection operation because he avers that, in relation to the '394 patent, the same "Hold Call + Answer" icon constitutes at least three keys. (D.I. 331 at A1042) This issue is more suitable for a motion in limine or for a jury to decide Dr. Meldal's credibility.

granted.

4. Invalidity

MobileMedia claims, and Apple does not dispute, a March 19, 1996 priority date for the '068 patent, based on foreign filing. (D.I. 323 at 15; D.I. 324 at A6) Apple asserts that all of the asserted claims of the '068 patent are invalid for anticipation and obviousness in light of a video that the parties call the Orbitor Video, publicly available by December 1992.⁵ (D.I. 323 at 15-16; D.I. 324 at A316-18) The parties agree that the Orbitor Video discloses a communication terminal device that displays processing items like "Hold," "Actions," and "Hang Up" and controls the call into the corresponding connecting state. (D.I. 324 at A716) Rather, they dispute whether the Orbitor Video

⁵ In its response brief, MobileMedia urges the court to strike a late declaration from Apple that provides additional authenticating facts for the Orbitor Video. (D.I. 332 at 27) However, Apple has relied on a 1993 *Telesis* magazine article authored by Jeff Fairless ("the Orbitor article") that describes the Orbitor Video's origins, contents, and public display, even prior to the submission of the late declaration. (D.I. 324 at A321-33) One of Apple's experts, Dr. Balakrishnan, also previously corroborated the Orbitor article and testified regarding his familiarity with the Orbitor Video. (*Id.* at A698; D.I. 376 at A1351) As Apple has offered substantial, timely authenticating evidence and MobileMedia has not offered any evidence to the contrary, the court denies MobileMedia's motion to strike the declaration as moot. The court reasonably relies on the Orbitor Video in the invalidity analysis.

MobileMedia's expert, Dr. Meldal, also disputes whether the Orbitor Video is in the same field of endeavor as the claimed invention because it is directed toward a hypothetical concept device. (D.I. 324 at A326; D.I. 335 at ex. B, ¶ 872) The court finds that the disclosure regards a mobile telephone device with call-waiting and context-sensitive functionality and, thus, is in the same field of endeavor as the claimed invention. MobileMedia does not dispute that the disclosure regards such a mobile telephone device but relies on the notion that, because it is a concept device, it falls in a separate field of endeavor. MobileMedia cites no relevant case law for the proposition, and the court does not find its argument persuasive.

discloses an LCD display as the “display means” and whether the Orbitor Video discloses claim limitation 1d, “wherein said control means controls said display means to display said processing items on said display means when only a single predetermined operation key of said input means is pushed by the user.”

Because limitation 1d is dispositive, the court does not determine whether the Orbitor Video discloses an LCD display or whether a person of ordinary skill in the art would understand the display to be an LCD. According to both parties’ proposed constructions of “to display said processing items on said display means when a predetermined operation key is pushed by the user,” claim limitation 1d requires an action from the user for the device to display processing items. (D.I. 239-1 at 11) The parties also agree that the Orbitor Video discloses the feature that “when the Orbitor device is on a call and receives an incoming second [call], it displays processing items such as ‘Answer,’ **with no action required from the user.**” (D.I. 332 at 32; D.I. 375 at 16-17) (emphasis added) The Orbitor Video, therefore, cannot anticipate claim limitation 1d.

Apple claims, in the alternative, that the Orbitor Video renders the limitation obvious. Without providing support, Apple avers that a person of ordinary skill in the art “would have found it obvious to add the minimal feature of pushing a predetermined operation key to trigger the display of processing items.” (D.I. 323 at 20) Such a conclusory assertion is insufficient to raise a question of fact and is not helpful to the court’s invalidity analysis. Apple devotes the remainder of its discussion of

obviousness to arguing that MobileMedia's position on validity conflicts with its position on infringement and that, if the court were to accept MobileMedia's infringement theory, "the Orbitor Video discloses the same functionality and anticipates" the limitation. (See D.I. 323 at 19; D.I. 375 at 16-17) The court, however, does not find that MobileMedia's infringement position conflicts with its position on validity. MobileMedia has made it clear that it is not accusing Apple's iPhones of infringing under a scenario where there is no action required from the user but, rather, when certain icons are displayed on the iPhones in response to user action. (D.I. 332 at 32-33) There being no genuine issue of fact, the court finds that the Orbitor Video neither anticipates nor renders obvious claim limitation 1d of the '068 patent.

Because dependent claim 7 is dependent from claim 1 and claims 8, 23, and 24 incorporate limitation 1d, the court finds that none of the asserted claims of the '068 patent are invalid. The court grants MobileMedia's motion for no invalidity.

B. The '075 Patent

1. Technology

The '075 patent, titled "Method and Apparatus for Incoming Call Rejection," was issued on June 26, 2001 and claims priority to a provisional application filed May 19, 1998. An *ex parte* reexamination certificate was issued on March 20, 2012. The reexamination resulted in cancellation of claims 1-4, amendment of claims 10, 13, and 14, and confirmation of claims 5-9, 11-12, and 14.

The '075 patent relates to call processing techniques for rejecting incoming calls in cellular telecommunications systems. ('075 patent, col. 1:15-16) Conventionally, "wireless telecommunications systems are made up of a series of base stations connected to landline telecommunications networks" (*Id.*, col. 1:31-33) These base stations communicate by base station controllers and can establish radio frequency ("RF") communications channels with remote mobile phones. (*Id.*, col. 1:34-37) When a person attempts to call a mobile phone user who is in the geographic coverage area of the wireless system, "the base station acts as an intermediary by [sending a call alert to] the mobile via at least one RF channel." (*Id.*, col. 2:1-3) Thereafter, the base station waits for a fixed time period, or a ringing cycle, to receive a response from the mobile device. (*Id.*, col. 2:3-6) If the mobile phone user answers the call, the mobile phone (or "mobile") sends a response to the base station, which sets up a connection over an existing or new RF channel. (*Id.*, col. 2:13-18) If the user does not answer the call, "the base station releases the call by terminating the call alert to the mobile and signaling to the caller that the mobile is unavailable." (*Id.*, col. 2:7-10) According to the '075 patent, the wireless telecommunications system did not provide users the option to reject calls immediately on demand, so a user must either have powered off the mobile phone or allowed the phone to ring through the entire ringing cycle. (*Id.*, col. 2:36-53)

To address this need, the '075 patent teaches a method and apparatus that allow a user of a mobile communications device to automatically or manually reject calls. (*Id.*,

col. 3:32-47) During reexamination, independent claim 1 and claims 2 through 4, which were dependent from claim 1, were rejected, so the reexamined patent only relates to the rejection of incoming calls while the device is “in communication with a first calling station,” or already connected to a first call. (See *id.*, claims 10, 15) In one embodiment, the apparatus comprises an input actuator, a rejection memory, and a message processor. (*Id.* at col. 3:57-59) The user can preprogram caller identification information into the rejection memory, and incoming calls are thereafter automatically compared to that memory to determine which calls should be rejected. (*Id.*, col. 3:59-61) The preprogrammed list of callers in rejection memory may contain “wild card” characters or partial entries to reject entire groups of callers. (*Id.*, col. 5:21-27) Alternatively, the user may manually trigger transmission of the rejection message from the device. (*Id.*, col. 6:30-49) Once either an automatic or manual determination is made to reject an incoming call, the message processor “immediately transmit[s]” a rejection message to the base station to release the call. (*Id.*, col. 4:1-5)

Claims 5, 6, and 10 are at issue. Claim 5 and reexamined claim 10 teach a method and apparatus, respectively, for automatically rejecting an incoming call to a mobile phone while the phone is connected to a first calling station. The claims are reproduced below:

5. A method of rejecting an incoming call to a mobile phone, said mobile phone having a transceiver circuit for transmitting and receiving transmissions to and from a remote transceiver, said mobile phone in communication with a first calling station via the remote transceiver on a communication channel in a wireless system, said method comprising the steps of:

receiving at the mobile phone, a transmission from the remote transceiver signifying that there is an incoming call;

determining at the mobile phone if said incoming call is to be rejected; and

transmitting from the mobile phone a rejection message to the remote transceiver in response to a determination being made, during said step of determining, that said incoming call is to be rejected, said rejection message comprising at least one information element indicating to the wireless system that the wireless system is to immediately release the incoming call on the communication channel between the mobile phone and remote transceiver.

10. In a mobile communications device, apparatus in communication with a first calling station for selectably rejecting an incoming call, said apparatus comprising:

a transceiver operable to send and receive transmissions to and from a remote transceiver in a wireless system on a communication channel, said transceiver for receiving a transmission signifying that an incoming call is being attempted; and

a control processor coupled to said transceiver, said control processor for determining if said incoming call is to be rejected and, in response to a positive determination, said control processor for outputting a rejection message to said transceiver for transmission to said remote transceiver, wherein said rejection message comprises at least one information element indicating to the wireless system that the wireless system is to immediately release the incoming call on the communication channel between the mobile communications device and remote transceiver.

Dependent claim 6 teaches the method of claim 5, “wherein the mobile phone includes an actuator operable by a user for inputting a manual input to the mobile phone.”

2. Claim Construction⁶

⁶ Because the court does not adopt MobileMedia’s proposed claim constructions for the terms “rejection message,” “the wireless system is to immediately release . . .,”

a. “[R]ejection message”

The court construes “rejection message” as “a single communication sufficient to cause the base station to ‘immediately release the incoming call.’” Even if there are multiple communications leading up to the “release,” there ultimately is only one message from the user that communicates the decision to “reject.” (’075 patent, col. 6:6-9) The term “rejection message” is always singular in the patent. Given the above, the general rule that “a” or “an” can indicate plural, see *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1342 (Fed. Cir. 2008), does not apply in this context.

b. “[T]he wireless system is to immediately release the incoming call on the communication channel between the mobile phone and the remote transceiver”

The court construes “the wireless system is to immediately release the incoming call on the communication channel between the mobile phone and the remote transceiver” as follows: “the wireless system must, without requiring any additional action by or communication from the mobile phone, ‘release the incoming call on the communication channel between the mobile phone and remote transceiver.’” The specification describes this step of the method not in temporal terms but in terms of what the base station does upon receipt of the rejection message. (’075 patent, col. 6:10-19) That is, the base station sends a release message to the mobile phone over the communication channel. (*Id.*) Therefore, the “immediately release” language only

and “actuator,” Apple’s motion to strike MobileMedia’s newly proposed claim constructions for these terms (D.I. 265) is moot.

indicates that the wireless system does not require any additional action by or communication from the mobile phone.

c. “Actuator”

The parties dispute whether “actuator” must be a mechanical device or whether it can simply be “a thing that actuates.” (D.I. 239-1 at 1) Apple takes the former position and MobileMedia the latter. (*Id.*) The court does not adopt either party’s proposed construction and construes “actuator” instead as “functional element that controls the flow of energy.”

The drawings and specification do not limit “actuator” to a mechanical input. For instance, in figure 4 of the ‘075 patent, the manual input is simply labeled as “user interaction 422.” The only reference to this user interaction provides: “If the user decides to manually reject the call, a manual rejection input can be **activated** as shown in block 422. This manual rejection input is detected as shown at 615.” (‘075 patent, col. 10:59-11:9) (emphasis added) Elsewhere in the specification, it provides that the user indicates a call rejection “by, for example, pressing a button on keypad 112 or some other available input actuator.” (*Id.*, col. 6:30-42) Given that claim 6 is a method (not an apparatus) claim, there is no support for the suggestion that an actuator must be a mechanical device.

3. Direct infringement

MobileMedia has accused Apple’s iPhones of infringing the ‘075 patent. The relevant basic functionality of these products is not in dispute. (D.I. 330 at 7; D.I. 364 at 6) According to both parties, to decline an incoming second call while on a first call, a

user can tap “decline” or “ignore” on the touchscreen of one of the accused products. (D.I. 330 at 7) The phone and cellular network then exchange a series of messages before the incoming call is released: (1) a “disconnect” request is sent from the phone to the network base; (2) a “release message” is sent from the network base to the phone; and (3) an incoming call is released by the network after the base receives a “release complete” message from the phone. (*Id.*)

Apple asserts that the accused iPhones do not infringe any of the asserted claims of the '075 patent. Apple contends that (1) the “disconnect” message does not constitute a “rejection message” because it directs the wireless system to initiate procedures to release an incoming call, rather than cause a base station to “immediately release” that incoming call; (2) its users, not Apple itself, practice the step of “determining” if an incoming call is to be rejected; and (3) for claim 6, the touch screen icons on the iPhones are not “actuators.” (D.I. 330 at 8-17)

Given the undisputed facts and claim construction, the court finds that the iPhones practice the limitation of claims 5, 6, and 10 for “determining [at the mobile phone] if said incoming call is to be rejected,” as well as the “actuator” limitation of claim 6. The parties have agreed that the “determining” limitation should be construed as “determining or deciding [at the mobile phone] if the incoming call is to be rejected, wherein there is a choice to reject or not reject the incoming call.” (D.I. 239-1 at 1) Neither the construed term nor any language in the '075 patent requires a user to perform the “determining” step, as Apple argues. Claims 5 and 10 teach automatic rejection of a second incoming call; claim 10 even explicitly calls for a control processor

to perform the “determining” step. According to the specification, “[t]he determination occurs when the mobile phone compares the caller ID information . . . to information stored in rejection memory If a match is detected, the mobile phone transmits a rejection message to the base station” (’075 patent, col. 9:18-23) Additionally, the court’s construction of “actuator” renders Apple’s arguments requiring a mechanical or push-button component moot. As such, the iPhones’ touch screen practices the “actuator” limitation of claim 6.

The court thus focuses on Apple’s assertion that each accused rejection message of the iPhone is not a “rejection message,” as that term is used in the patent, because it directs the wireless system to initiate procedures to release an incoming call rather than cause a base station to “immediately release” that incoming call. (D.I. 330 at 8-17) MobileMedia argues that the “disconnect” message, the “release complete” message, and the entire exchange of messages each constitute rejection messages. (D.I. 364 at 7) In addition, MobileMedia avers that there is one more way, besides the exchange of messages, for the accused iPhones to release a call: a “disconnect” message allegedly causes a timer to start and, if the timer expires before the base station receives any additional communication from the phone, then the call control entity of the network releases the connection. (*Id.* at 9-10) MobileMedia argues that the release can occur through the timer without requiring any additional action by, or communication from, the mobile phone. (*Id.* at 10) Apple, in its reply brief, disputes MobileMedia’s timer theory as unsupported and contends that, even if it were the case, it would not practice the limitation of “immediately” releasing the incoming call. (D.I. 412

at 8)

According to the construction of “rejection message,” the “disconnect message” constitutes a rejection message. Therefore, the “rejection message” limitation is practiced. It is less clear whether the incoming call is “immediately released.” The undisputed facts show that one way an incoming call to the accused iPhones can be released is for an exchange of messages to take place after the “disconnect” message is sent. This does not meet the “immediately release” limitation, as construed, because it requires additional communication from the iPhones. MobileMedia’s timer theory, however, may meet the “immediately release” limitation, depending on how it works with the “disconnect message.” Apple disputes how the release functions and how it would fit the claim limitations. (D.I. 412 at 8) The iPhones’ ability to release calls after the expiry of a timer, therefore, raises a question of fact regarding whether the iPhones practice the “immediately release” limitation. In light of the foregoing, the court denies Apple’s motion for summary judgment of non-infringement of claims 5, 6, and 10 of the ‘075 patent.

