

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

PERSONALIZED MEDIA
COMMUNICATIONS, LLC,

Plaintiff,

v.

APPLE, INC.,

Defendant.

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CIVIL ACTION NO. 2:15-CV-01366-JRG

MEMORANDUM OPINION AND ORDER
SUPPORTED BY FINDINGS OF FACT AND CONCLUSIONS OF LAW

A bench trial was held on June 22, 2021, wherein the Court heard evidence and argument on Defendant Apple, Inc.’s (“Apple”) counterclaim of prosecution laches and affirmative defenses of obviousness-type double patenting and unclean hands. (Dkt. No. 635). The Court has considered the totality of the evidence presented at the jury trial, the bench trial, and in the written record,¹ including the post-trial submissions from the parties (Dkt. Nos. 638, 639, 640, 641), and now issues its opinion supported by the following Findings of Fact (“FF”) and Conclusions of Law (“CL”) pursuant to Fed. R. Civ. P. 52(a)(1) and 52(c). In view of the evidence presented and the salient authorities—most notably, the recent Federal Circuit decision in *Hyatt v. Hirshfeld*, 998 F.3d 1347 (Fed. Cir. 2021)—and as discussed in detail herein, the Court finds and declares that Plaintiff

¹ Citations herein are as follows unless otherwise indicated: “Jury Tr.” refers to the jury trial transcript (consecutively paginated across Dkt. Nos. 574, 575, 576, 577, 578, 579, 581, 582, 583); “Bench Tr.” refers to the bench trial transcript (Dkt. No. 645); “Stip.” refers to the numbered stipulations in the Joint Bench Trial Memorandum (Dkt. No. 623); “PTX” and “DTX” refer to trial exhibits according to each party’s most recent Amended Exhibit List (Dkt. Nos. 633, 634); “FF” and “CL” refer internally to the numbered paragraphs herein.

Personalized Media Communications, LLC’s (“PMC”) asserted patent, U.S. Patent No. 8,191,091, is **UNENFORCEABLE** under the doctrine of prosecution laches.²

I. FINDINGS OF FACT

A. Procedural History

[FF 1] This is an action for patent infringement. PMC sued Apple in July of 2015, asserting U.S. Patent No. 8,191,091 (the “’091 patent”) and United States Patent No. 8,559,635 (the “’635 patent”). (Dkt. No. 1). Both patents are entitled “Signal Processing Apparatus and Methods. (*Id.*). PMC alleged that both patents were infringed by FairPlay, a digital rights management (DRM) technology developed and implemented by Apple on its computers, mobile phones, and other devices. (Dkt. No. 1 at ¶ 2).

[FF 2] On February 17, 2017, the Court granted an agreed motion to stay this case pending *inter partes* review of the asserted patents. (Dkt. No. 355). The Patent Trial and Appeal Board (PTAB) initially invalidated all asserted claims of both patents, but the Federal Circuit reversed as to several claims of the ’091 patent. (Dkt. No. 373). Upon remand, the Court severed the asserted claims of the ’635 patent—which remains held in administrative abeyance at the PTAB—and lifted the stay as to the ’091 patent, setting it for trial. (*Id.*).

[FF 3] The Court then ruled on several matters that had been pending when the case was stayed. Among these matters was a motion by PMC to strike several of Apple’s counterclaims and affirmative defenses. (Dkt. Nos. 250, 251). The Court granted the motion in part, striking several of Apple’s affirmative defenses due to a discovery order violation, but allowing Apple to proceed with its equitable counterclaims and affirmative defenses of inequitable conduct, unclean

² As Apple has prevailed on its counterclaim—extinguishing any liability for patent infringement—the Court does not reach Apple’s affirmative defenses of obviousness-type double patenting and unclean hands. *See I.N.S. v. Bagamasbad*, 429 U.S. 24, 25 (1976) (“As a general rule courts . . . are not required to make findings on issues the decision of which is unnecessary to the results they reach.”).

hands, and prosecution laches. (Dkt. No. 461). The Court ordered that the bench-trial issues would be undertaken post-verdict and that PMC would be afforded additional discovery in the interim. (*Id.*).

[FF 4] The Court also denied a motion to strike several of Apple’s invalidity theories, including obviousness-type double patenting (“OTDP”), concluding that those theories were adequately disclosed in Apple’s invalidity contentions. (Dkt. No. 459).

[FF 5] A jury trial was held during the week of March 15, 2021. The jury returned a unanimous verdict finding that Apple infringed at least one of claims 13, 14, 15, or 16 of the ’091 patent. The jury awarded PMC \$308,488,108.00 in reasonable-royalty damages in the form of a running royalty. (Dkt. No. 572).

[FF 6] A few weeks later, the Court entered a Bench Trial Docket Control Order, setting a date for the bench trial and setting interim dates for PMC’s additional discovery. (Dkt. No. 616). The parties filed a Joint Bench Trial Memorandum, stating both the contested issues with respective positions and ninety-seven Stipulations. (Dkt. No. 623). The Court also held a pre-trial conference. (Dkt. Nos. 631, 632).

[FF 7] The bench trial was held on June 22, 2021. (Dkt. No. 631). The parties informed the Court that Apple would no longer pursue its inequitable conduct counterclaim. (Bench Tr. 12:22–13:1). The Court proceeded to hear evidence and argument on the three remaining issues of prosecution laches, OTDP, and unclean hands.

B. The 1981 and 1987 Patent Applications

[FF 8] PMC and its patents originated with the inventions of John Harvey and James Cuddihy. (Jury Tr. 325:22–329:10). On the advice of Tom Scott, a friend and former classmate of

Mr. Harvey who is a patent attorney—Mr. Harvey and Mr. Cuddihy sought patent protection for their inventions. (Jury Tr. 329:23–330:9).

[FF 9] Messrs. Harvey and Cuddihy filed their first patent application on November 3, 1981. (Jury Tr. 325:29–331:12). Mr. Harvey testified that he and Mr. Cuddihy drafted the entire application themselves. (*Id.*). This application was designated U.S. Patent Application No. 06/317,510 (the “’510 application”). (DTX-3 (cover); Stip. 36). U.S. Patent No. 4,694,490 (the “’490 patent”) issued from the ’510 application on September 15, 1987. (Stips. 1–2). The ’510 application was 44 pages long. (Stip. 3). Harvey and Cuddihy filed several continuations based on the disclosure in the ’510 application. (Stips. 5–9). The ’510 application is referred to internally by PMC as “Harvey 1.” (Stip. 4; Bench Tr. 23:6–12).

[FF 10] On September 11, 1987, Messrs. Harvey and Cuddihy filed U.S. Patent Application No. 07/096,096 (the “’096 application”). The ’096 application was a continuation-in-part of the original disclosure in the ’510 application. (DTX-3 (cover); Stips. 6–13). The ’096 application was around 557 pages long. (Stip. 11). The disclosure in the ’096 application eventually matured into the asserted ’091 patent, which issued 25 years later in 2012. (DTX-3 (cover)). The ’096 application is referred to internally by PMC as “Harvey 3.” (Stip. 12; Bench Tr. 23:6–12).

[FF 11] These two applications formed the universe of PMC’s patent disclosures. PMC has been issued 101 patents as of April 22, 2020 from the 1981 and 1987 specifications. (Stip. 96). Mr. Harvey acknowledged at the jury trial that PMC’s patents did not contain any new inventions beyond what was originally disclosed in 1981 and 1987. (Jury Tr. 352:4–353:14). He noted that he “ha[d] not studied what’s gone on in the world . . . since 1987.” (Jury Tr. 356:5–18).

C. PMC and its Patent Strategy

[FF 12] PMC was officially founded in 1987 as the National Cable Clearinghouse. (Jury Tr. 221:18–24). The name was later changed to the Personalized Mass Media Corporation (“PMMC”), and again to Personalized Media Communications (PMC).³ (Jury Tr. 251:10–14; Bench Tr. 43:11–13). Key individuals, along with Mr. Harvey, Mr. Cuddihy, and Mr. Scott, included Mary Katherine (“Kazie”) Metzger and Gerald Holtzman. Mr. Holtzman (who died during the pendency of this lawsuit and testified only by deposition) was the past president of PMC, and before that served as its general counsel. Mr. Scott is PMC’s current general counsel and was previously outside counsel. Ms. Metzger is PMC’s current CEO. (Jury Tr. 212:22–214:3; 230:7–231:15; 249:1–9; 252:24–253:4; Bench Tr. 21:2–23).

[FF 13] From 1981 until 1994, PMC and its inventors prosecuted their patent applications serially. (DTX-3 (cover)). During that time, PMC filed a total of seven patent applications, including the ’510 application in 1981 and the ’096 application in 1987. (Bench Tr. 23:6–24:14).

[FF 14] According to deposition testimony from Mr. Harvey, PMC’s prosecution strategy at this time was to file continuation applications “as late as the law allowed.” (Bench Tr. 60:14–21). In another deposition from 1995, Mr. Harvey admitted that PMC’s strategy was to pursue one patent application at a time and wait until it issued before pursuing the others. (Nov. 15, 1995 Harvey Dep. Tr. 538:2–17, Dkt. No. 638-14 (“Q. Was the company strategy to pursue one and then wait on the others until that one was about to issue? A. That’s certainly what we did.”)). He also acknowledged that “one of the reasons” for this strategy was so that the seventeen-

³ It generally understood in the record that PMC and PMMC refer to the same company, and these terms may be used interchangeably in the record and herein. (*See, e.g.*, Bench Tr. 43:11–13).

year patent term would start as late as possible. (Nov. 14, 1995, Harvey Dep. Tr. 439:18–21, Dkt. No. 638-13).

[FF 15] PMC internal documents corroborate this strategy and its purpose. One document from 1990 that describes PMC’s business strategy contains a section on PMC’s “Patents and Other Intellectual Property Protection.” (DTX-89 at 22).⁴ Under the sub-heading “Strategy for Prosecuting Pending Patents in the United States,” the document notes that “[b]y prosecuting the separate inventions serially rather than simultaneously, the patent owner achieves a portfolio of patent coverage that provides protection for considerably longer than seventeen years because the various patents issue gradually over time and the seventeen year term of each patent begins on its issue date.” (DTX-89 at 27). The document continues:

The Company believes that it can continue to prosecute broad claims on all its technologies, including PTV, PPrint, PRadio, and its communications metering and broadcast-oriented parallel processing systems, for years to come. Its strategy is to prosecute coverage on its technologies *deliberately over time* in such a way that broad coverage is in effect at any given time while *the duration of coverage is prolonged as long as possible.*”

(*Id.* (emphasis added)). The document also contrasts this with the patent systems in Europe, Japan, and Australia, which “afford twenty years of coverage” for patents that “commences on their filing dates rather than their issue dates.” The document describes this as “disappointing.” (*Id.* at 28).

[FF 16] Another business strategy document, entitled “An Introduction to the Personalized Mass Media Corporation” and dated April 1992, notes that PMC “believes that its intellectual property position will enable it to exercise far-reaching market control for *as long as 30 to 50 years.*” (DTX-1000 at 3). Mr. Scott, testifying as PMC’s corporate representative, corroborated this strategy statement. (Bench Tr. 38:16–40:7).

⁴ DTX-89 is excerpted from a larger document. Pin cites are to the native pagination.

[FF 17] The strategy is detailed further in a letter dated May 6, 1994 authored by a company called St. Clair Intellectual Property Consultants, Inc. (“St. Clair”) and addressed to Mr. Robert N. Caird, Senior Vice President of Corporate Development at PMC (the “St. Clair Letter”). (DTX-99). St. Clair advised PMC and Mr. Caird that “[a] patent licensing program will be most effective when it is launched *after widespread infringement of the subject patents has been established*. Once infringement becomes widespread in an industry, the patented technology becomes so deeply embedded in commercial products that design around is not an option to infringers.” (*Id.*). The letter continues:

In view of the early stage of commercial introduction of the PMMC technology, it may be premature to launch a licensing program on the patents at this point. Our concern is that launch at this time would only serve to alert the industry to the existence of the PMMC patents at a stage when design around or outright avoidance is still feasible.