4. Invalidity

MobileMedia claims, and Apple does not dispute, a priority date of May 7, 1998 for the ‘075 patent based on a related provisional application. (D.I. 323 at 25) Apple asserts as prior art two GSM documents – GSM 04.08 and GSM 04.83 (collectively, “the GSM documents”) – and the ‘068 patent, which is also a patent-in-suit.⁷ (*Id.*) GSM

⁷ The named inventor for the ‘068 patent is Fukuharu Sudo. The parties refer to the ‘068 patent as “Sudo” when discussing it as allegedly invalidating prior art to the ‘075 patent. For consistency, the court will refer to it as the ‘068 patent in all contexts.

04.08 pertains to “[m]obile radio interface layer 3 specification,” and GSM 04.83 pertains to call waiting and call hold services. (D.I. 324 at A289, A312) Both were published in February 1995.⁸ (*Id.*) The ‘068 patent was issued May 30, 2000 from an application filed March 17, 1997 and claims priority to a March 19, 1996 foreign application. (JA 109-29)

During reexamination of the ‘075 patent, the examiner rejected the asserted claims in light of a draft version of GSM 04.08 because the draft version of GSM 04.08 “describes a method for selectively rejecting an incoming call to a mobile phone.” (JA4797) To overcome rejection, MobileMedia explained that, while the draft version of

⁸ MobileMedia argues that Apple has not provided any corroborating evidence to support that the GSM documents are what they say they are or were available to the public in February 1995. (D.I. 332 at 35) However, there is no reasonable dispute regarding the GSM documents’ authenticity. The Federal Circuit has noted that GSM is “a comprehensive set of specifications” devised by the European Telecommunications Standards Institute, an independent standards organization, and serves as a standard. *Kyocera Wireless Corp. v. ITC*, 545 F.3d 1340, 1350 (Fed. Cir. 2008). Moreover, MobileMedia’s expert, Dr. Meldal, identified GSM 04.08 and noted there was no dispute regarding its publication date:

Question: . . . Starting with this document, this is the GSM 04.08 standard. Is that right?

Answer: Well, let’s--we need to be a little bit more precise, since there were a number of revisions of this document over the years. So we should add to its identification the ETS No. 300557 and the date February 1995. **This is not a dispute, of course, simply making a complete identification of the document.**

(D.I. 376 at A1364, 522:15-23) (emphasis added) Apple’s expert, Dr. Akl, also identified the GSM documents. (D.I. 333 at M463) Each document is marked with “European Telecommunication Standard,” an “ETS” number, the phase of release, the date “February 1995,” and a 1995 copyright date. (D.I. 324 at A289, A312) Experts may reasonably rely on the copyright date on documentation and, absent any evidence to the contrary, the court may rely on that as the prior art date. *See Intermec Techs. Corp. v. Palm Inc.*, 811 F. Supp. 2d 973, 999 (D. Del. 2011).

GSM 04.08 discloses a method of rejecting an incoming call, it does not disclose the method for rejecting a **second** incoming call on a mobile phone that is already in communication with a first calling station; it explained and amended its claims accordingly. (JA4806, JA4876-78, JA4882-84, JA4893-94, JA4906)

MobileMedia agrees that the draft version of GSM 04.08 and the GSM 04.08 document asserted as prior art are similar in all material respects. (D.I. 332 at 38) Thus, GSM 04.08 also discloses selectively rejecting a first incoming call to a mobile phone. Meanwhile, GSM 04.83 discloses a scenario when a mobile phone that is in communication with a first calling station receives a second incoming call. (D.I. 324 at A315) MobileMedia characterizes the scenario that GSM 04.83 discloses as a “call waiting” feature.⁹ (D.I. 332 at 38)

Apple details how all of the limitations of the asserted claims are allegedly present in the two GSM documents. (D.I. 323 at 30-34) MobileMedia purports generally that there are genuine disputed facts, including (1) “whether the prior art discloses a choice to reject or not reject an incoming call,” and (2) “whether GSM 04.08 discloses sending [the] rejection message when the mobile phone is in communication with a first calling station.” (D.I. 332 at 38) (internal quotation marks omitted) (alteration in original) It then goes on to state, without proffering any further support, that “even the combination of these [GSM documents] does not disclose the claimed inventions.

⁹ The call waiting scenario inherently arises when a user receives a second incoming call while on a first call. Moreover, section 1.1 of GSM 04.83 clearly describes receiving a second incoming call and sections 1.2 and 1.3 refer to different outcomes with relation to an “existing call” (first call) and “waiting call” (second call). (D.I. 324 at A315-17)

Nowhere in the two references is there a disclosure of a mobile phone transmitting a rejection message to reject an incoming call when that mobile phone is already in communication with a first calling station.” (*Id.* at 39) (internal quotation marks omitted) These assertions do not raise genuine factual disputes. First, the PTO examiner on reexamination found that the method and apparatus taught in claims 1 through 4 for rejecting a first incoming call were anticipated by the draft of GSM 04.08. (D.I. 385 at JA 4797-98) This finding necessarily included the limitation of “determining” whether or not to reject an incoming call, the same limitation as in the asserted claims. In fact, GSM 04.08 discloses a user choice to reject or not reject an incoming call: “if the mobile user wishes to refuse the call, a RELEASE COMPLETE message shall be sent with cause #21 ‘call rejected.’”¹⁰ (D.I. 324 at A301, § 5.2.2.3.1) Second, neither party asserts that “GSM 04.08 discloses rejecting an incoming call when the mobile phone is in communication with a first calling station.” GSM 04.08 **and** GSM 04.83, whether viewed as one anticipatory reference or in combination with ordinary skill in the art, allegedly invalidate the asserted claims. GSM 04.08 discloses sending a rejection message, and GSM 04.83 discloses the “call waiting” scenario when a user in communication with a first calling station receives a second incoming call.

Accordingly, the GSM documents together disclose all of the limitations of the

¹⁰ MobileMedia’s expert, Dr. Meldal, asserts that the CALL CONFIRMED or RELEASE COMPLETE message “does not indicate there is a choice to reject or not reject an incoming call when the mobile phone is already on a first call. (D.I. 324 at A452) However, this assertion misses the point. Apple does not assert that GSM 04.08 discloses a rejection choice **when the mobile phone is already on a first call**; Apple only asserts that GSM 04.08 discloses rejection of an incoming call. The scenario when the mobile phone is already on a first call is disclosed in GSM 04.83, so the scenario that Dr. Meldal refers to requires a combination of the GSM documents.

asserted claims of the '075 patent. The only remaining issues, upon which the parties focus in their briefing, are (1) whether it would be appropriate to view the documents as one anticipatory reference, or (2) alternatively, whether a person of ordinary skill in the art would find it obvious to combine them, alone or with the '068 patent.

a. Anticipation

It would be inappropriate for the court to view GSM 04.08 and GSM 04.83 as one reference; therefore, the '075 patent is not anticipated. Section 1.1 of GSM 04.83 states that, when a mobile station is already on a first call and receives a second incoming call, “the network and the mobile station shall act in accordance with . . . GSM 04.08.” (D.I. 324 at A315) Apple avers that this language constitutes an explicit incorporation by reference of GSM 04.08 into GSM 04.83. (D.I. 323 at 28) When faced with multiple GSM documents, however, the Federal Circuit has held that “the GSM standard is not a single reference.” *Kyocera Wireless Corp*, 545 F.3d at 1351. The Court reasoned that the various GSM documents “were authored by different subsets of authors at different times” and have separate titles and page numbering. *Id.* Consequently, “[e]ach specification, though part of the greater GSM standard, stands as a separate document in its own right.” *Id.* “This court has been clear that in order for one document to incorporate another document by reference, the incorporating document must identify the incorporated document with detailed particularity, clearly indicating the specific material for incorporation.” *Id.* at 1352 (citing *Advanced Display Sys, Inc. v. Kent State Univ.*, 212 F.3d 1271, 1282 (Fed. Cir. 2000)).

Here, although GSM 04.08 and 04.83 have the same February 1995 date, they

have separate page numbering. Moreover, GSM 04.08 is over four hundred pages long, with only a few pages (sections 5.2.2.1 and 5.2.2.3) discussing call rejection, so the reference in GSM 04.83 to GSM 04.08 is insufficient to incorporate the latter. (See D.I. 324 at A300-02) Therefore, GSM 04.08 and GSM 04.83 stand as separate documents and do not anticipate the '075 patent.

b. Obviousness

The parties dispute whether it would be obvious for a person of ordinary skill in the art to combine GSM 04.08 and GSM 04.83, either alone or in combination with the '068 patent, to render the '075 patent invalid. The '068 patent, as described above, relates to a communication terminal device that allows the user to easily control the connecting state of a call by performing a predetermined operation. ('068 patent, abstract, col. 1:29-30, 1:62-66)

Apple's expert, Dr. Akl, has testified that one of ordinary skill in the art would have known to combine the '068 patent with the GSM documents because all of the documents involve mobile phones and address rejection messages for incoming calls. (D.I. 324 at A642) Furthermore, the documents reference each other. (*Id.*) GSM 04.83 references GSM 04.08, as discussed above. The '068 patent references GSM in the "field of invention" section and again in the specification, providing, "[t]he above call controls are executed by performing a predetermined operation determined by a standard in the GSM system. For instance, . . . to disconnect the call received and continue the call in progress '0' key should be pushed and then the send key." ('068 patent, col. 1:8-12, 1:29-39) MobileMedia's expert, Dr. Meldal, disagrees with Dr. Akl

and contends that a person of ordinary skill in the art would not have found it obvious to combine GSM 04.08, GSM 04.83, and the '068 patent. (D.I. 365 at ex. C, ¶¶ 10-11) He avers that the GSM 04.83 reference to GSM 04.08 is too general and that GSM 04.08 actually “teaches away from a combination with prior art or knowledge in the art disclosing a mobile phone already in communication with a first calling station, and/or where there [sic] an incoming call that is rejected.” (*Id.*) As such, the parties’ experts dispute whether a person of ordinary skill in the art would have found the asserted claims of the '075 patent obvious in light of GSM 04.08, GSM 04.83, and the '068 patent. The court denies Apple’s motion for summary judgment of invalidity of the asserted claims of the '075 patent.

C. The '231 Patent

1. Technology

The '231 patent, titled “Communication Terminal Equipment and Call Incoming Control Method,” reissued on August 8, 2006. An *ex parte* reexamination resulted in a reexamination certificate that issued April 3, 2012. The reexamination certificate cancelled claims 1, 11, 13-16, and 18-23, determined claims 2-4, 8, 12, and 17 to be patentable as amended, and added new claims 24-29. The patent claims a foreign application priority date of December 19, 1994.

According to the abstract, the patent teaches communication terminal equipment and a method for stopping the alert sound or reducing the volume of the alert sound for an incoming call on a telephone. ('231, abstract) Conventionally, a “call incoming on a telephone is informed by means of an alert sound,” but the alert sound “does not stop

ringing before a user effects [a] next operation.” (*Id.*, col. 1:17-20) A user who cannot respond to a call incoming has only the option to forcibly disconnect the incoming call, turn off the telephone, or allow the alert sound to continue ringing. (*Id.*, col. 1:20-25) The first two options, forcibly disconnecting the incoming call or turning off the telephone, may give the person on the call origination side an “unpleasant feeling because [he or she] can notice that the circuit was broken off intentionally” or may give the person the impression that the telephone network has failed. (*Id.*, col. 1:26-30, 39-42) Moreover, a user who turns off the power may forget to turn the power back on and miss the next incoming call. (*Id.*, col. 1:37-39) On the other hand, the third option, allowing the alert sound to continue ringing, may disturb the user or other persons in the surroundings. (*Id.*, col. 1:3-33)

In light of these problems, the invention aims “to provide a communication terminal equipment which is superior in selecting and handling properties for users” (*Id.*, 43-46) It teaches a telephone in which an alert sound muting or volume reducing function is allotted to a key. (*Id.*, col. 2:2-5, col. 4:40-42, col. 5:12-17) When the telephone receives an incoming call, the user can use a predetermined operation, such as depressing a key for a short time, to prompt the “alert on/off controller” to stop generation of the alert sound. (*Id.* at col. 3:36-48) Alternatively, the alert sound may be reduced. (*Id.* at col. 4:40-42)

Claims 2, 3, 4, and 12 are at issue. Claim 12 was amended to be an independent claim during reexamination:

12. A communication terminal for informing a user of a received call from a remote caller by an alert sound, comprising:

an alert sound generator for generating the alert sound when the call is received from the remote caller;

control means for controlling said alert sound generator; and

means for specifying a predetermined operation by the user,

wherein when said alert sound generator is generating the alert sound and said means for specifying said predetermined operation is operated by the user, said control means controls said alert sound generator to change a volume of the generated alert sound only for the received call, without affecting the volume of the alert sound for future received calls, while leaving a call ringing state, as perceived by the remote caller, of the call to the terminal from the remote caller unchanged,

further comprising:

RF signal processing means for transmitting and/or receiving radio waves; and

an antenna for transmitting and/or receiving said radio waves, wherein said communication status between said apparatus and said remote caller is established by said transmitted and/or received radio waves.

Reexamined claims 2, 3, and 4 are all dependent from claim 12. Reexamined claim 2 adds the limitation that the “control means controls the state of said alert sound generator to stop the sound.” Reexamined claim 3 adds the limitation that the alert sound generator reduces the volume of the sound. Finally, reexamined claim 4 adds the limitation “where said predetermined operation is an operation depressing a predetermined operation key.”

2. Claim Construction¹¹

¹¹ Because the court does not adopt MobileMedia’s proposed claim constructions for the terms “stop the sound” and “to change a volume of the generated sound alert,” Apple’s motion to strike MobileMedia’s newly proposed claim constructions for these

a. “[S]top the sound”

The parties dispute whether the term “stop the sound” encompasses stopping playback of the sound or whether it only includes muting the sound without stopping playback. MobileMedia proposes the plain and ordinary meaning, “stop the sound,” which would include any means of stopping the sound, while Apple proposes that the term should be limited to mean “to mute the alert sound that is being generated.” (D.I. 329 at 6) The court construes “stop the sound” to mean “stop the sound that is being generated without cutting off the telephone circuit.”

According to the specification, where it is impossible to allow an alert sound to ring for a long time continuously, “the user may depress the power key for a time shorter than one second . . . to turn off the alert on/off controller to only stop the generation of the sound.” (’231 patent, col. 3:39-51) One objective of the invention is to avoid the caller “notic[ing] that the circuit was broken off intentionally” by “provid[ing] a function to eliminate an alert sound without forcibly cutting-off a circuit” (*Id.*, col. 1:26-33, 2:59-62, 3:36-48) The invention allows the user to stop an alert sound “without breaking-off connection of the telephone circuit” (*Id.*, col. 3:66-4:4) In the context of the ’231 patent, “circuit” clearly refers to a telephone circuit connecting calls and not a sound signal circuit.