The better strategy may be to keep the PMMC patents hidden while industry infringement is quietly monitored. PMMC could then roll out the patents to the industry at an appropriate time in the future, after the PMMC technology has been widely adopted.

(*Id.* at 2–3).

[FF 18] The content of the St. Clair letter was corroborated by Mr. Scott during his testimony. (Bench Tr. 42:15–45:9). Mr. Scott testified that PMC did not adopt the proposals in the St. Clair letter. (Bench Tr. 56:5–15). However, the record in this case indicates otherwise: PMC did, in substance, pursue the strategy outlined in the St. Clair letter—even if not formally adopted.

[FF 19] Another internal PMC document shows that PMC took this tack as early as 1991—nearly three years prior to the St. Clair letter. (DTX-169). The document, entitled “Potential Partners/Co-Ventures/Consortium Members” and dated September 12, 1991, notes that “[i]n some cases markets had not yet matured to benefit from applications of the Company’s technologies.

During this period, therefore, *the Company had deliberately chosen not to publicize widely its technologies or plans.*” (DTX-169 at 1).

[FF 20] Apple is specifically identified in the September 12, 1991 document as one of several “companies that are natural candidates for participating in the commercialization of PMMC’s technologies.” (DTX-169 at 2). Other companies identified include Intel, IBM, Hewlett Packard, AT&T, and Microsoft, among several other well-known companies in various industries. (*Id.* at 5–7).

[FF 21] Boyd Lemna, a PMC executive responsible for licensing, testified that he would consider PMC’s patents to be what are “classically called” submarine patents. (Bench Tr. 62:24–63:19). As Mr. Lemna explained, a submarine patent is “a patent that’s been in the patent office for an extended period [of] time”—intentionally or otherwise. (*Id.*).

[FF 22] Mr. Harvey also used this language—referring to PMC as “a submarine” in a June 12, 1990 letter to a Harvard Business School professor. (DTX-88).

[FF 23] PMC’s patent strategy in the 1980s and early 1990s, as the record shows, had two main features. First, PMC would prosecute its patents serially, in the hopes of extending the temporal scope of protection far beyond the statutory term of seventeen years. PMC hoped to obtain protection for at least 30 to 50 years. Second, PMC would keep its patent portfolio hidden until after the claimed subject matter became widely adopted in the industry, and only then—after infringement was engrained and widespread—engage in licensing or enforcement efforts.

[FF 24] At trial, PMC suggested that it prosecuted its patents serially because it was a small company with limited resources. Nonetheless, in 1995, PMC—having deliberately chosen to delay monetizing its patent portfolio—mounted an all-out prosecution campaign. PMC would

file over 300 applications on the 1981 and 1987 specifications and prosecute them—in parallel—over the decades that would follow.

D. PMC’s “GATT Bubble” Applications

[FF 25] In 1995, a change in the law threatened to derail PMC’s plan. The Uruguay Round Agreements Act (“URAA”), passed by Congress and signed into law by President Clinton in 1994, joined the United States into the General Agreement on Tariffs and Trade (“GATT”). URAA, Pub. L. 103–465, 108 Stat. 4809 (Dec. 8, 1994). As part of GATT, Congress amended 35 U.S.C. § 154 to provide for patent terms that end 20 years from the filing date of the earliest application to which priority is claimed. URAA § 532; *see* 35 U.S.C. § 154(a)(2). In amending the statutory patent terms, Congress both brought the United States into accord with its international counterparts and foreclosed the serial prosecution strategy that allowed for outsized temporal expansion of patent rights. The United States Patent and Trademark Office (“PTO”) determined that GATT rules would apply to any patent application filed on or after June 8, 1995. *See* 37 C.F.R. § 1.129.

[FF 26] The PTO received and processed over 50,000 patent applications in the nine days prior to the June 8, 1995 “GATT Deadline”—approximately 45,000 more applications than would have normally been filed. (Stip. 31). This increase in applications is often referred to in literature as the “GATT Bubble.” *See Hyatt*, 998 F.3d at 1352.

[FF 27] In the three months leading up to the June 8, 1995 GATT Deadline, PMC filed 328 continuation applications claiming priority to the 1981 ’510 application or the 1987 ’096 application. (Bench Tr. 24:15–21; DTX-274 at 1–2). Of these applications, 326—all but two—were filed in the four weeks preceding the GATT Deadline. (Stips. 29–30).

[FF 28] According to deposition testimony from Mr. Harvey, PMC timed these applications specifically to get the benefit of the pre-GATT rules. (July 11, 2013 Harvey Dep. Tr. 297:2–13, Dkt. No. 638-16).

[FF 29] An internal memo drafted by Mr. Scott and dated July 15, 2015 confirms this purpose. (DTX-274 at 1). The memo states that

PMC’s reason for filing some 300–odd applications was that the Patent and Trademark Office (“PTO”) has issued guidance in 37 C.F.R. § 129(b) to the effect that a Restriction Requirement could be imposed in any pre-GATT filed application with numerous claims if the failure to present those claims earlier was the result of the applicants’ conduct. The imposition of such a Restriction Requirement could cause PMC to lose rights in many of its valuable distinct inventions.

(DTX-274 at 2).

[FF 30] The applications based on the 1987 specification each contained nearly 600 pages. (*See, e.g.*, DTX-1560 at 1 (tallying 557 pages of specification, 1 page of claims, a 1 page abstract, and 22 drawing sheets)).

[FF 31] Each of the applications was originally filed with a single claim directed to a “method of controlling the communication of television programming at a television transmission station.” (Stip. 29). Over time, PMC would greatly increase the total number of claims. In Mr. Scott’s estimate, at one point there were about 6,000 claims pending. (Bench Tr. 218:6–22). A patent examiner, in an Office Action dated December 10, 1996, estimated the number to be closer to “between 10,000 and 20,000 claims.” (DTX-1494 at 792 ¶ 3). Mr. Scott admitted that at least some of these claims were merely “placeholder” claims. (Bench Tr. 224:13–19).

[FF 32] For instance, PMC submitted identical claims in different applications pending at the same time. One example is the applications numbered 08/480,484 and 08/488,620—both filed on June 7, 1995—which contain this word-for-word identical claim 2:

08/480,484 application claim 2 (June 7, 1995 preliminary amendment)	08/488,620 application claim 2 (June 7, 1995 preliminary amendment)
<p>A method for displaying television program information with a locally generated video overlay at a receiver station having a processor, a decoder, a storage device and a video overlay generator, said method comprising the steps of:</p> <p style="padding-left: 40px;">receiving a signal that identifies a television program presentation at a receiver station;</p> <p style="padding-left: 40px;">decoding said signal from said step of receiving to extract information about said television program presentation;</p> <p style="padding-left: 40px;">processing said information from aid step of decoding to format said information to provide an organized presentation of said information;</p> <p style="padding-left: 40px;">generating a video overlay from said organized information from said step of processing; receiving said television program that is associated with said signal in said step of decoding;</p> <p style="padding-left: 40px;">combining said video overlay from said step of generating with said television program from said step of receiving said television program; and</p> <p style="padding-left: 40px;">outputting said combined signal from said receiver station to a television display to display said combined image showing said video overlay containing data associated with programming presentation and said television program.</p> <p>(DTX-1560 at 600–01)</p>	<p>A method for displaying television program information with a locally generated video overlay at a receiver station having a processor, a decoder, a storage device and a video overlay generator, said method comprising the steps of:</p> <p style="padding-left: 40px;">receiving a signal that identifies a television program presentation at a receiver station;</p> <p style="padding-left: 40px;">decoding said signal from said step of receiving to extract information about said television program presentation;</p> <p style="padding-left: 40px;">processing said information from aid step of decoding to format said information to provide an organized presentation of said information;</p> <p style="padding-left: 40px;">generating a video overlay from said organized information from said step of processing; receiving said television program that is associated with said signal in said step of decoding;</p> <p style="padding-left: 40px;">combining said video overlay from said step of generating with said television program from said step of receiving said television program; and</p> <p style="padding-left: 40px;">outputting said combined signal from said receiver station to a television display to display said combined image showing said video overlay containing data associated with programming presentation and said television program.</p> <p>(DTX-1566 at 598–99)</p>

[FF 33] PMC also submitted to the PTO thousands of prior art references—many of which bore little relevance to disclosed inventions. (*See, e.g.*, DTX-3 at 1–33 (References Cited);

Bench Tr. 224:20–225:6). In one instance, a patent examiner commented on “the unusually large number of references cited” and noted “the failure of applicant to point out why such a large number of references is warranted.” (DTX-1494 at 900 ¶ 6). Several foreign-language references were disclosed with no statement of relevance or translation. (*Id.*). Further, PMC disclosed numerous references “subsequent to applicant’s latest effective filing date of 9/11/87”—ostensibly rendering them not prior art—and the examiner noted that “the relevancy of these references is unclear.” (*Id.*). And several references had no apparent relationship to the inventive subject matter, such as:

US Patent # 33,189 directed toward a beehive, GB 1565319 directed toward a chemical compound, a cover sheet with only the word “ZING”, a computer printout from a library search with the words “LST” on it and a page of business cards including that of co-inventor James Cuddihy, among others.

(*Id.*). These issues were not unique to the ’091 patent’s application, but were indeed systemic issues throughout the prosecution of the whole patent family. (*See, e.g.*, DTX-1560 at 819; DTX-1566 at 778; DTX-1568 at 856; PTX-1197 at 816; PTX-1199 at 863).

[FF 34] Mr. Harvey admitted in a deposition that there were many references disclosed to the patent office that were wholly unrelated to the subject matter of his patents. (April 29, 2016 Harvey Dep. Tr. 462:5–10, 462:13–14, 464:2–8, Dkt. No. 638-11).

[FF 35] The PTO issued double-patenting rejections in several instances between 1996 and 1997. (*See, e.g.*, DTX-1494 at 792, 806, 893; DTX-1560 at 716, 818; DTX-1566 at 777; DTX-1568 at 855; PTX-1197 at 815; PTX-1199 at 746, 862). These included rejections premised on the grounds articulated in *In re Schneller*, 379 F.2d 350 (C.C.P.A. 1968). In this context, the PTO noted that “an analysis of all claims in the 329 related co-pending applications would be an *extreme*

burden on the Office requiring *millions of claim comparisons.*” (DTX-1494 at 898–99 (emphases added)).⁵

[FF 36] Between 1997 and 1998, the PTO suspended prosecution of the majority of PMC’s applications. (Stip. 32; *see, e.g.*, DTX-1494 at 886–87). Prosecution was re-opened in 1998, with subsequent office actions excluding *In re Schneller* rejections but nonetheless maintaining double-patenting rejections, including OTDP rejections. (*See, e.g.*, DTX-1494 at 891–912).

[FF 37] This next round of office actions—dated July 7, 1998 in the case of the ’091 patent—imposed an “Administrative Requirement” on PMC in an attempt to cure the double-patenting issues:

In order to resolve the conflict between applications, applicant is required to either:

(1) file terminal disclaimers in each of the related 329 applications terminally disclaiming each of the other 329 applications, or;

(2) provide an affidavit attesting to the fact that all claims in the 329 applications have been reviewed by applicant and that no conflicting claims exists between the applications. Applicant should provide all relevant factual information including the specific steps taken to insure that no conflicting claims exist between the applications, or;

(3) resolve all conflicts between claims in the above identified 329 applications by identifying how all the claims in the instant application are distinct and separate inventions from all the claims in the above identified 329 applications.