Nevertheless, the specification contemplates stopping the alert sound by way of stopping playback, not merely muting it. In one embodiment, for instance, the CPU can “control the alert on/off controller to make it stop the **generation** of the alert sound.”

terms (D.I. 265) is moot.

(col. 3:1-6) (emphasis added) Therefore, the court's construction, "stop the sound that is being generated without cutting off the telephone circuit," is consistent with the specification and claim language.

b. "[T]o change a volume of the generated alert sound"

MobileMedia proposes that "to change a volume of the generated alert sound" is to "change the volume of the generated alert sound." (D.I. 239-1 at 6) Apple proposes that the term should mean to "change the **degree of loudness** of the alert sound that is being generated." (*Id.*) (emphasis added)

The specification of the '231 patent refers to cases where "an alert sound is stopped **or** the volume of an alert sound is reduced" ('231 patent, col. 4:66-5:4; 5:12-18) (emphasis added) In addition, dependent claim 2 narrows the scope of reexamined claim 12 only by a limitation requiring a control means that controls the sound generator to stop the sound. The specification and claims indicate that "stop the sound" and "to change a volume of the generated alert sound" are alternatives, not interchangeable terms. Accordingly, the court construes "to change a volume of the generated alert sound" to mean "to alter the degree of loudness of the alert sound that is being generated without cutting off the telephone circuit." This construction of "to change a volume of the generated alert sound" is consistent with the specification and allows claim 2 to remain a separate claim, dependent from reexamined claim 12.

c. "[M]eans for specifying a predetermined operation by the user"

The parties agree that the § 112 ¶ 6 function for "means for specifying a

predetermined operation by the user” is “specifying a predetermined operation by the user.” The corresponding structure is “a CPU and operation keys,” or equivalents thereof. (*Id.*, col. 2:9-35, figs. 1, 2)

3. Direct infringement

MobileMedia accuses Apple’s iPhones of infringing claims 2, 3, 4, and 12 of the ‘231 patent. Because claim 12 was rewritten during reexamination to be an independent claim and reexamined claims 2, 3, and 4 are all dependent from it, the court begins its infringement analysis with claim 12. While the parties dispute claim limitations 12a, 12b, and 12c, the court finds that the analysis of claim limitation 12d is dispositive. Limitation 12d requires that “said control means controls said alert sound generator to change a volume of the generated sound.” According to Apple, the products accused of infringing the ‘231 patent – again, the iPhones – do not reduce, increase, mute, or otherwise change the volume of the audio playback; instead, they stop playback of the ring tone, or sound alert, file. (D.I. 331 at A1069)

MobileMedia does not dispute the relevant functionality of the iPhones. Instead, it attempts to equate stopping playback to changing the volume of the playback sound: “[s]topping the playback of the alert sound is a change in volume from a certain non-zero level of decibels to zero decibels.” (See D.I. 364 at 15) The court is not persuaded by MobileMedia’s argument. As construed, the term “to change a volume of the generated sound alert” requires a change in the “degree of loudness” of the sound. The difference is analogous to muting a compact disc (“CD”) that is still playing and stopping the CD completely; although the auditory result is the same, the control is different. The

claims do not refer to the user's perception of the claimed function but instead claim a component to control a characteristic of the sound. (See D.I. 330 at 21)

Therefore, the accused iPhones do not practice a control means that controls an alert sound generator "to change a volume of the generated sound." As reexamined claims 2, 3, and 4 all depend on reexamined claim 12, the court finds that Apple's iPhones do not infringe any of the asserted claims of the '231 patent. The court grants Apple's motion for summary judgment of non-infringement of the '231 patent.

D. The '078 Patent¹²

¹² MobileMedia moves to strike portions of the supplemental expert report of Dr. Grimes (D.I. 324 at tab 44) related to the '078 patent. (D.I. 414) The supplemental expert report was filed on May 14, 2012 with Apple's motion for summary judgment of invalidity, after the close of expert discovery. It purportedly introduces new invalidity contentions not previously disclosed by Apple in its expert reports by identifying Control Circuit 25, rather than the previously identified Control Circuit 28, as the component disclosed in the asserted prior art Japanese Unexamined Patent Publication No. H6-133081 ("Morita"). (D.I. 324 at A655-659) Morita is not at issue for summary judgment invalidity of the '078 patent but, because the court declines to decide invalidity or no invalidity at this stage, the admissibility of the supplemental expert report remains at issue.

The court evaluates discovery issues in patent cases under Third Circuit law. *See Dow Chem. Co. v. Nova Chems. Corp.*, 2010 WL 2044931, at *1 (D. Del. May 20, 2010). Pursuant to Fed. R. Civ. P. 26(a)(2)(D), parties must disclose expert testimony "at the times and in the sequence that the court orders." On the other hand, if a party "learns that in some material respect the disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing," it must supplement or correct its disclosure. Fed. R. Civ. P. 26(e). When expert testimony is not timely disclosed, the court has the authority to exclude it from evidence. *See United States v. 68.94 Acres of Land*, 918 F.2d 389, 396 (3d Cir. 1990). However, "the exclusion of otherwise admissible testimony because of a party's failure to meet a timing requirement is a harsh measure . . ." *Praxair, Inc. v. ATMI, Inc.*, 231 F.R.D. 457, 463 (D. Del. 2005) (internal quotation marks omitted); *see also Dow Chem. Co. v. Nova Chems. Corp.*, 2010 WL 2044931, at *1-2 (D. Del. May 20, 2010) (calling the exclusion of critical evidence an "extreme sanction"). As Dr. Grimes' opinions in the supplemental expert report were asserted to correct Apple's invalidity position, the court denies

1. Technology

The '078 patent, titled "Device for Personal Communications, Data Collection and Data Processing, and a Circuit Card," relates to a device with a camera unit for data collection. It claims a foreign application priority date of June 12, 1995 and was issued on July 30, 2002.

According to the specification, the invention is a small device, or notebook computer, that is comprised of equipment for personal communication, data processing, and data collection. ('078 patent, 1:42-49, 2:28-30) The patent notes several improvements over known personal communication devices and mobile organizers. (*Id.*, col. 1:32-41) It eliminates the drawbacks of small notebook computers fitted with "paper-feeding arrangements" and "electronic scanners [having] small mechanical parts"; combines personal communications, data collection, and data processing into one device; and makes more efficient communication possible. (*Id.*, col. 1:32-49, 1: 57-61) The invention is of a device, such as a notebook computer or radiotelephone, comprising a data processing unit, a display, one or more peripheral device interfaces, one or more memory units, software, and a camera unit for data collection. (*Id.*, col. 2:25-67, 3:1-55) The device has a radiotelephone, such as a cellular mobile phone unit, so that it can be used as a hand-held telephone. (*Id.*, col. 3:37-53) The camera unit

MobileMedia's motion and declines to strike any portions of it.

Meanwhile, Apple also moves to strike portions of Dr. Meldal's declaration (D.I. 335) filed with MobileMedia's opposition to the motion for invalidity on June 4, 2012. (D.I. 377) Insofar as MobileMedia needed to respond to the opinion in Dr. Grimes' supplemental expert report, the court denies Apple's motion and will not strike any portion of the declaration.

scans in information or a picture through optics, and the image is then transferred to an image processing unit and through a microprocessor to one or more memory units. (*Id.*, col. 4:48-54) When the user wants to view the image, “[t]he desired image information is read for memory unit by means of [the] microprocessor of [a] camera card, and the image information is transmitted . . . to [the] display via [a] display controller. (*Id.*, col. 4:57-62) The “image processing unit processes the image information into a suitable form to be presented to the user” (*Id.*, col. 4:62-64)

Claims 1, 2, 3, 8, and 73 are at issue. Claim 1 is an independent claim:

1. A device for personal communication, data collection and data processing, which is a small-sized, portable and hand-held work station including a housing and comprising a data processing unit, a display, a user interface, a number of peripheral device interfaces, at least one memory unit; a power source, and application software, wherein the device also comprises:

a camera unit for obtaining and outputting image information comprising:

a camera for receiving image information; optics connected to said camera for passing said image information to the camera;

at least one memory unit for storing said image information; and

an output coupled to said data processing unit for outputting image information from said memory unit to the processing unit;

and wherein at least a portion of said camera unit is located within said housing, and

said data processing unit processes image information output by said camera unit, and

wherein said device further comprises means for transmitting image information processed by said processing unit to another location using a

radio frequency channel.

Claim 2 adds the additional requirement that the means for transmitting image information comprises a cellular mobile phone unit, and claim 3 further limits claim 2 such that “the cellular mobile phone unit comprises equipment required by speech communications, such as a microphone and a loudspeaker, wherein said equipment is fitted into the housing of the device.” (*Id.*, col. 9: 1-7) Claim 8 adds to claim 1 the limitation that the camera unit “further comprises means for processing image information from an image received by said camera and means for storing at least a portion of the processed image information in said at least one memory unit of said camera unit for later recall.” (*Id.*, col 9:16-21)

Independent claim 73 teaches a “cellular mobile phone” comprising:

a built in camera unit for obtaining image information;

a user interface for enabling a user to input signals to operate the camera unit;

a microprocessor adapted to control the operations of the camera unit in response to input signals from the user interface, and to process image information received by the camera unit; and

means, coupled to said microprocessor, for transmitting image information processed by said microprocessor to another location using a radio frequency channel;

and wherein the camera unit comprises:

optics for obtaining image information;

an image sensor for obtaining image information; and means for processing and for storing at least a portion of the image information

obtained by the camera unit for later recall and processing.

2. Claim Construction

a. “Camera unit”¹³

Apple proposes that “camera unit” is “a complete image capturing apparatus that includes at least optical components, image sensor circuitry, dedicated image processing and memory circuits, and an interface to external circuitry.” (D.I. 239-1 at 2) MobileMedia proposes a broader construction, “an image capturing apparatus.” (*Id.*) The court looks to the specification to construe “camera unit” as “a data collection apparatus for obtaining image information.” (’078 patent, col. 3:66)

b. “[M]eans for processing image information from an image received by said camera”

The term “means for processing image information from an image received by said camera” is means-plus-function language. The § 112 ¶ 6 function is “to process an image captured by the camera unit,” and the corresponding structure is “the image processing unit,” or equivalents thereof. (*Id.*, col. 4:48-64, fig. 5)

c. “[M]eans for storing at least a portion of the processed image information in said at least one memory unit of said camera unit for later recall”

“[M]eans for storing at least a portion of the processed image information in said at least one memory unit of said camera unit for later recall” is also means-plus-function language. The § 112 ¶ 6 function is “storing at least a portion of the processed image

¹³ Because the court does not adopt MobileMedia’s proposed claim construction for the term “camera unit,” Apple’s motion to strike MobileMedia’s newly proposed claim construction for the term (D.I. 265) is moot.

information in said at least one memory unit of said camera unit for later recall,” and the structure is “memory unit,” or equivalents thereof. (*Id.*, col. 4:37-62, fig. 5)

d. “[M]eans for processing and for storing at least a portion of the image information obtained by the camera unit for later recall and processing”

The court construes “means for processing and for storing . . .” pursuant to its construction of “means for processing . . .” and “means for storing” The § 112 ¶ 6 function is “to process an image captured by the camera unit and to store at least a portion of the processed image information in said at least one memory unit of said camera unit for later recall.” The corresponding structure is “the image processing unit and memory unit,” or equivalents thereof. (*Id.*, col. 4:37-64, fig. 5)

e. “[M]eans for transmitting image information processed by said processing unit to another location using a radio frequency channel”

The parties agree that the § 112 ¶ 6 function of “means for transmitting image information processed by said processing unit to another location using a radio frequency channel” is “to transmit a picture captured by the camera and processed by the processing unit to another location using a radio frequency channel.” (D.I. 239-1 at 2) The corresponding structure is “cellular mobile phone unit,” or equivalents thereof. (’078 patent, col. 3:37-46, 6:3-9, fig. 3)

3. Direct infringement

MobileMedia alleges that Apple’s iPhones infringe claims 1, 2, 3, 8, and 73 of the ’078 patent. Apple has moved for summary judgment of non-infringement for all of the asserted claims. Specifically, it proffers two theories for non-infringement of

independent claims 1 and 73 and dependent claims 2, 3, and 8. First, Apple asserts that the “camera module” in the iPhones includes neither dedicated image processing memory circuits nor flash memory storage, so it does not satisfy the “camera unit” limitation. (D.I. 330 at 60-64) Second, Apple asserts that the iPhones do not practice the “means . . . for transmitting” limitation because the means must include a telefax modem, and the iPhones do not include a telefax modem.¹⁴ (*Id.* at 64-65) For non-infringement of claim 73, Apple additionally asserts that the iPhones do not practice a “means for processing and for storing at least a portion of the image information obtained by the camera unit for later recall and processing.” (*Id.* at 66-67)

With regard to all of the asserted claims, Apple’s contention that the “camera module” in the iPhones does not satisfy the “camera unit” limitation is not persuasive. The “camera unit” limitation, as construed, does not require any dedicated image processing or memory circuits. Apple concedes that the camera module in question includes optics (lens barrel assembly, lens holder, and IR filter), an image sensor, and a connector. (D.I. 330 at 62; D.I. 331 at A879-880) Rather, Apple relies on its proposed claim construction to argue that the camera module does not practice the “camera unit” limitation because it does not include dedicated memory for storing an image.¹⁵ (*Id.* at 62) However, as construed, the “camera unit” only needs to be able to **obtain** image information, not store it.

¹⁴ MobileMedia does not assert the doctrine of equivalents with respect to the ‘078 patent. (D.I. 364 at 39)

¹⁵ Apple avers that the iPhones, **as a whole**, have flash memory. (D.I. 330 at 63)

Similarly, Apple's contention that the iPhones do not practice a "means . . . for transmitting" is unpersuasive because Apple's contention that the term requires a telefax modem is premised on its proposed construction, which the court has not adopted. (See *id.* at 66) Under the court's construction of that means-plus-function term, the structure is a "cellular mobile phone unit," or equivalents thereof. The parties have not addressed whether the iPhones are cellular mobile phone units, or equivalents thereof. Thus, in light of the claim construction, a determination that the iPhones do not practice a "camera unit" or a "means . . . for transmitting" would be inappropriate. The court denies summary judgment of non-infringement for independent claim 1, as well as claims 2, 3, and 8, which are all dependent from claim 1.

Finally, for claim 73, Apple again bases its non-infringement argument on its proposed construction that the limitation "means for processing and for storing . . ." requires memory "dedicated to storing captured pictures." (*Id.* at 64) However, the court has not adopted Apple's proposed construction and, instead, has construed the structure to be "the image processing unit and memory unit," or equivalents thereof. The parties have not addressed whether the iPhones practice the limitation, as construed. As Apple has not shown that the iPhones do not practice one or more limitations of claim 73, a determination of non-infringement of claim 73 would be inappropriate on summary judgment.

For the foregoing reasons, the court denies summary judgment of non-infringement for all of the asserted claims of the '078 patent.

4. Invalidity

Apple contends that claims 1, 2, 3, and 8 of the '078 patent are invalid as anticipated by Patent No. 5,550, 646 ("Hassan"). For claim 73, Apple asserts as prior art Japanese Patent Publication H6-133081, which was published on May 13, 1994. During the pending reexamination of the '078 patent, the PTO found the asserted claims to be anticipated by Hassan. (JA4504) In order to overcome the rejection, MobileMedia cancelled claim 1 and amended claims 2, 3, and 8 to depend on non-asserted claim 22. Apple contends that MobileMedia's cancellation and amendment of the asserted claims before the PTO constitutes a concession that those claims are invalid. (D.I. 323 at 37) MobileMedia avers that it has not conceded that the examiner's rejection of the asserted claims was correct because it still has the right to appeal the PTO's rejections. (D.I. 332 at 41) The court, at this time, does not view the cancelled claims as a concession of anticipation because reexamination is a proceeding separate and independent from the instant case. The parties have proffered no further arguments regarding the invalidity of the asserted claims of the '078 patent. The court, therefore, denies the motions for summary judgment related to validity.

E. The '394 Patent¹⁶

1. Technology

The '394 patent is titled "Portable Telephone Apparatus Having a Plurality of Selectable Functions Activated by the Use of Dedicated and/or Soft Keys." It was filed

¹⁶ Apple moves to strike portions of Dr. Meldal's declaration (D.I. 335) related to validity opinions of the '394 patent as untimely and improper. (D.I. 377) As the court grants Apple's summary judgment motions for non-infringement and invalidity, the motion is moot.

on February 6, 1996 and issued on April 7, 1998.

The invention pertains to a telephone apparatus that has “a plurality of dedicated keys, a plurality of changeable keys . . . , and a display for displaying a plurality of lines of data.” (‘394 patent, abstract) According to the specification, prior art portable telephones usually have “a multiplicity of keys or buttons,” including alpha-numeric keys and function keys. (*Id.*, col. 1:11-13, 18-20) One example of a function key is a “menu” button, which a user must utilize to access other functions of the telephone, such as functions to store telephone numbers or to view recent dialed and received calls. (*Id.*, col. 1:34-35, 45-48) The patent points out that such “indirect access” to various telephone functions may require users “to memorize the selection of keys for each function or feature or to constantly refer to an instruction manual.” (*Id.*, col. 1:42-44, 65-67) In other words, access to the functions and features can be “cumbersome,” “lengthy,” “difficult,” and “confusing.” (*Id.*, col. 1:35-44)

Accordingly, the ‘394 patent teaches a telephone apparatus that makes operation easier by having “a plurality of main functions” that are relatively easy to operate, readily available to the user, and directly accessible by not requiring access to other functions first. (*Id.*, col. 2:6-18) The invention further provides for a plurality of keys that have “functions or features . . . which change in accordance with a selected mode . . . , function or feature.” (*Id.*, col. 2:21-24) At issue is claim 18,¹⁷ which pertains to a telephone apparatus comprising:

¹⁷ An ex parte reexamination certificate for the ‘394 patent issued on February 12, 2012, but claim 18 was not among the claims reexamined.

a plurality of dedicated keys each having at least one respective dedicated function associated therewith;

a plurality of changeable keys each having at least one respective changeable function associated therewith, in which the function of at least one of said changeable keys is changeable to another function when said operator receives information from one person while said operator is communicating with another person; and

display means for displaying the current function associated with each of said changeable keys.

2. Claim Construction

a. “[O]ne of said changeable keys is changeable to another function when said operator receives information from one person while said operator is communicating with another person”¹⁸

For the reasons that follow, the court construes “one of said changeable keys is changeable to another function when said operator receives information from one person while said operator is communicating with another person” to be “an operational key that may be utilized to activate at least two different functions and is capable of changing those functions at the time the operator is communicating with one person and receives information from a second person.” Although the specification provides that

¹⁸ The parties identified “changeable keys” and “is changeable” as terms for claim construction, but the court finds that the entire phrase “one of said changeable keys is changeable to another function when said operator receives information from one person while said operator is communicating with another person” requires construction. That a key is “changeable” is directly related to the fact that it “is changeable.” Construing “changeable keys” and “is changeable” as separate terms would divide one cohesive term into two and could potentially result in inconsistency. Apple has moved to strike MobileMedia’s newly proposed claim construction for “changeable keys” and MobileMedia’s identification of the term “is changeable” as both being untimely. (D.I. 265) Because the court finds that the entire phrase requires construction and adopts neither party’s construction, Apple’s motion in this regard is moot.

the keys are activated by being depressed, claim 18 is an apparatus claim with no reference to activation at all. Therefore, the court declines to limit claim 18 to changeable keys that have to be depressed to be activated. The changeable keys must simply be capable of changing functions; the plain and ordinary meaning of the word “changeable” is “capable of change.” MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY (11th ed.). For the language “when said operator receives information from one person while said operator is communicating with another person,” the court understands “when” according to its plain and ordinary meaning “at what time.” See MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY (11th ed.).

3. Direct infringement

MobileMedia accuses Apple’s iPhone devices of infringing claim 18 of the ‘394 patent because, when a user who is engaged on a first call receives a second call, certain icons on the iPhones change to perform other functions. Specifically, MobileMedia alleges that the “mute,” “keypad,” and “speaker” functions change to perform an “Ignore” function, that the “add call,” “hold,” and “contacts” functions change to perform a “Hold Call + Answer” function, and that the “End Call” function changes to perform an “End Call + Answer” function. (D.I. 331 at A730)

For purposes of these proceedings, only claim limitation 18b is at issue. Apple asserts that, under its proposed construction, the “mute,” “keypad,” “speaker,” “add call,” “hold,” “contacts,” and “End Call” functions do not practice the limitation of “changeable keys” because they are not “push-buttons” that are depressible. (D.I. 239-1 at 7; D.I. 330 at 45-46) These touch screen areas on the iPhones, however, are keys, as the

term “one of said changeable keys . . .” has been construed, because the term does not require that the keys be push-buttons or be depressible.

Nevertheless, the accused keys are not “changeable,” as required by limitation 18b. While the ‘394 patent discloses that the functions associated with a changeable key may change, it always refers to a single key whose function changes; the actual changeable key **itself** never changes. (D.I. 331 at A1230-35) When a user receives a second incoming call on the iPhones, each accused key feature changes into a wholly different key with a different touch screen area above it, in terms of both size and shape. (D.I. 330 at 48-52) The new icon with the “Ignore,” “Hold Call + Answer,” or “End Call + Answer” function overlaps only a portion of the prior icon. (*Id.*) Therefore, they are not, in fact, the same changeable key, and the iPhones do not practice the “one of said changeable keys . . .” limitation.

Given that the iPhones do not practice the “one of said changeable keys . . .” limitation, the court need not delve into the parties’ dispute regarding infringement of the limitation “in which the function of at least one of said changeable keys is changeable to another function when said operator receives information from one person while said operator is communicating with another person.” The court grants Apple’s motion for summary judgment of non-infringement of claim 18 of the ‘394 patent.

4. Invalidity

MobileMedia claims a priority date of August 30, 1994 for the ‘394 patent, based on a Sony Corporation of America User Specification. (D.I. 324 at A9) Apple asserts two invalidating references that would be prior art under either MobileMedia’s asserted

priority date or the '394 patent application filing date of February 6, 1996. The first prior art reference is the 1987 SX-50 Digital PABX Superset 4 User Guide by Mitel ("1987 Superset 4 User Guide") published May 1987, and the second prior art reference is the Orbitor Video shown publicly by December 1992 and discussed above in the context of the '068 patent. (D.I. 324 at A316.1-318, A684)

The court looks at the 1987 Superset 4 User Guide first. Apple avers that the 1987 Superset 4 User Guide anticipates claim 18 regardless of how any of the claim terms are construed. (D.I. 323 at 8) The parties do not dispute that the 1987 Superset 4 User Guide discloses the preamble, limitation 18a, and limitation 18c. (*Id.*; D.I. 332 at 20-23) Only limitation 18b is at issue for invalidity.

As an initial matter, MobileMedia contends that Apple has offered no admissible evidence that the 1987 Superset 4 User Guide is prior art because Apple's experts have not testified about personal knowledge of the document, where it was found, and when, if at all, it became available to the public. (D.I. 332 at 19) The 1987 Superset 4 User Guide lists an "Issue 1 May 1987" date, as well as a 1987 copyright date. (D.I. 375 at A1341) MobileMedia has not offered any contradictory factual evidence to question that date. An expert may reasonably rely on a copyright date on documentation to determine an approximate date of public availability and, absent any evidence to the contrary, the court may rely on that prior art date. *See Intermec*, 811 F. Supp. at 999; *see also Stored Value Solutions v. Card Activation Techs., Inc.*, 796 F. Supp. 2d 520, 547-58 (2011) (relying on the copyright date on a updated manual when testimony indicated that another version of the manual was available publicly earlier but had been

updated around the copyright year). Here, Apple's expert, Dr. Balakrishnan, provided testimony that the 1987 Superset 4 User Guide was available to the public by May 1987. (D.I. 324 at A684) Dr. Balakrishnan could reasonably rely on the printed copyright date on the document and MobileMedia has offered no evidence to controvert that date; therefore, the court will consider the 1987 Superset 4 User Guide for the validity of the '394 patent.

Apple avers that, in the 1987 Superset 4 User Guide, two of six unmarked soft keys associated with functions displayed on an adjacent LCD screen change functions when a user on a first call receives a second incoming call. (D.I. 323 at 9-10) The 1987 Superset 4 User Guide discloses that "[e]ach softkey is used for more than one prompt, so the prompts in the display change according to what features you are allowed to use on your SUPERSET 4 set at that particular time." (D.I. 324 at A246) Specifically, it discloses a phone with two unmarked keys that are assigned the "Program" and "Redial" functions when there is a first incoming call. (D.I. 324 at A250, A258-59) Once the user answers this first call and is connected, the two keys no longer have any assigned functions (shown on an intermediate screen that the parties label "call duration display").¹⁹ (*Id.*) When there is a second incoming call while the user is on the first connected call, the two keys automatically become associated with the different functions "Swap Camp On" and "Privacy Rel," respectively. (D.I. 323 at 11; D.I. 324 at A250, A258-59) MobileMedia avers that these soft keys do not meet claim limitation

¹⁹ Apple urges the court not to consider the screen showing the call duration display because MobileMedia's expert never offered any testimony regarding it. (D.I. 375 at 26) However, it cannot be disputed that the screen is included in the 1987 Superset 4 User Guide and explained there. (D.I. 324 at A258)

18b because they do not change functions **while the “operator” is in communication with the first caller**; the two keys do not have any functions immediately before the second call comes in, so they are not “changeable” functions. (D.I. 332 at 20-23) Apple argue that “the connection status of the first incoming call is not relevant to [the] analysis – what is relevant is that once that first call is connected, if the operator then receives a second incoming call, the . . . softkey [associated with the ‘Program’ function] will change to the new function of ‘Swap Camp On.’” (D.I. 375 at 24-25) Apple further contends that, if the court does consider the call duration display, claim 18 “expressly covers changeable keys that change from no function to a function (or vice versa)” (D.I. 375 at 27) The question, therefore, is whether the keys described in the 1987 Superset 4 User Guide disclose limitation 18b when they have functions at the time a first incoming call is ringing; have no associated functions while that call is connected; and are associated with different functions when there is a second incoming call while the first call is connected.

The court finds that, given the undisputed material facts, the 1987 Superset 4 User Guide does not disclose claim limitation 18b. In the context of receiving phone calls, the claim language, as construed, requires that a changeable key must be capable of changing functions “at the time” an operator receives a second incoming call while on a first call. The relevant time frame to look at is just before and after the operator receives a second incoming call because the change must happen at the time the second incoming call is received. The 1987 Superset 4 User Guide discloses that, just before the second incoming call (during the time the first call is connected), the two

keys in question have no associated functions at all. They then have associated functions when the operator receives a second incoming call. In other words, they do not change between two functions at that time; rather they become associated with functions when they had none just prior to the second incoming call. Based on this disclosure, the keys in question are not “one of a plurality of changeable keys . . .” as the term is construed by the court. Because the 1987 Superset 4 User Guide does not disclose limitation claim 18b, it cannot anticipate claim 18.

Alternatively, Apple’s asserts that claim 18 is obvious because there was motivation for a person with ordinary skill in the art to combine the 1987 Superset 4 User Guide with the Orbitor Video,²⁰ which shows a second call being answered during a first call. (D.I. 323 at 13-15) It offers evidence showing that the Orbitor Video discloses keys that change functions when a user is engaged in a first call, but the keys change in size and shape. (*Id.* at 15; D.I. 324 at A270) MobileMedia proffers the same authenticity and field of endeavor arguments that the court found unpersuasive in the context of the ‘068 patent.²¹ However, neither party has addressed the obviousness analysis in light of the court’s construction of the term “one of said changeable keys is changeable to another function when said operator receives information from one person while said operator is communicating with another person.” Therefore, the court grants MobileMedia’s motion for summary judgment of no anticipation of claim 18 of the ‘394 patent. The parties’ motions for summary judgment related to obviousness are

²⁰ The Orbitor Video was discussed in detail in the invalidity analysis of the ‘068 patent.

²¹ See *supra* note 3.

denied.

F. The '828 Patent

1. Technology

The '828 patent, titled "Image Display Apparatus," was issued on August 27, 2002 and claims a foreign application priority date of September 8, 1998. It relates to an image display apparatus, such as a display apparatus connected to a computer or a display screen on a digital camera, that can display an image in the desired orientation or direction, "regardless of whether the image display apparatus itself is placed with the shorter or longer side down." ('828 patent, abstract, col. 1:23-27) According to the description of the preferred embodiments, the display panel can be a "thin, lightweight structure such as an LCD . . . or plasma display" (*Id.*, col. 3:38-41) The court focuses on the invention's ability to display an image in a "normal (erect) direction" without any special command. (*Id.*, col. 1:64-67) This feature offers the advantage of easy viewing as compared to conventional methods to view images, like photo albums or slide projectors. (*Id.*, col. 1:28-51, col. 2:1-10) In one embodiment of the invention, the image display apparatus uses a "control microcomputer [to] record[] the displaying-direction information . . . into a memory card via [a] memory card controller," based on information entered by the user pressing a "rotate" button on an operation panel to choose the normal direction of the image. (*Id.*, col. 5:60-67, 6:1-10) "[A] position detection switch is provided to detect whether the image display apparatus is placed with the longer or shorter side down, and send a detection signal to the control microcomputer which will read the displaying-direction information from the memory

card via the memory card controller.” (*Id.*, col. 6:27-32)

At issue are claims 6, 17, and 18, which do not require a controlling means for recording the displaying-direction information described in the above embodiment.