(Stip. 45; DTX-1494 at 899).

[FF 38] PMC maintained that the Administrative Requirement was improper. (*See, e.g.*, DTX-1494 at 946–47).

⁵ References to 329 applications include the 328 applications filed before June 8, 1995 and the parent application to which they claimed priority. (*See, e.g.*, DTX-1494 at 942).

[FF 39] In a series of interviews in 1998 and 1999, PMC met with PTO examiners to chart a path forward. (*See* PTX-1199 at 1299–1305, ¶¶ 2–5). PMC eventually agreed to consolidate its applications into 56 subject-matter categories. (PTX-1199 at 1375–88). For each category and priority date (either 1981 or 1987), PMC designated one “A” application and one “B” application. The “A” applications would be amended to include any claims the PTO agreed were allowable (pending resolution of double-patenting issues), which PMC and the PTO would prosecute to issuance. Any claims for which the patentability was disputed would be moved to the corresponding “B” application, which could either be appealed or abandoned. Prosecution of “B” applications would be held in abeyance until the issuance of the corresponding “A” application as a potential application for any claims not allowed. The remaining applications not designated “A” or “B” would be expressly abandoned. (Stip. 50; PTX-1199 at 1398; Bench Tr. 193:10–194:9).

[FF 40] This approach notwithstanding, the PTO continued to grapple with significant obstacles in advancing prosecution of PMC’s patent applications.

[FF 41] In one instance, on January 18, 2001, an examiner in the case of 08/449,413 (the “413 application”) issued a notice of abandonment accusing PMC and its prosecution counsel, Mr. Scott, of misconduct and prosecution laches. (Stip. 47; PTX-1197 at 917–1543). The examiner, William Luther, stated that PMC’s prosecution strategy had burdened the PTO and caused “unjustifiable and prejudicial delay.” (PTX-1197 at 928). The PTO ultimately vacated and withdrew the notice of abandonment, noting that Mr. Luther’s allegations were “unrelated to the issue of patentability” and “were not made pursuant to a duty of the Examiner imposed by law.” (PTX-1197 at 1687–89).⁶

⁶ As this notice of abandonment was ultimately vacated and withdrawn, the Court considers it only to state the personal opinions of Examiner Luther rather than the positions of the PTO, and weighs this fact accordingly. The Court notes that the result would be the same in this case even without considering Examiner Luther’s opinions. It is also worth

[FF 42] Another example is an office action dated July 31, 2002 in the case of application 08/474,145 (the “’145 application”). (DTX-1568 at 1018). The ’145 application was the “A” application related to the ’091 patent. In the July 31, 2002 office action, the examiner noted that “many of the same issues have been raised in different ones of the many copending applications. In at least some cases, these issues appear to have been handled and addressed inconsistently between applications.” (DTX-1568 at 1020). The examiner listed several examples of these issues.

[FF 43] The office action stated that the “examiner/Office was unquestionably misled by the many statements made by applicant” regarding whether claims were entitled to a priority date of 1981 or 1987 depending on the support in the respective disclosures. (DTX-1568 at 1020–21). The examiner characterized PMC’s various arguments and submissions as “straw men” (DTX-1568 at 1026), “lame” (DTX-1568 at 1027), “repugnant” (DTX-1568 at 1028), “NONSENSE” (DTX-1568 at 1029 (emphasis in original)), “[c]learly” having “a conflict between two . . . positions” (DTX-1568 at 1030), “mystify[ing]” (DTX-1568 at 1030), “careless[]” (DTX-1568 at 1031), “an unnecessary drain on already limited PTO resources” (DTX-1568 at 1031), “absurd and wholly unsupportable” (DTX-1568 at 1035), a “tapestry which . . . falls apart at the slightest touch” (DTX-1568 at 1037), “CLEARLY WRONG” (DTX-1568 at 1043 (emphasis in original)), “distort[ing]” the law (DTX-1568 at 1046), “contorted” (DTX-1568 at 1050), “difficult to understand” (DTX-1568 at 1049), “read[ing] like the directions to a treasure hunt” (DTX-1568 at 1049), and “like ships passing in the night in the same ocean, but not necessarily sailing in the same direction” (DTX-1568 at 1049), among other choice words.

noting that the Federal Circuit subsequently confirmed that laches is indeed a ground for rejection. *In re Bogese*, 303 F.3d 1362, 1367–68 (Fed. Cir. 2002).

[FF 44] The examiner further commented that the “Office continues to struggle in its efforts to make [§ 112 ¶ 1] determinations for the 10,000 or so pending amended claims.” The examiner noted that “when applicant has been asked to identify ‘*precisely what is being claimed*’, applicant has declined to provide such showings”—instead contending that the responsibility was solely the PTO’s. (DTX-1568 at 1047).

[FF 45] Nothing in the record indicates that the July 31, 2002 office action was ever withdrawn, vacated, or otherwise repudiated by the PTO.

[FF 46] Between April 2003 and January 2004, the PTO granted eleven reexaminations on seven of PMC’s then-issued patents. (Stip. 54). As a result, the PTO stayed examination of PMC’s pending applications. The stay would last approximately six years. (Bench Tr. 202:20–221:6).

[FF 47] Between 2005 and 2008, PMC corresponded with senior PTO officials, including the Director of the PTO, in an attempt to expedite resolution of the reexaminations or otherwise lift the stay of prosecution. (Stips. 56–58; PTX-1199 at 5425–916; PTX-1180 at 1–69; PTX-1181 at 1–10; PTX-1185; Bench Tr. 230:13–232:6). In 2009, the PTO agreed to reopen prosecution of PMC’s applications. (Bench Tr. 204:1–8).

[FF 48] After prosecution reopened, the PTO began issuing patents in 2010, and has continued to do so. As of April 22, 2020, a total of 101 patents had issued to PMC claiming priority to its 1981 and 1987 specifications. (Stip. 96).