Claim 6 teaches:

6. An image displaying apparatus for displaying image data read from a recording medium, comprising:

image signal generating means for generating an image signal for display based on image information read from the recording medium;

image displaying means for displaying the image signal produced by the image signal generating means; and

means for determining a direction in which an image of the image signal is to be displayed on the image displaying means according to a posture in which the apparatus is placed and information on a direction in which an image of the image signal is to be displayed read from the recording medium.

Claim 17 adds to claim 6 “a display mode selecting means for selecting one of a plurality of image displaying modes.” Claim 18 is dependent from claim 17, teaching the apparatus wherein “the image signal generating means generates an image for each of a plurality of menu items indicating the plurality of image displaying modes, and one of the plurality of menu items is selected by the display mode selecting means.”

2. Claim Construction

a. “[D]isplay mode selecting means”

The “display mode selection means” of claims 17 and 18 uses means-plus-function language. The court construes the § 112 ¶ 6 function to be “selecting one of a plurality of image displaying modes.” The corresponding structure is “a control panel,”

or equivalents thereof. (*Id.*, col. 11:35-37, fig. 15)

3. Direct infringement

At issue in the '828 patent are claims 17 and 18. MobileMedia accuses Apple's iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch, and iPod shuffle ("the '828 accused products") of infringing the asserted claims.

The parties agree on the means-plus-function construction of "means for determining a direction in which an image of the image signal is to be displayed . . .," a term in non-asserted claim 6. (D.I. 239-1 at 14) The asserted claims depend from claim 6. The agreed-upon § 112 ¶ 6 function is "determining a direction in which an image is to be displayed according to a posture in which the apparatus is placed and information on a direction in which an image is to be displayed read from the recording medium." (*Id.*) The corresponding structure is "image processing circuitry, such as a microcomputer, that reads displaying-direction information from memory via a memory controller and a position detection signal from an automatic position detection switch such as a gravity sensor." (*Id.*) Within this agreed construction, however, the parties disagree as to what constitutes a "position detection switch," language not used in the claim at all. (D.I. 330 at 68-72; D.I. 364 at 39-43)

The '828 accused products contain an accelerometer that functions by detecting linear acceleration in the x, y, and z dimensions. (D.I. 331 at A1156) The parties argue over whether or not the accelerometer is a position detection switch. MobileMedia alleges that the accelerometer is a position detection switch because, pursuant to

testimony by its expert, Dr. Williams, a “switch” is “something that allows the processor to know the intention of the user.” (*Id.* at A911, A1019) Apple, on the other hand, avers that a “switch” is a “device that opens or closes a circuit,” so the accelerometer cannot be a position detection switch. (D.I. 330 at 70)

As “position detection switch” is not in the claim language of the ’828 patent, the court does not “construe” the term. The parties’ experts disagree over whether the accelerometer in the ’828 accused products is a position detection switch under the parties’ proposed definitions or, alternatively, under the doctrine of equivalents. This issue is a question of fact suitable for determination by a jury. Accordingly, the court denies Apple’s motion.

4. Invalidity

The invalidity analysis of the ’828 patent revolves around whether the “display mode selection means” limitation of claims 17 and 18 is taught in the prior art. MobileMedia asserts a priority date of September 8, 1998 based on a prior Japanese filing. Apple asserts U.S. Patent No. 6,563,535 (“Anderson”), filed on May 19, 1998, as anticipatory prior art. (D.I. 324 at A422) Anderson relates to an image processing system for a digital camera that has an orientation detector to detect the physical orientation of the camera so that an image can be rotated in accordance with the current orientation of the device. (*Id.* at A226, col. 3:1-5) The camera can support at least four modes of operation – live view, capture, instant review, and play – and the correct image is automatically displayed in all modes, regardless of the orientation of the image or device. (*Id.* at A225-26, col. 2:48-51, 3:5-9)

MobileMedia does not dispute that Anderson discloses all of the limitations of non-asserted claim 6, from which claims 17 and 18 depend, so the court focuses on the limitation “display mode selecting means for selecting one of a plurality of image displaying modes” in the asserted claims. Under the court’s construction, the limitation’s function is “selecting one of a plurality of image displaying modes,” and the corresponding structure is a “control panel,” or equivalents thereof. Apple avers that Anderson discloses a control panel because it has an input/output device that “serves as an interface, whereby the user, through the use of buttons, menus, arrows, overlays, cursors, prompts, etc., can control various functions of the digital camera” (D.I. 323 at 48) Apple also avers that the control panel disclosed in Anderson allows selection of different “image displaying modes” because it has operation modes of live view, capture, instant review, and playback, the last of which “sequentially displays a series of stored pictures on the LCD.” (D.I. 324 at A227, 6:14-15).

MobileMedia, citing its expert, Dr. Williams, disagrees and avers that Anderson “does not disclose, teach, or suggest a plurality (two or more) of different display modes, such as slide show, fade display and the like.” (D.I. 336 at ¶ 37) MobileMedia’s argument is premised on its proposed construction that the structure of the “display mode selecting means” is a “control panel providing control buttons for selecting a display mode such as slide show, fade display and the like, and equivalents thereof.” (D.I. 239-1 at 15; D.I. 332 at 62) Because the term “display mode selecting means” was not construed according to MobileMedia’s proposed construction, the limitation does not require any slideshow display or even an automatic transition, as MobileMedia claims.

Alternatively, MobileMedia argues that, even under Apple's proposed construction of the term, the Anderson patent does not teach a function of selecting a plurality of "image displaying modes." (D.I. 332 at 65) MobileMedia's argument is again based on its interpretation of that limitation as requiring a slide show with transitions, which plays back images "already captured and stored into memory." (*Id.*) The court has not adopted such a narrow construction for "image displaying modes."

In light of the foregoing, Anderson anticipates claim 17 of the '828 patent. Claim 18, dependent from claim 17, is also anticipated for the same reasons.

G. The '155 Patent²²

1. Technology

The '155 patent is entitled "Method and Apparatus for Information Processing,

²² Apple has moved to strike, as improper and untimely, portions of Dr. Loy's supplemental expert report (D.I. 379 at ex. A) and declaration (D.I. 334) pertaining to the '155 patent. (D.I. 377) MobileMedia served Dr. Loy's supplemental expert report on April 5, 2012, after receiving Apple's rebuttal report on non-infringement and before the conclusion of expert discovery. (D.I. 379 at ex. A) It filed the declaration on June 4, 2012, with its opposition to Apple's motion for invalidity. In the supplemental expert report, Dr. Loy clarifies his opinion from his first infringement report on the "detecting positional information" term. For example, Dr. Loy clarifies his testimony regarding how each of the '155 accused products uses longitude and latitude information of reference base stations to calculate the device's longitude and latitude. (D.I. 379 at ex. A, ¶¶ 48-52) Moreover, Apple marked the Loy Supplemental Report as an exhibit at Loy's deposition and questioned him about it, so Apple had an opportunity to conduct rebuttal discovery. (D.I. 415 at 3) Dr. Loy's declaration was limited to addressing new contentions in the Grimes declaration and other new theories presented in Apple's opening summary judgment brief on invalidity. Dr. Loy had no reason to compare the disclosure of the draft standard to the disclosure of the final MP3 standard in his initial report because Apple had not yet made any arguments regarding this comparison. Therefore, the court denies Apple's motion to strike in regard to the supplemental expert report and the declaration. See, e.g., *Dow Chem. Co. v. Nova Chems. Corp.*, 2010 WL 2044931 (D. Del. May 20, 2010) (permitting declarations that provided greater detail or elaborated on processes or methods mentioned in the experts' initial reports).

and Medium for Information Processing.” It was issued April 20, 2004, and priority is claimed to a foreign application filed February 9, 1999.

The patent is related to navigation technology for a “portable terminal” wherein, according to the abstract, a user inputs “route search conditions,” the route search conditions are transmitted to a navigation server, and the navigation server detects map data and provides it to the portable terminal. The background section describes several problems with conventional car navigation equipment. For example, car navigation equipment is “difficult to be used portably,” is expensive, has limited capacity to store the contents of route guidance, and is unable to provide guidance methods and information to the user beyond conventional route guidance. (‘155 patent, col. 1:21-42) The invention seeks to solve these problems by providing an information processing apparatus that is “inexpensive and downsized, to offer the information in order to perform a variety of guidance.” (*Id.*, col. 1:46-49)

Generally, an information processing apparatus, information process method, and providing medium involve acquiring positional information transmitted from a server; receiving predetermined route search conditions from the server; detecting map data corresponding to the received route search conditions; setting the guide point corresponding to the received route search conditions; generating guidance data; and transmitting the generated guidance data to execute a variety of guidance. (*Id.*, col. 3:26-36) To make the information processing apparatus inexpensive and downsized, the invention teaches that positional information is detected and transmitted to a server, and predetermined route search conditions are also input and transmitted to the server;

guidance data is then transmitted from the server, and the output of the received guidance data is controlled. (*Id.*, col. 2:27-38) In one embodiment, the navigation service providing system is “a portable terminal that communicates via radio waves with a base station proximate to a communication route . . . and is connected to a navigation server through a network to which the base station is connected.” (*Id.*, col. 1:27-33)

Claims 1, 2, 4, and 5 are at issue. Claim 1 is directed to a navigation system apparatus that is capable of determining its position in any one of three different modes: “(i) global positioning satellite information, (ii) position input data supplied by a user, and (iii) information from a reference base station” Once the position of the portable terminal has been detected by “detecting means,” claim 1 further comprises:

first transmitting means for transmitting the positional information detected by the detecting means to the server;

inputting means for inputting a desired route search condition from among a number of predetermined route search conditions;

second transmitting means for transmitting the route search conditions input by the inputting means to the server;

receiving means for receiving guidance data transmitted from the server, the guidance data corresponding to the positional information transmitted by the first transmitting means and corresponding to the route search conditions transmitted by the second transmitting means; and

output controlling means for controlling the output of the guidance data received by the receiving means.

Claim 2 depends on claim 1, further comprising “map data receiving means for receiving map data transmitted from the server . . . and display controlling means for controlling the display of the map data received” Claim 4 is an independent claim teaching an

information processing apparatus similar to claim 1 in step form. The final asserted claim, claim 5, is dependent from claim 4 and adds a “map data receiving step” and “display controlling step.”

2. Claim Construction

a. “[D]etecting means . . .”

“[D]etecting means . . .” is a means-plus-function term. As Apple proposes, the court construes the § 112 ¶ 6 function pursuant to the claim language: “detect apparatus’ positional information from any one of: (i) information sent by a global positioning satellite; (ii) positional information input by a user; or (iii) the arrival time difference of a base station position signal sent from a reference base station.” The structure is “a communication part, an azimuth sensor, an inputting means, and a detecting part comprised of CPU, ROM, RAM,” or equivalents thereof. (‘155 patent, col. 5:32-6:6, fig. 3) The specification describes these structural components as the ones necessary for the three detecting modes that are taught. (*Id.*, col. 5:32-6:6)

b. “[D]etecting positional information”²³

The court construes “detecting positional information” to mean “determining the location of the portable terminal.” Contrary to the parties’ proposed constructions, the specification only mentions “latitude and longitude” as an example of detecting position:

²³ The court adopts neither party’s proposed claim construction for “detecting positional information.” Therefore, Apple’s motion to strike MobileMedia’s newly proposed claim construction for this term (D.I. 265) is moot.

“to detect position (e.g., latitude and longitude) of the portable terminal.”²⁴ (*Id.*, col. 7:49-51) In addition, the invention encompasses detecting positional information from a user input address or from a reference base station positional signal. (*Id.*, col. 7:21-32, col. 8:6-9) Thus, the court does not read “latitude and longitude” as a limitation on the term.

c. “[P]osition input data supplied by a user”²⁵

MobileMedia proposes that “position input data supplied by a user” be construed as “information entered by the user specifying the position of the portable terminal, including, but not limited to an address.” (D.I. 239-1 at 217) Apple, on the other hand, proposes that it means “information entered by the user specifying the position of the portable terminal.” (*Id.*) Given the parties’ proposed constructions, there is no dispute that the information entered by the user must specify the position of the portable terminal; the only dispute is the breadth of the type of user input that the term encompasses. The court adopts MobileMedia’s construction of the term to mean “position input data supplied by a user specifying the position of the portable terminal, including, but not limited to an address.” This construction is consistent with the specification, which provides “the position of the portable terminal 1 can be also detected, on the basis of the exact positional information which is input by an [sic] user,

²⁴ The abbreviation “e.g.” stands for the Latin *exempli gratia*, or “for example.” **The American Heritage Dictionary of the English Language** (4th ed. 2000).

²⁵ Apple has moved to strike MobileMedia’s newly proposed claim construction for “position input data supplied by a user” as untimely and unfairly prejudicial. (D.I. 265) However, the parties’ proposed constructions are materially similar; Apple does not suffer any unfair prejudice under the court’s construction.

such as the address.” (‘155 patent, col. 8:6-9) An address is just one example of the claimed “position input data supplied by a user.”

d. “[I]nformation from a reference base station”

The court adopts Apple’s construction of “information from a reference base station,” that is, “a signal broadcast from a reference base station, said signal including that base station’s location and the time of broadcast.” This construction is based on the specification, which provides:

[T]he terminal positional information detecting part 46 reads the base station ID and the positional information . . . from the base station position signal received by the communication controlling part 45 respectively, and executes the processing such as detecting the position of the base station 2 from which the signal is transmitted and calculating the arrival time difference of the base station position signal, so as to detect the position . . . of the portable terminal 1.

(*Id.*, col. 7:33-41) There is no other description in the specification of this limitation, and MobileMedia has not offered any explanation based upon the knowledge of one of ordinary skill in the art.

e. “[I]nputting means for inputting a desired route search condition from among a number of predetermined route search conditions”

The parties agree that the § 112 ¶ 6 function of “inputting means . . .” is “inputting a desired route search condition from among a number of predetermined route search conditions.” (D.I. 239-1 at 28) The parties dispute whether the structure for the means-plus-function term “inputting means . . .” requires a “voice input/output controlling part.” Apple contends that the corresponding structure should be “input/output controlling part keyboard, tablet, jog dial, LCD, vibrator **and** voice input/output controlling part.” (*Id.*)

(emphasis added) MobileMedia proposes “input/output control composed of a keyboard, tablet or jog dial; **or** a voice controller composed of microphone, A/D converter, amplifier, digital signal processor, ROM and/or RAM; all corresponding control circuitry; and equivalent thereof.” (*Id.*) (emphasis added)

Figure 5 displays the input/output controlling part distinct from the voice input/output controlling part, and figure 4 is a block diagram showing the construction of a voice input/output controlling part separately. (*Id.*, col. 3:36-37, 6:10-16, figs. 4, 5) Dependent claim 3 teaches an information processing apparatus with a limitation wherein “the route search conditions are input by voice.” Thus, Apple’s construction requiring a voice input/output controlling part is too narrow. The ‘155 patent contemplates incorporating a voice input/output controlling part into “inputting means,” but does not require it. Consistent with the claims and specifications, the court construes the structure for “inputting means . . .” to be “input/output controlling part; and/or a voice input/output controlling part,” or equivalents thereof. (*Id.*, col. 6:10-16, fig. 5)

3. Direct infringement

MobileMedia accuses Apple’s iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch, and iPod shuffle (collectively, “the ‘155 accused products”) of infringing claims 1, 2, 4, and 5 of the ‘155 patent. Apple has moved for summary judgment of non-infringement for all of the asserted claims.

In this regard, Apple avers that, under both parties’ proposed claim constructions,

the “detecting means . . .” claim limitation 1a is not practiced by any of the ‘155 accused products. Limitation 1a provides “detecting means for detecting positional information, said detecting means being operable to detect said positional information in any one of three different modes in which each mode utilizes a different one of (i) global positioning satellite (GPS) information,²⁶ (ii) position input data supplied by a user, and (iii) information from a reference base station.” Apple asserts that the ‘155 accused products do not practice “detecting positional information” using “position input data supplied by a user.” (D.I. 330 at 85-87)

The undisputed material functionality of the ‘155 accused products is as follows. The user may use the products to input a location in several ways, namely: (1) typing in an address; (2) using a “long press” (pressing on the touch screen for a specified amount of time to return the address of a location on the map); or (3) performing an “arrow tap” (tapping an arrow icon). (D.I. 330 at 84-85 & n.18) In the first method of typing in an address, the user-input information is sent to Google servers to determine the corresponding latitude and longitude information, the latitude and longitude information is sent back to the ‘155 accused products, and the products place a green pin on a displayed map to indicate that location. (D.I. 331 at A951; D.I. 330 at 86-87) The third method, an arrow tap, can trigger each of the ‘155 accused products to determine its current position using, for example, GPS information, in which case the position of the device is indicated with a blue marker on the map. (D.I. 330 at 85 n.18; D.I. 331 at A1253) The blue marker indicating the device’s position is separate and

²⁶ Apple does not dispute that each of the ‘155 accused products can use GPS information to determine its current position. (D.I. 330 at 84)

distinguishable from a green pin. (D.I. 330 at 86; D.I. 331 at A1261) In other words, the third method, an “arrow tap,” can allow the device to determine its position by GPS information, which is marked differently from locations entered by one of the first two methods.

Under both parties’ construction of “position input data supplied by a user,” the data must specify the position of the portable terminal. As MobileMedia argues, all three methods described above certainly allow a user to input his or her current location, regardless of the color of the pin or marker that is displayed on the map. (D.I. 364 at 60) A user could happen to input the device’s current location (such as address) if he or she knows it; it does not matter how that location is marked on the map or whether it overlaps, merges with, or overwrites the blue marker indicating the device’s location. In addition, as construed, “detecting positional information” simply requires determining the **location** of the portable terminal. Apple argues that the ‘155 accused products obtain latitude and longitude information from a Google server when a user inputs an address, so the products do not practice “detecting positional information.” However, this argument is irrelevant under the court’s construction of “detecting positional information.” It is not disputed that the ‘155 accused products can obtain location information from user input, and such user input may be the position of the portable terminal. Therefore, the ‘155 accused products practice “detecting positional information” using “position input data supplied by a user.” The court finds that claim limitation 1a is practiced by the ‘155 accused products.

Apple further avers that MobileMedia failed to provide any evidence or opinion

that the '155 accused products detect positional information using "information from a reference base station" in the manner required by the asserted claims or that they practice the limitation of "inputting means." (D.I. 330 at 91-92) Apple contends that MobileMedia's expert, Dr. Loy, did not address Apple's construction of the term, which the court has adopted. (D.I. 331 at A985) Although Dr. Loy does not address Apple's construction verbatim in his first expert report on infringement, he avers that the '155 accused products can use information from reference base stations like WiFi and cell towers to determine their location. (*Id.* at ex. A, ¶¶ 402-09) Specifically, each of the '155 accused products can allegedly use longitude and latitude information from the base stations to calculate its position. (*Id.*) Dr. Loy further avers that a function or file "inserts time, latitude, and longitude" to the local database on the device, which indicates time may be a part of how the '155 accused products use information from a reference base station to determine position. (*Id.* at ex. A, ¶ 403) Therefore, whether the '155 accused products practice using "information from a reference base station," as construed, to determine location is a question of fact upon which MobileMedia has provided expert testimony. Entry of summary judgment on this issue is not appropriate.

Finally, the parties dispute whether the '155 accused products have an "inputting means . . .," as required by the asserted claims. Apple's argument is premised on a construction that requires an "inputting means" to have a voice-related component. (D.I. 330 at 93) Because the court has not construed this means-plus-function term to require a structure with a voice-related component, summary judgment based on the "inputting means . . ." limitation is inappropriate.

Therefore, the court denies summary judgment of non-infringement for claim 1. As claims 2, 4, and 5 either depend on claim 1 or teach methods incorporating the limitations of claim 1, the court also denies summary judgment of non-infringement for those claims.

4. Invalidity

MobileMedia asserts that the '155 patent is entitled to a priority date of February 9, 1999, based on the filing date of a Japanese application. (D.I. 324 at A8) Apple asserts U.S. Patent No. 5,808,566 ("Behr") as anticipatory prior art for the asserted claims and U.S. Patent No. 6,249,245 ("Watters") as prior art that renders the asserted claims obvious when viewed together with Behr. (D.I. 323 at 70-80) Neither Behr nor Watters was considered by the examiner during prosecution of the '155 patent. (*Id.* at 71; D.I. 324 at A173-201)

Behr was filed on June 23, 1995 and is a continuation-in-part of an application filed on June 24, 1994, which issued as U.S. Patent No. 5,543,789. (D.I. 324 at A143) It relates to a method and system for providing route guidance from a server to a remote unit and discloses detection of positional information from user input through a keyboard or from a position locator. (*Id.* at A162, col. 8:30-34) Behr provides that the position indicator "may perform radio frequency (RF) triangulation or may be responsive to GPS (Global Positioning System), LORAN C signals or other satellite positioning systems for providing latitude and longitude positioning information." (*Id.*) LORAN C systems "utilize information from a reference base station as that term [is] used in Claim 1 of the

'155 Patent."²⁷ (*Id.* at A463-64). Therefore, it cannot be disputed that Behr mentions all three methods of detection: user input via the keyboard, GPS, and information from a reference base.

The dispute around Behr as anticipatory prior art focuses on whether Behr discloses the "detecting means" limitation of the asserted claims of the '155 patent. (D.I. 332 at 69) According to MobileMedia, although Behr mentions the three detection modes taught by the '155 patent, it does not provide for **using** all three as alternative detection modes in one device. (D.I. 332 at 69-70) MobileMedia points to the language of Behr, which discloses using two means for determining positional information – the position locator and keyboard. (*Id.*) The position locator, in turn, is capable of using either GPS **or** information from a reference base station, but not both, to detect positional information. (*Id.*) Behr teaches a positional indicator that uses one method of detecting position – either RF triangulation, GPS, or LORAN C. It does not teach that the methods can be combined so as to "trade off precision and robustness, develop measures of confidence, provide fallbacks, and . . . operate seamlessly in both urban and outdoor settings" (D.I. 334 at ex. A, ¶ 38) The court agrees that Behr does not anticipate the asserted claims of the '155 patent.

Alternatively, Apple asserts that Behr and Watters, when viewed together, render the '155 patent invalid for obviousness. Watters discloses a position indicator that uses both GPS and information from a reference base system in order to overcome a

²⁷ MobileMedia does not dispute the functionality of LORAN C systems, only whether the Behr discloses using it with GPS and user input data. (D.I. 332 at 70-71)

problem with GPS that there are often not enough satellites in view when called upon by a mobile device. (D.I. 324 at A188, col. 2:60-67) It was “an object of the . . . invention to provide a system that combines GPS and cellular technology in order to overcome deficiencies associated with the use of either technology alone, in order to provide a more efficient, reliable, and effective position determination for a given object such as a mobile terminal.” (*Id.* at A190, col. 6:30-35) Apple argues it would be obvious to use the disclosure in Watters as the position indicator in the apparatus disclosed by Behr. (D.I. 323 at 74-76) MobileMedia counters that Watters strongly favors GPS over reference base station systems because Watters points out the inaccuracies of using information from a reference base station. (D.I. 332 at 73; D.I. 324 at A199, col. 23:5-60) Moreover, MobileMedia argues that, while the examiner did not consider Watters during prosecution of the ‘155 patent, Watters is cumulative of other references that the examiner did consider and that together teach the disclosure in Watters. (D.I. 332 at 72-73) Apple’s assertion of obviousness is based on its generic argument that “[b]oth references relate to common technology of navigation systems and disclose known techniques to improve similar devices in the same field, and the combination yields predictable results.” (D.I. 324 at A578) Because factual disputes remain regarding these arguments and neither party has met its burden of proof for obviousness or non-obviousness, the court denies the parties’ motions for summary judgment in this regard.

H. The ‘170 Patent²⁸

²⁸ Apple moves to strike portions of the declaration of Dr. Loy (D.I. 334) related to the ‘170 patent. (D.I. 377) The declaration was filed on June 4, 2012, after the close of discovery, with MobileMedia’s opposition to summary judgment of invalidity. Apple alleges that the declaration introduces new validity opinions regarding the ‘170 patent.

1. Technology

The '170 patent, titled "Coding Apparatus for Digital Signaling," relates to "an apparatus for compressing a digital input signal . . . so that the quantity subject to processing . . . and errors in the minimum audible level are reduced . . ." ('170 patent, col. 2:63-67, 3:1-10) The patent was issued on February 6, 1996 and claims a foreign application priority date of March 29, 1991.

Both block floating processing and orthogonal transform processing were known in the prior art for compressing and expanding digital signals, but were inefficient. Block floating involves dividing a digital input signal into blocks of a predetermined number of words and then applying block floating processing to each block. (*Id.*, col. 1:18-22) Orthogonal transform processing is used to "transform orthogonally a signal on the time axis into a signal on the frequency axis." (*Id.*, col. 1:27-29) One problem with the latter is that some orthogonal transforms may result in overflows; this problem can be avoided if the number of bits generated by the operation is allowed for in advance. (*Id.*, col. 1:42-52) Accordingly, to reduce the number of bits to be processed, it has been proposed to "adaptively vary the size of the block . . . depending on a signal," apply block floating processing, then apply orthogonal transformation. (*Id.*, col. 1:58-66) "In known block floating processing, the maximum one of the absolute values of the words in the block is sought, and is used as a common block floating coefficient for all the

Dr. Loy's declaration clarifies his prior opinion and responds to new arguments that Apple introduces on summary judgment. For example, Apple compares the Draft MP3 Standard to the final MP3 Standard on summary judgment for invalidity (D.I. 330 at 6-7), and Dr. Loy responds to this new argument. As such, the court denies Apple's motion to strike portions of the declaration of Dr. Loy related to the '170 patent.

words in the block.” (*Id.*, col. 1:22-26) This solution has the undesirable effect, however, of increasing the amount of processing required. (*Id.*, col. 2:10-12, 2:31-33) In addition, the allowable noise level is assumed to be constant across each critical band, which can cause “appreciable errors, resulting in the possibility of an excess number of bits being allocated for quantizing the spectral coefficients towards the high frequency end of the critical band.” (*Id.*, col. 2:49-53)

The ‘170 patent relates to a coding apparatus for compressing a digital input signal and expanding a compressed digital signal. (*Id.*, col. 2:63-64, 4:61-62) It teaches an apparatus that “applies block floating processing to a digital input signal, orthogonally transforms the . . . processed signal on the time axis into plural spectral coefficients on the frequency axis, divides the spectral coefficients into plural critical bands, and carries out adaptive bit allocation to quantize the spectral coefficients in each critical band.” (*Id.*, col. 1:10-16) By changing “the length of the block subject to transform processing . . . depending on [the] signal,” it reduces the quantity subject to processing. (*Id.*, col. 2:65-67, 3:1-2) By dividing the spectral coefficients into plural critical bands and applying adaptive bit allocation, the invention also reduces the errors in the minimum audible level. Claim 49, which teaches an apparatus that applies the reverse process to **expand** a compressed digital signal, is at issue:

49. An apparatus for expanding a compressed digital signal including plural quantized spectral coefficients and auxiliary information, the apparatus comprising:

adaptive bit allocation decoding means, operating in response to the auxiliary information, for inversely quantizing the quantized spectral coefficients to provide plural spectral coefficients;

block floating means for applying inverse block floating to the spectral coefficients to provide inverse block floating processed spectral coefficients;

inverse orthogonal transform means for inversely orthogonally transforming the inverse block floating processed spectral coefficients to provide plural frequency range signals; and

inverse filter means for synthesizing the frequency range signals to provide an output signal.

2. Claim Construction

a. “[A]daptive bit allocation decoding means . . .”

“[A]daptive bit allocation decoding means, operating in response to the auxiliary information, for inversely quantizing the quantized spectral coefficients to provide plural spectral coefficients” is a means-plus-function term. The § 112 ¶ 6 function is construed according to the claim language to be “inversely quantizing the quantized spectral coefficients to provide plural spectral coefficients,” and the corresponding structure is “adaptive bit allocation decoding,” or equivalents thereof. (*Id.*, col. 14:42-45, fig. 14)

b. “[B]lock floating means . . .”

“[B]lock floating means for applying inverse block floating to the spectral coefficients to provide inverse block floating processed spectral coefficients” is a means-plus-function limitation. The § 112 ¶ 6 function is construed to be “applying inverse block floating to the spectral coefficients to provide inverse block floating processed spectral coefficients.” The corresponding structure is construed to be “floating determination processing,” or equivalents thereof. (*Id.*, col. 14:46-49, fig. 14)

3. Direct infringement

MobileMedia accuses Apple's iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch, and iPod shuffle (collectively, "the '170 accused products") of infringing claim 49 of the '170 patent. Apple has moved for summary judgment of non-infringement. The non-infringement analysis revolves around the implementation of an equation ("the equation") from the ISO/IEC 11172-3 MPEG-1 Part 3: Audio Standard ("the MP3 Standard") used in decoding and playing MP3 audio files. (D.I. 324 at A354-77; D.I. 331 at A843-45) The parties agree that the "upper rail" of the equation performs the inverse quantization of the "adaptive bit allocation decoding means," and the "lower rail" performs the "inverse block floating" of the "block floating means." (D.I. 330 at 78; D.I. 331 at A845, A994-96)

At issue are the first two limitations: whether the source code of the '170 accused products practice the "adaptive bit allocation decoding means . . ." limitation and the "block floating means for applying inverse block floating . . ." limitation. (D.I. 364 at 52) MobileMedia contends that the source code of the '170 accused products, including the Espico codec,²⁹ the Spirit codec, and the iTunes codec (collectively, "the accused codecs"), implement the equation in the manner taught by the '170 patent. (D.I. 334 at ex. A ¶¶ 71-113; D.I. 364 at 51-52) Apple counters by arguing that "the '170 accused products implement the equation in one integrated step, rather than in multiple steps with the intermediate results allegedly required by the claim. (D.I. 331 at A1289-

²⁹ "Codec" is short for coder/decoder and is "a program that can either encode or decode a data stream (or even both)." Mark Harris, *Codec Definition: What is a Codec?*, ABOUT.COM, <http://mp3.about.com/od/glossary/g/Codec-Definition-What-Is-A-Codec.htm> (last visited Nov. 5, 2012).