E. Prosecution History of the ’091 Patent

[FF 49] The ’091 patent issued from U.S. Patent Application No. 08/485,507 (the “’507 application”), claiming priority to the 1987 ’096 application. The ’507 application was filed on June 7, 1995 with one claim. (Stip. 35; DTX-3; DTX-1494). Contemporaneous with the filing,

PMC filed a preliminary amendment canceling application claim 1 and adding application claim 2. (Stip. 38; DTX-1494 at 604–05). A year later, PMC filed another amendment cancelling application claim 2 and adding application claims 3–9. (Stip. 39; DTX-1494 at 779–83).

[FF 50] In December of 1996, the PTO examiner issued the first office action on the '507 application, rejecting all pending claims on several grounds including double patenting. (Stip. 40; DTX-1494 at 784–822). The examiner explained that “[t]he subject matter claimed in the instant application is fully disclosed in the referenced copending applications and would be covered by any patent issued on that *[sic]* copending applications,” noting that “there is no apparent reason why applicant would be prevented from presenting claims . . . in the other copending applications.” (DTX-1494 at 806). The examiner also issued rejections under 35 U.S.C. § 112 ¶ 2 (pre-AIA), noting that “the size of applicants’ disclosure with its numerous possible implementations is contributing to the problem[.]” (DTX-1494 at 809).

[FF 51] Following the December 1996 office action, PMC submitted an information disclosure statement listing 18 additional pages of prior art references. (DTX-1494 at 828–46). It also requested a three-month extension on its response to the office action. (DTX-1494 at 847, 885). PMC then responded to the office action by amending the seven pending claims (application claims 3 through 9) and further expanding the claim set by adding 23 additional claims (application claims 10 through 32). (DTX-1494 at 847–56).

[FF 52] On July 7, 1998, the PTO issued its second office action on the '507 application, rejecting all pending claims. (DTX-1494 at 891). The examiner issued double-patenting rejections, citing “clear evidence that such conflicting claims exist between the 329 related co-pending applications[.]” (DTX-1494 at 892–99). The examiner noted that “an analysis of all claims in the 329 related co-pending applications would be an extreme burden on the Office requiring millions

of claim comparisons.” (DTX-1494 at 899). For this reason, the examiner imposed the “Administrative Requirement” described above, requiring PMC to either (1) file terminal disclaimers in all applications; (2) provide an affidavit that there are no conflicting claims between the applications; or (3) resolve all conflicts by explaining how the claims in the pending applications are separate and distinct. (DTX-1494 at 899; *see also* FF 37).

[FF 53] In the same office action, the examiner commented on the “unusually large number of references cited”—2,200 in the initial application and a further 645 in a supplemental information disclosure statement. (DTX-1494 at 900). Among these references, the examiner noted, were foreign language references “where there is no statement of relevance or no translation” as required by 37 C.F.R. 1.98; “numerous references” that post-dated the latest effective filing date in 1987; and “numerous references” of little-to-no relevance, including a Civil War-era patent for a beehive, a British patent directed to a chemical compound, the word “ZING,” a computer printout from a library search with the words “LST,” and a page of business cards. (DTX-1494 at 900).

[FF 54] After the 1998 and 1999 meetings between PMC and the PTO examiners, the ’507 application was designated a “B” application, corresponding to the ’145 “A” application. (Stips. 46, 51). On May 9, 2000, PMC requested cancellation of 28 of the 29 pending claims in the ’507 “B” application and amended the one remaining claim. (DTX-1491 at 926).

[FF 55] In a March 21, 2001 communication, the PTO informed PMC that it deemed PMC’s response to the earlier office action “deficient” because it failed to comply with the Administrative Requirement. (DTX-1494 at 933). Contrary to PMC’s objections, the examiner reiterated that the Administrative Requirement merely required PMC to undertake a necessary precondition to examination by ensuring that claims are presented properly. The examiner stated,

“[i]t is not solely the burden of the Office, as the applicants imply, to review each of the over ten thousand of the applicants’ claims and determine, for each claim, whether the applicants are violating their regulatory duties of knowledge of claims and disclosure or elimination of conflicting material.” (DTX-1494 at 934–35).

[FF 56] PMC responded to the March 21, 2001 communication, explaining (among other things) that the ’507 application was a “B” application according to the plan PMC devised with the PTO. (DTX-1494 at 940–67). PMC then requested that the ’507 application be held in abeyance pending prosecution of the corresponding “A” application. (DTX-1494 at 27).

[FF 57] On June 18, 2002, the PTO accepted PMC’s arguments and agreed to hold the ’507 “B” application in abeyance for six months pending the outcome of the corresponding ’145 “A” application. (DTX-1494 at 973–75). The examiner directed PMC to make an inquiry into the status of the application upon expiration of the six-month suspension. (*Id.*). There is no record of such inquiry in the ’507 application prosecution history. The next communication from the PTO, dated January 6, 2005, was another six-month suspension, also directing PMC to make a status inquiry upon expiration of the suspension. (DTX-1494 at 976–77).

[FF 58] Meanwhile, the claims that eventually issued from the ’507 “B” application were being prosecuted as part of the ’145 “A” application. The ’145 application, like the ’507 application, was initially prosecuted with “placeholder” claims. (DTX-1568 at 592, 599). In July of 1997, PMC added two more claims for a total of three. (DTX-1568 at 813). Several more dependent claims were added in June of 1998 (DTX-1568 at 865).