90) Specifically, Apple relies on the testimony of its expert, Dr. Reader, to argue that the “lll_dequantize_sample” function and “mp3d_scfdec.c” file in the Episco and Spirit codecs, respectively, combine the exponents of the first rail and second rail before using that combined exponent to perform the equation in one step. (D.I. 331 at A1291)

In response, MobileMedia rebuts Apple’s argument with two theories. First, it avers that there is nothing in the claim language or claim construction to suggest that claim 49 must be practiced with an intermediate result. (D.I. 364 at 53) Second, in case the claim does require an intermediate result, it cites the testimony of its expert, Dr. Loy, to explain its understanding that the source code uses such an intermediate result. (D.I. 364 at 53-56; D.I. 364 at 52-53) According to Dr. Loy’s expert analysis and testimony, the source code at issue performs the equation using multiple operations. (D.I. 334 at Ex. A ¶¶ 92-99, 121-34) The code must allegedly be converted to machine or assembly code before it is executed, and such translation results in multiple operations that use an intermediate result from the first rail calculation in the second rail calculation. (D.I. 331 at A996; D.I. 364 at 54-55)

Because the parties and their respective experts disagree as to the implementation of the source code in the ‘170 accused products, a question of fact remains regarding whether the accused codecs use “intermediate results.” The court denies Apple’s motion for summary judgment of non-infringement of the ‘170 patent.

4. Invalidity

MobileMedia asserts, and Apple does not dispute, a priority date of March 29, 1991 for the ‘170 patent, based on the filing date of two Japanese patent applications.

(D.I. 324 at A9) Apple asserts that a draft of the MP3 Standard, the Committee Draft for MPEG Audio Coding Standard (“Draft MP3 Standard”) is prior art with a publication date of December 7, 1990.³⁰ (*Id.* at A266-67)

The parties’ anticipation and obviousness arguments focus on the “block floating means” limitation of claim 49. While they agree that the limitation requires “bit shifting,” they dispute whether the Draft MP3 Standard discloses bit shifting. Apple argues that the Draft MP3 Standard discloses bit shifting because its disclosure is “nearly identical” to the algorithm in the final MP3 Standard that MobileMedia asserts discloses bit shifting.³¹ (D.I. 323 at 6-7) Dr. Loy, MobileMedia’s expert, however, disputes the similarities and points to disclosures in the appendix of the Draft MP3 Standard to conclude that “the Draft Standard does not disclose a bit-shifting process and does not

³⁰ MobileMedia argues that the Draft MP3 Standard is not prior art on grounds that Apple failed to offer any evidence to authenticate the contents or publication date of the document. (D.I. 332 at 11-13) However, Dr. Reader, who was involved with the creation of the MPEG standards, testified regarding the creation, revision, and distribution of MPEG documents. (D.I. 411 at A1382-886) For example, he testified that “[d]ocuments at MPEG meetings were distributed to a large number of interested persons in different companies, academic institutions, and other organizations throughout the world” and were thus widely distributed and publicly accessible. (*Id.* at A1384, ¶ 10) He also testified that, based on his experience and possession of the same document in his personal archive of MPEG documents, the Draft MP3 Standard is a true and correct copy. (*Id.* at A1386, ¶ 25) MobileMedia has pointed to the handwritten text “Ver 3” as being suspicious, but that notation is consistent with the status (“[c]ontribution of text version 3.0”) printed on the document, and Dr. Reader has testified that such handwritten markings were common on MPEG documents in the late 1980s and early 1990s. (D.I. 324 at A266; D.I. 411 at A1386) Apple has thus offered sufficient evidence to satisfy its burden of proof for authentication. *See, e.g., Stored Value Solutions*, 796 F. Supp. 2d 520 at 547-58 (admitting as prior art a manual authenticated by a witness with personal knowledge of the circumstances surrounding publication and whose testimony was consistent with the document’s copyright date).

³¹ MobileMedia asserts that the final MP3 Standard discloses bit shifting for purposes of its infringement argument.

inherently disclose a bit-shifting process.” (D.I. 334 at ¶¶ 163-67) There is also a factual dispute regarding whether one of ordinary skill in the art would have thought it obvious to implement the process in the Draft MP3 Standard. Apple avers that the Draft MP3 Standard discloses multiplying an integer power of two in some circumstances, and one of ordinary skill in the art would know that the multiplication could be accomplished with bit shifting. (D.I. 375 at 10) In rebuttal, Dr. Loy avers that, given the language of the Draft MP3 Standard and its indefinite algorithm, one of ordinary skill in the art would have not found it obvious to implement the process in the Draft MP3 Standard using bit shifting. (D.I. 334 at ¶¶ 163-72) Therefore, in light of the factual issues outstanding, the court denies the motions for summary judgment regarding validity.

I. The ‘942 Patent³²

1. Technology

The ‘942 patent, titled “Enhanced Delivery of Audio Data for Portable Playback,” was issued on April 15, 2003. It is a continuation of a patent application filed July 29, 1998 and a continuation in part of patent applications filed May 7, 1996 and May 24, 1995. (‘942 patent, col. 1:4-13)

³² MobileMedia alleges that Apple’s iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod nano, iPod touch, and iPod classic (collectively, “the ‘942 accused products”) infringe claims 1, 6, and 8 of the ‘942 patent. MobileMedia, in its opposition to Apple’s motion for partial summary judgment of non-infringement, does not assert that Apple directly infringes claims 6 and 8. (D.I. 364 at 67) Apple confined its motion to indirect infringement (D.I. 330 at 96-100), so infringement of the ‘942 patent will be discussed in the induced infringement section below. See *infra* Part IV.K.2.

The '942 patent relates to the "delivery of compressed digital audio data, potentially at rates much faster than the real time rate" (*Id.*, col. 1:16-19) Prior art approaches to audio data transmission "d[id] not take advantage of the possibility of using an available transmission medium, such as an internet that already provides for inter-communication between millions of homes, offices and other facilities." (*Id.*, col. 1:43-46) Nor did the approaches allow for optimizing audio signal processing for sending or receiving a limited number of audio file formats. (*Id.*, col. 1:46-51) The invention disclosed in the '942 patent attempts to address these issues by teaching the packaging, delivery, reception, storage, and playback of audio files in a format that allows for transmission of the files at rates many times higher than the normal audio playback rates and in a modest-sized, transportable device that can store several hours of audio programming. (*Id.*, col. 1:51-62) "The invention combines the remote data access capability resident in a personal computer, the portability of a storage and playback unit ('SPU'), and a set of tailored, streamlined control functions to simplify and automate a seamless process for selecting, receiving, storing, and/or playing back audio data files" at the convenience of the user. (*Id.*, col. 2:52-63)

According to the preferred embodiment, the data file transmission channel is preferably an "internetwork channel," which can use a communication protocol known in the prior art to route the audio or text data files. (*Id.*, col. 4:24-26, 5:15-22) Two examples of existing communications protocols are point-to-point protocol ("PPP") and transmission control protocol/internet protocol ("TCP/IP"). (*Id.*, col. 5:18-22) Compression of the audio data files for transmission can be accomplished by existing

compression schemes. (*Id.*, col. 4:42-45) Data files that are received at the personal computer are then buffered by a communications terminal and preferably stored in a hard drive associated with a microprocessor. (*Id.*, col. 5:34-38) In various embodiments, the received data files are processed and played back at the PC or through an SPU. (*Id.*, col. 5:34-50, 6:12-22) For example, a text data file can be passed through various text-to-speech conversion processes or optical character recognition. (*Id.*, col. 6:41-54, 7:28-43) In one embodiment, the SPU includes a docking interface connector, data transfer software, a data input/output module, and an on-board microprocessor connected to ROM, RAM, and a memory unit, like flash memory. (*Id.*, col. 6:29-36) "The transfer commands reside in the host PC, where transfer is activated." (*Id.*, col. 6:36-37)

Claims 1, 6, and 8 are at issue, and there are no terms for claim construction.

Independent claims 1 and 6 are reproduced:

1. Portable apparatus for accessing digital audio data stored at a remote location, the apparatus comprising:

a storage unit for storing the data; and

a playback unit for playing back the data;

the apparatus being capable of communicating via a docking station with a computer connectable to a communications link for downloading the data from the remote location and uploading the data to the apparatus.

6. Audio information storage and playback apparatus comprising:

a computer and associated data interface, programmed to receive and extract an audio data file from an incoming signal over an internetwork channel at a transfer rate that is greater than a playback rate for audibly

perceptible playback of information contained in the data file; and

a data transfer mechanism adapted for connection to the computer and to a playback module that receives and stores the data file from the computer and provides audibly perceptible playback of the data file, wherein said playback module further comprises:

flash memory for receiving and storing said data file from said computer;

a playback selection device to select and retrieve at least one selected data file recorded in the flash memory;

a digital-to-analog conversion device to convert the selected data file into an audio signal; and

an audio processing device to select and retrieve the selected data file from the flash memory and to reproduce the selected data file in audibly perceptible form for playback at a real time delivery rate.

Claim 8 adds to the apparatus of claim 6,

wherein said playback module includes at least one of an audibly perceptible display and a visually perceptible display that displays user information from at least one of the following: (1) an estimated length of time required for real time playback of a user-specified selection recorded on said playback module; (2) a title or phrase describing a user-specified selection recorded on said playback module; and (3) a user-specified category to which a user-specified selection recorded on said playback module is assigned.

2. Invalidity

The '942 patent was a continuation of U.S. Application No. 09/124,584 ("584 application"), filed on July 29, 1998 and now abandoned, which was a continuation-in-part of the application, filed May 7, 1996, that matured into U.S. Patent No. 5,841,979 ("the '979 patent"). ('942 patent, cover page) The '979 and '942 patents name the same three inventors – Nathan Schulhof ("Schulhof"), James Janky ("Janky"), and Grant

Jasmin. (*Id.*) MobileMedia claims it is entitled to a priority date of May 7, 1996, based on the filing of the application for the '979 patent; Apple contends the priority date should be July 29, 1998, when the abandoned '584 application was filed. (D.I. 323 at 53; D.I. 332 at 49)

Apple argues that the '942 patent cannot claim priority back to the May 7, 1996 filing date of the '979 patent because the '979 patent does not disclose the use of a personal computer as a "base device" or direct audio "data transfers," which are limitations in each of the asserted claims of the '942 patent. (D.I. 323 at 55-62) If, as Apple asserts, July 29, 1998 is the proper priority date, then Apple contends that U.S. Patent No. 6,453,281 ("Walters") would be anticipatory prior art because it allegedly discloses every limitation of the asserted claims of the '942 patent. (*Id.* at 62-65) MobileMedia responds by arguing that the '942 patent is entitled to a priority date of May 7, 1996 so that Walters would not be prior art. (D.I. 332 at 49-54) However, MobileMedia does not dispute that, if Walters is indeed prior art, it anticipates each limitation of the asserted claims.³³

³³ Alternatively, Apple argues that, under either party's proposed priority date (including MobileMedia's asserted priority date of May 7, 1996), the '942 patent would be invalid for obviousness in light of a predecessor patent, U.S. Patent No. 5,557,541 ("the '541 patent"), filed by Schulhof and Janky on July 21, 1994, and ordinary skill in the art. (D.I. 324 at A29) The '541 patent allegedly discloses every limitation of the asserted claims of the '942 patent except that it discloses a "base device" for downloading audio data that is not a personal computer. (D.I. 323 at 65) According to Apple's expert, the delivery of audio to personal computers was well known prior to MobileMedia's asserted priority date of May 7, 1996, so a person of ordinary skill in the art would have found it obvious at the time to use a personal computer with the system taught by the '541 patent. (*Id.*) MobileMedia asserts that Apple's expert testimony contradicts its position that the '942 patent cannot claim priority back to the filing date of the '979 patent. (D.I. 332 at 57-58)

If the asserted claims of the '942 patent are obvious in light of the '541 patent,

A patent is entitled to the priority date of an earlier filed application only if “the written description of the earlier filed application discloses the invention claimed in the later filed application sufficient to satisfy the requirements of § 112.” *In re NTP, Inc.*, 654 F.3d 1268, 1277 (Fed. Cir. 2011) (citing *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1571 (Fed. Cir. 1997)). “[A] prior application itself must describe an invention, and do so in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought. . . . One shows that one is ‘in possession’ of the invention by describing the invention, with all its claimed limitations, not that which makes it obvious.” *Lockwood*, 107 F.3d at 1571-72.

The parties agree with this standard and only dispute whether the ‘979 patent discloses two limitations that are in the asserted claims of the ‘942 patent: (1) a base device that is a personal computer; and (2) a direct data transfer between the personal

then the asserted claims would be invalid regardless of which party’s proposed priority date is proper. Apple avers in this regard that its expert, Dr. Kelly, has provided “a lengthy, detailed, and well-reasoned explanation of the extent to which downloading audio to personal computers was well known and of why incorporation of a personal computer into the system of the ‘541 Patent in place of the ‘base docking station’ would have been obvious to one of ordinary skill in the art.” (D.I. 324 at A591-94, A97-98, A600-01, A608-12; D.I. 375 at 59) For example, the band Aerosmith released a song exclusively on the online service CompuServe in 1994. (D.I. 324 at A596-97) In addition, the ‘979 patent describes the delivery of audio as being “available and well known to users of personal computers” including via “products offered by Netscape, NetCom, America OnLine and Compuserve.” (‘979 patent, col. 5:48-55) MobileMedia contends that Apple’s reliance on Dr. Kelly’s testimony for obviousness in light of the ‘541 patent is improper because Dr. Kelly’s testimony cannot be reconciled with his testimony that it would have been difficult to combine a personal computer with the system disclosed in the ‘979 patent. (D.I. 333 at M467; D.I. 332 at 57). Moreover, MobileMedia’s expert, Dr. Williams, testified that the system disclosed in the ‘541 patent would have been incompatible with a computer. (D.I. 336 at ¶ 146) Insofar as relevant factual disputes still remain, the court does not determine whether the ‘942 patent is obvious in light of the ‘541 patent and the knowledge of one of ordinary skill in the art.

computer and the portable audio device via a docking station or a data transfer mechanism. (D.I. 323 at 53-62; D.I. 332 at 51-54) The court finds that the '979 patent does not disclose a base device that is a personal computer; the '942 patent is not entitled to the filing date of the '979 patent. The court does not reach whether or not the '979 patent discloses direct transfers of data.

On its face, the '979 patent discloses a base device that is a "microprocessor." ('979 patent, col. 5:61-6:3) To determine whether or not the microprocessor meets the personal computer limitation in the '942 patent, the court looks to an affidavit signed by the inventors on the '979 patent during prosecution. (JA1133-34) In this affidavit, the inventors swore to the PTO that the microprocessor in figure 1 of the '979 patent was disclosed in the prior art '541 patent, which was conceived and filed by two of the same inventors. (*Id.*) Based on this affidavit, Apple avers that MobileMedia must either take the position that both the '541 patent and the '979 patent disclose a microprocessor that is a computer or that both disclose a microprocessor that is not a computer. (D.I. 323 at 55-56)

MobileMedia avers that the microprocessors in the '541 patent and the '979 patent were used very differently, so the inventors' affidavit was not an admission that the same base device disclosed in the '979 patent was also disclosed in the '541 patent. (D.I. 332 at 56) MobileMedia also references figure 1 of the '979 patent to argue that at least one embodiment of the microprocessor is a personal computer because it is connected to a keyboard, display, hard disk drive, RAM, ROM, and modem, among other things. (*Id.* at 52) However, the specification of the '979 patent provides that the

data transfer protocol of the microprocessor base device is “matched” to the data transfer protocol of the subscriber’s personal computer. (‘979 patent, col. 5:37-41) This language indicates that the base station is not the personal computer. Moreover, the affidavit refers to the microprocessor as the base device “to receive and transfer audio data.” (JA1133-34)

Having convinced the PTO to issue the ‘979 patent based on a representation that the microprocessor base device of the ‘979 patent is disclosed in the ‘541 patent, MobileMedia is estopped from now arguing that the ‘979 patent discloses a personal computer base device that is not present in the ‘541 patent. The Federal Circuit has established that judicial estoppel is appropriate “when a party takes a later position that is inconsistent with a former position in the same dispute, on which the party had been successful and had prevailed based on the former position.”³⁴ *Bonzel v. Pfizer, Inc.*, 439 F.3d 1358, 1362 (Fed. Cir. 2006). MobileMedia’s position in arguing that the ‘979 patent discloses a personal computer is irreconcilable with the affidavit the inventors filed to avoid rejection of the patent. Preserving the sworn affidavit preserves the integrity of the PTO and the courts and, therefore, judicial estoppel is appropriate. The ‘942 patent is not entitled to the May 7, 1996 priority date based on the filing of the application for the ‘979 patent, given that it does not disclose the personal computer base device limitation that is in the asserted claims of the ‘942 patent.

³⁴ The Federal Circuit has found that arguments made during prosecution of a commonly-owned but **unrelated** patent do not create prosecution history estoppel. See *Abbott Labs. v. Dey L.P.*, 287 F.3d 1097, 1104-05 (Fed. Cir. 2002) (emphasis added). However, here, the ‘942 was filed as a continuation-in-part of an application that matured into the ‘979 patent.

Accordingly, the proper priority date for the '942 patent is July 29, 1998. Under this priority date, MobileMedia has not disputed that Walters is anticipatory prior art for the asserted claims. Therefore, the court grants Apple's motion for invalidity of claims 1, 6, and 8 of the '942 patent.

J. The '430 Patent³⁵

1. Technology

The '430 patent is titled "Method and System for Automatically Recording Music Data Files by Using the Hard Drive of a Personal Computer as an Intermediate Storage Medium." It was filed May 8, 1998 and issued May 21, 2002. In the prior art, creating a customized playlist required the user to choose and initiate the recording of each track before choosing and recording the next track. (*Id.*, col. 1:34-40) The disadvantage to this method of creating a custom playlist was that the user must be present during the entire process to initiate the recording of each track. (*Id.*, col. 1:41-43, 1:61-66)

The invention in the '430 patent relates to "a method and system for creating playlists that are automatically recorded to a recording medium," thus obviating the need for the user to oversee the entire recordation process. (*Id.*, col. 1:17-20) The methodology teaches several steps. First, PC software creates a local database on the PC hard drive of the tracks which are available to the user for creating the custom

³⁵ MobileMedia accuses Apple's iPhone 3G, iPhone 3GS, iPhone 4, iPad WiFi, iPad WiFi + 3G, iPad 2 WiFi, iPad 2 WiFi + 3G, iPod classic, iPod nano, iPod touch, and iPod shuffle (collectively, "the '430 accused products") of infringing claims 1 and 5 of the '430 patent. Because MobileMedia alleges induced infringement of the asserted claims (D.I. 364 at 44), infringement of the '430 patent will be discussed in the induced infringement section below. See *infra* Part IV.K.3.

playlist. (*Id.*, col. 5:33-36) To do this, “[t]he software reads the raw track data from the storage medium [such as a CD], compresses it, and writes it to the PC hard drive.” (*Id.*, col. 5:38-40) The user then uses a graphical user interface (“GUI”) “to create a custom playlist and to signal the intent that a recording of that custom playlist to a storage medium be made.” (*Id.*, abstract, col. 5:40-42) The user may create the local database before or at the same time that he or she creates the custom playlist. (*Id.*, col. 5:43-46) When the user indicates the custom playlist is to be recorded, the track information stored in the PC hard drive is decompressed and written to the recording device. (*Id.*, col. 5:49-51, 6:39-42) The software may also allow a user to buy tracks over the internet through a browser. (*Id.*, col. 5:25-28)

Claims 1 and 5 are at issue. Claim 1 teaches:

1. A method of automatically recording audio/visual selections in a custom playlist, comprising the steps of:

selecting one or more audio/visual selections, including titles and contents, to be added to the custom playlist from at least one source medium;

obtaining information about the selected audio/visual selections;

saving the information for each of the selected audio/visual selection to a playlist file in order to add the selected audio/visual selections to the custom playlist;

modifying the saved information for the selected audio/visual selections in the playlist file in order to manipulate the audio/visual selections in the custom playlist;

saving the playlist file and the selected audio/visual selections to a storage device of a personal computer; and

controlling a recording device that is physically connected to the personal

computer to record the selected audio/visual selections included in the custom playlist from the storage device to a recordable medium.

Claim 5 is dependent from claim 3, which is dependent from claim 1. Claim 5 has the additional limitations “wherein the step of obtaining information about the selected audio/visual selections comprises searching a collection of audio/visual selections for title and audio/visual selection names,” and “wherein the collection of audio/visual selections is obtained from an external information source.”

2. Claim Construction

a. “[P]laylist file”³⁶

The court construes “playlist file” to mean “a file that contains the custom playlist.” This construction is consistent with the agreed-upon construction for the ‘080 patent, which was bifurcated and stayed in the instant case. (D.I. 239-1 at 16)

K. Induced Infringement

Apple seeks partial summary judgment that it does not indirectly infringe any of the patents-in-suit, either by inducement or contributorily. (D.I. 328) MobileMedia has only accused Apple of induced infringement of the asserted patents.³⁷ (D.I. 364)

1. Induced infringement of the ‘068, ‘231, and ‘394 patents³⁸

³⁶ Because the court does not adopt MobileMedia’s proposed claim construction for the term “playlist file,” Apple’s motion to strike MobileMedia’s newly proposed claim construction for this term (D.I. 265) is moot.

³⁷ The parties mention joint infringement in passing, but MobileMedia has not alleged joint infringement. The court does not address this issue.

³⁸ The discussion in this subsection regarding the ‘068 patent only applies to claims 1, 7, and 8.

As discussed above, Apple's accused products do not directly infringe claims 1, 7, and 8 of the '068 patent, all asserted claims of the '231 patent, and all asserted claims of the '394 patent. Liability under induced infringement depends on the patent owner having first shown direct infringement. *Joy Technologies*, 6 F.3d at 774. Insofar as the court grants summary judgment of no direct infringement of claims 1, 7, and 8 of the '068 patent, all asserted claims of the '231 patent, and all asserted claims of the '394 patent, there can be no underlying direct infringement to establish indirect infringement. Therefore, the court grants summary judgment for no induced infringement with respect to those claims.

2. Induced infringement of the '075, '078, '828, '155, '170, and '942 patents³⁹

On the other hand, the court denies Apple's motion for summary judgment of no direct infringement of all asserted claims of the '075, '078, '828, '155, '170, and '942 patents, as well as claims 23 and 24 of the '068 patent. Therefore, the court analyzes whether summary judgment of no induced infringement of those claims would be appropriate on summary judgment.

To establish active inducement of infringement, a patent owner must show that an accused infringer "knew or should have known [its] actions would induce actual infringements." *DSU Med. Corp.*, 471 F.3d at 1306. Apple avers that MobileMedia's experts did not opine as to whether Apple knew or should have known that its actions would induce actual infringements of all asserted claims of the '075, '078, '828, '155,

³⁹ The discussion in this subsection also addresses indirect infringement of claims 23 and 24 of the '068 patent.

'170, and '942 patents, as well as claims 23 and 24 of the '068 patent. (D.I. 330)

MobileMedia responds with evidence that Apple instructs customers on how to use its accused products in infringing ways through various manuals, help files, and advertising. (D.I. 365 at M790-91, M794-95) In addition, MobileMedia's expert, Philip Johnson ("Johnson"), testified regarding expert market surveys in which a substantial number of iPhone customers indicated that they use the iPhones in ways that directly infringe the '068, '075, '155, and '942 patents.⁴⁰ (D.I. 365 at M794-95) As MobileMedia has raised genuine issues of fact regarding the underlying direct infringement and Apple's knowledge of it, at least after receiving the notice letter from MobileMedia, Apple's motion for partial summary judgment of no induced infringement is denied with respect to all asserted claims of the '075, '078, '828, '155, '170, and '942 patents, as well as claims 23 and 24 of the '068 patent.⁴¹

3. Induced infringement of the '430 patent

Given the parties' detailed arguments regarding induced infringement of asserted claims 1 and 5 the '430 patent, a separate discussion is warranted. On summary judgment, Apple argues that MobileMedia has not provided sufficient evidence of

⁴⁰ Johnson also testified regarding market survey data for the '430 patent, discussed below.

⁴¹ Alternatively, Apple avers that there is no evidence Apple knew of any asserted patent before February 19, 2010, when MobileMedia sent a notice letter to Apple's then-CEO informing him that the iPhones were infringing. (D.I. 412 at 2) The court declines to reach this argument, as it is a damages, not infringement, issue. See *Walker Digital, LLC v. Facebook Inc.*, 852 F. Supp. 2d 559, 565 (D. Del. 2012) (noting that the only substantive consequence of limiting an indirect infringement claim to post-notification of defendant is "[t]he fact that [plaintiff] would be prohibited from collecting damages related to indirect infringement for any pre-knowledge (e.g., pre-filing) conduct").

underlying direct infringement and has “fail[ed] to cite a single example of anyone directly infringing Claim 1 or 5.” (D.I. 412 at 29)

In *Oracle Corp. v. Parallel Networks*, 778 F. Supp. 2d 527, 543-44 (D. Del. 2011), this court found that the patentee, Parallel Networks, had provided sufficient circumstantial and direct evidence of direct infringement by Oracle Corp.’s customers, to wit, evidence that Oracle Corp. instructed its customers “how to use the accused Oracle Products in an infringing manner and . . . freely and openly strongly encourage[d] them to do so.” In this regard, Parallel Networks pointed to a presentation at a conference and documentation that instructed or encouraged Oracle’s customers to use the accused products in an infringing manner. The court did not require specifically identifying any individual customers at the summary judgment stage. *Id.* MobileMedia has proffered similar evidence of direct infringement underlying its claims of inducement. It has provided iTunes Help file documentation that its expert asserts instructs Apple’s customers on how to perform the disputed steps of the asserted claims. Moreover, regarding infringing individuals, MobileMedia has provided an expert market survey showing that a majority of users have performed discrete steps of claims 1 and 5, including creating and modifying a playlist.⁴² (D.I. 333 at M449-54) Accordingly, MobileMedia has provided sufficient evidence of direct infringement by Apple’s customers to withstand summary judgment.

Apple also asserts that summary judgment of non-infringement would be proper

⁴² The court does not reach whether the survey establishes that anyone actually performed each and every step of the asserted claims.

because “MobileMedia has not identified anything in the accused products that allegedly constitutes the claimed ‘playlist file.’” (D.I. 330 at 74-77) A “playlist file,” as construed, is a file that contains the custom playlist. According to Apple’s expert, Dr. Kelly, the source code files and other documents that MobileMedia’s expert, Dr. Loy, cited in his expert report do not contain the claimed playlist file. (D.I. 331 at A1302-08)

MobileMedia concedes that Dr. Loy could not identify the allegedly infringing playlist file by name but contends that he sufficiently identified functionality of the ‘430 accused product as evidence that the playlist file exists. (*Id.* at A1003; D.I. 364 at 48) For example, Dr. Loy states that “[w]hen a CD is inserted, iTunes immediately creates a playlist and sets its properties, including marking it as the playlist for importing CD data Every time new information is added to this playlist, . . . iTunes . . . write[s] it out to the database” (D.I. 366 at ex. A, ¶ 306) Dr. Loy also pointed out that one of Apple’s employees, Mr. Wysocki, testified that the iTunes database, or library, is a file. (*Id.* at ex. A, ¶ 307) Furthermore, Dr. Loy contends that he verified the existence of a playlist file by logging out of iTunes after creating a Wish List and then logging back in to verify the Wish List was saved. (*Id.* at ex. A, ¶ 330) Because the parties’ dispute regarding the existence of a playlist file in the ‘430 accused products is a factual one, the court does not resolve the issue on summary judgment.

When viewed in the light most favorable to MobileMedia, there remain genuine issues as to whether Apple induces infringement of the ‘430 patent. The court denies Apple’s motion for summary judgment in this regard.

V. MobileMedia’s Motion for Partial Summary Judgment on Apple’s Defenses of Estoppel, Waiver, and Prosecution History Estoppel

Apple's third affirmative defense states that "[MobileMedia's] claims are barred, in whole or in part, by the doctrines of waiver, laches and/or estoppel." (D.I. 10 at ¶ 116) In its fifth affirmative defense, Apple avers that "[MobileMedia] is barred, under the doctrine of prosecution history estoppel, from construing the claims of the patents-in-suit in such a way as may cover any of Apple's products or processes by reasons of statements made to the [PTO] during the prosecution of the applications that led to the issuance of the patents-in-suit." (*Id.* at ¶ 118) MobileMedia moves to dismiss both defenses on summary judgment on the grounds that Apple has not presented any supporting facts or evidence. (D.I. 301) In response, Apple does not address its defenses of waiver and laches (D.I. 330 at 100-02); insofar as there is no indication Apple has pursued these theories during discovery, the court grants MobileMedia's motion on these grounds. Apple acknowledges that prosecution history estoppel is "not an affirmative defense" when used to rebut allegations of infringement under the doctrine of equivalents, and it is also a "basic tenet of claim construction." (*Id.* at 100) (citation omitted) Insofar as the court agrees that prosecution history estoppel is not an affirmative defense, the court grants MobileMedia's motion for summary judgment, but does not bar from consideration Apple's prosecution history estoppel arguments made in the claim construction and/or infringement contexts.

VI. CONCLUSION

For the foregoing reasons, the court grants in part and denies in part Apple's motion for partial summary judgment of non-infringement and the parties' motions regarding validity. Furthermore, the court grants MobileMedia's motion for summary

judgment on Apple's defenses of "waiver, laches, and/or estoppel," as well as Apple's defense of prosecution history estoppel insofar as it is used as an affirmative defense.

An appropriate order shall ensue.