[FF 59] A claim amendment dated May 9, 2000, added a new application claim 22:

'145 application claim 22 (May 9, 2000 amendment)
<p>A method of enabling a programming presentation at a receiver station, said receiver station having a receiver for receiving at least some of an information transmission, at least one enabling device operatively connected to said receiver, a processor operatively connected to said at least one enabling device, and an output device operatively connected to said at least one enabling device, said method comprising the steps of:</p> <ul style="list-style-type: none">receiving said information transmission from one of a local source and a remote source, said information transmission containing disabled information;detecting the presence of an instruct-to-enable signal, said instruct-to-enable signal designating enabling information;passing said instruct-to-enable signal to said processor;modifying a fashion in which said receiver station locates said enabling information in response to said instruct-to-enable signal;locating said enabling information based on said step of modifying a fashion;enabling said disabled information based on said step of locating said enabling information; andoutputting said programming presentation based on said step of enabling said disabled information. <p>(DTX-1568 at 921–22)</p>

[FF 60] PMC amended '145 application claim 22 again on March 15, 2002 as follows:

<p>'145 application claim 22 (May 9, 2000 amendment)</p>	<p>'145 application claim 22 (March 15, 2002 amendment)</p>
<p>A method of enabling a programming presentation at a receiver station, said receiver station having a receiver for receiving at least some of an information transmission, at least one enabling device operatively connected to said receiver, a processor operatively connected to said at least one enabling device, and an output device operatively connected to said at least one enabling device, said method comprising the steps of:</p> <p style="padding-left: 40px;">receiving said information transmission from one of a local source and a remote source, said information transmission containing disabled information;</p> <p style="padding-left: 40px;">detecting the presence of an instruct-to-enable signal, said instruct-to-enable signal designating enabling information;</p> <p style="padding-left: 40px;">passing said instruct-to-enable signal to said processor;</p> <p style="padding-left: 40px;">modifying a fashion in which said receiver station locates said enabling information in response to said instruct-to-enable signal;</p> <p style="padding-left: 40px;">locating said enabling information based on said step of modifying a fashion;</p> <p style="padding-left: 40px;">enabling said disabled information based on said step of locating said enabling information; and</p> <p style="padding-left: 40px;">outputting said programming presentation based on said step of enabling said disabled information.</p> <p>(DTX-1568 at 921–22)</p>	<p>A method of enabling a programming presentation at a receiver station, said receiver station having a receiver for receiving at least some of an information transmission, at least one enabling device operatively connected to said receiver, a processor operatively connected to said at least one enabling device, and an output device operatively connected to said at least one enabling device, said method comprising the steps of:</p> <p style="padding-left: 40px;">receiving said an information transmission from at least one of a local source and a remote source, said information transmission containing including disabled information;</p> <p style="padding-left: 40px;">detecting the presence of an instruct-to-enable signal, said instruct-to-enable signal designating enabling information;</p> <p style="padding-left: 40px;">passing said instruct-to-enable signal to said a processor;</p> <p style="padding-left: 40px;">modifying a fashion in which said receiver station locates said enabling information in response to said instruct-to-enable signal;</p> <p style="padding-left: 40px;">locating said enabling information based on said step of modifying a fashion;</p> <p style="padding-left: 40px;">enabling said disabled information based on said step of locating said enabling information; and</p> <p style="padding-left: 40px;">outputting said programming presentation based on said step of enabling said disabled information.</p> <p>(DTX-1568 at 978, 990)</p>

[FF 61] PMC amended '145 application claim 22 again on February 4, 2003 as follows:

'145 application claim 22 (March 15, 2002 amendment)	'145 application claim 22 (February 4, 2003 amendment)
<p>A method of enabling a programming presentation at a receiver station, said method comprising the steps of:</p> <ul style="list-style-type: none"> receiving an information transmission from at least one of a local source and a remote source, said information transmission including disabled information; detecting the presence of an instruct-to-enable signal, said instruct-to-enable signal designating enabling information; passing said instruct-to-enable signal to a processor; modifying a fashion in which said receiver station locates said enabling information in response to said instruct-to-enable signal; locating said enabling information based on said step of modifying a fashion; enabling said disabled information based on said step of locating said enabling information; and outputting said programming presentation based on said step of enabling said disabled information. <p>(DTX-1568 at 978)</p>	<p>A method of enabling—a <u>decrypting</u> programming presentation at a receiver station, said method comprising the steps of:</p> <ul style="list-style-type: none"> receiving an information transmission from at least one of a local source and a remote source, said information transmission including disabled <u>encrypted</u> information; detecting the presence of an instruct-to-enable signal, said instruct-to-enable signal designating enabling information; passing said instruct-to-enable signal to a processor; modifying <u>determining</u> a fashion in which said receiver station locates said enabling information in response to <u>a first decryption key by processing</u> said instruct-to-enable signal; locating said enabling information <u>first decryption key</u> based on said step of modifying a fashion <u>determining</u>; enabling <u>decrypting</u> said disabled <u>encrypted</u> information based on said step of locating said enabling information <u>using said first decryption key</u>; and outputting said programming presentation based on said step of enabling said disabled information <u>decrypting</u>. <p>(DTX-1568 at 1132, 1177)</p>

The February 4, 2003 amendment was the first time that encryption, decryption, or decryption keys were a part of this claim.

[FF 62] Beginning on January 6, 2005, the PTO suspended prosecution of both the '145 application and the '507 application, initially for six months, pending reexamination of PMC's already issued patents. (DTX-1494 at 974; DTX-1568 at 1228). The suspensions were renewed several times. (E.g., DTX-1494 at 985–86, 988–89; DTX-1568 at 1238, 1240–41).

[FF 63] Prosecution had reopened by 2010. Over a series of interviews in 2010, application claim 22 was amended significantly. (DTX-1568 at 1250–74). The ’145 “A” application issued as United States Patent No. 7,992,169 on August 2, 2011. (Stip. 70; DTX-1568 at 1840).

[FF 64] On April 11, 2011—prosecution of the ’507 application having also reopened—PMC amended the ’507 application, cancelling all claims and adding 31 new claims. Through this amendment, PMC sought to claim in the “B” application subject matter that was not allowed in the corresponding “A” application. (DTX-1494 at 990–1006). PMC told the PTO that these “B” claims had “additional amendments that Applicants believe place the claims in condition for allowance.” (DTX-1494 at 993). New ’507 application claim 45 was identical to ’145 application claim 22 as amended on February 4, 2003:

’145 application claim 22 (February 4, 2003 amendment)	’507 application claim 45 (April 11, 2011 amendment)
<p>A method of decrypting programming at a receiver station, said method comprising the steps of:</p> <ul style="list-style-type: none"> receiving an information transmission including encrypted information; detecting presence of an instruct-to-enable signal; passing said instruct-to-enable signal to a processor; determining a fashion in which said receiver station locates a first decryption key by processing said instruct-to-enable signal; locating said first decryption key based on said step of determining; decrypting said encrypted information using said first decryption key; and outputting said programming based on said step of decrypting. <p>(DTX-1568 at 1132)</p>	<p>A method of decrypting programming at a receiver station, said method comprising the steps of:</p> <ul style="list-style-type: none"> receiving an information transmission including encrypted information; detecting presence of an instruct-to-enable signal; passing said instruct-to-enable signal to a processor; determining a fashion in which said receiver station locates a first decryption key by processing said instruct-to-enable signal; locating said first decryption key based on said step of determining; decrypting said encrypted information using said first decryption key; and outputting said programming based on said step of decrypting. <p>(DTX-1494 at 996)</p>

[FF 65] August 2, 2011, the PTO also issued an office action rejecting all 31 claims on ground such as double patenting and anticipation. (DTX-1494 at 1010–39). After additional amendments (DTX-1494 at 1162–80, 1187–1205), several additional disclosures (DTX-1494 at 1039–1162, 1218–47), and the execution of a terminal disclaimer (DTX-1494 at 1255–56), the PTO issued a notice of allowance on March 19, 2012. (DTX-1494 at 1331). Application claim 45, as amended, would issue as claim 13—the independent claim asserted in this action. (DTX-1494 at 1412).

'507 application claim 45 (April 11, 2011 amendment)	'091 patent claim 13 (Issued May 29, 2012)
<p>A method of decrypting programming at a receiver station, said method comprising the steps of:</p> <ul style="list-style-type: none"> receiving an information transmission including encrypted information; detecting presence of an instruct-to-enable signal; passing said instruct-to-enable signal to a processor; determining a fashion in which said receiver station locates a first decryption key by processing said instruct-to-enable signal; locating said first decryption key based on said step of determining; decrypting said encrypted information using said first decryption key; and outputting said programming based on said step of decrypting. <p>(DTX-1494 at 996)</p>	<p>A method of decrypting programming at a receiver station, said method comprising the steps of:</p> <ul style="list-style-type: none"> receiving an <u>encrypted digital</u> information transmission including encrypted information; detecting <u>in said encrypted digital information transmission the</u> presence of an instruct-to-enable signal; passing said instruct-to-enable signal to a processor; determining a fashion in which said receiver station locates a first decryption key by processing said instruct-to-enable signal; locating said first decryption key based on said step of determining; decrypting said encrypted information using said first decryption key; and outputting said programming based on said step of decrypting. <p>(DTX-1568 at 1132)</p>

[FF 66] The '091 patent issued from the '507 application on May 29, 2012. (DTX-1494 at 1428).

[FF 67] To summarize: the '145 application and '507 application were both filed June 7, 1995 with placeholder claims. Sometime around 1998 or 1999, the '145 application was designated an “A” application and the '507 application was designated the corresponding “B” application. The predecessor of asserted independent claim 13 was first submitted to the PTO (with materially different subject matter) in May of 2000, five years after filing, as application claim 22 of the '145 “A” application. In 2003, nearly three years later, and eight years after filing, application claim 22 was amended to claim encryption and decryption for the first time. Prosecution of both applications was suspended until around 2009 or 2010. In 2011, the claim was amended significantly in the '145 application—which then issued as a patent—with the unamended version moved to the '507 application as application claim 45. With minor amendments, the claim issued as independent claim 13 in May of 2012.

F. Apple’s FairPlay Technology

[FF 68] FairPlay, the accused technology in this suit, was described at trial as “content protection and integrity verification technology.” In essence, FairPlay is software that verifies that the user of an Apple device cannot copy or make unauthorized use of downloaded content, such as songs, apps, or movies. (Jury Tr. 717:7–17).

[FF 69] Encryption of decryption keys is critical to FairPlay’s operation. As Apple engineer and corporate representative Roger Pantos explained:

[T]he goal was security. And so we had to be able to secure the content, and as you’ve heard earlier this week, that means encrypting the content and controlling access to the decryption key. The decryption key, therefore, had to be kept secure itself. And that was why we decided we’re going to encrypt it and keep it encrypted in the private -- somewhere private, and so that became a private part of the security information.

(Jury Tr. 728:23–729:5).

[FF 70] Specifically, FairPlay focused on key management. The FairPlay Next Generation document, a white paper that is representative of the accused technology, explains the importance of key management:

Cryptography is traditionally focused on protecting data in transit across a network. In this threat model the communication is between two mutually trusted parties; the players are protected by cryptography from the prying eyes of the thief.

For digital content protection, the paradigm has shifted. Some of the players are no longer trusted, and may actually be the attacker. E.g., the end-user that legally buys music from the music store can be an attacker. In addition, with the current effectiveness of network penetration attacks, a third player may have access to one of the player's computers.

When assessing the security of a content protection system (or by looking at past attacks), the weakest link is not the encrypted data, but the key management and handling, the software before the decryption of the data.

(DTX-225 at 4; Stip. 74).

[FF 71] Apple began developing FairPlay in the early 2000s. (Stip. 73; Jury Tr. 684:1–4). FairPlay was launched together with the Apple Music store in 2003. (Jury Tr. 684:21–23, 719:13–15; Stips. 75–76). Apple has continued to develop and improve FairPlay since its launch. FairPlay was integrated into Apple's App Store in 2007. (Jury Tr. 105:19–106:15; 686:11–16, 688:5–14, 690:22–691:11; Stips. 75, 77).

[FF 72] The FairPlay Next Generation document, which was representative of the technology in the FairPlay system found by the jury to infringe the '091 patent, was created by May 2005. (Stip. 74; DTX-225). The FairPlay system has protected content downloaded from Apple's iTunes and App Stores since no later than 2005 and 2007, respectively. (Stip. 78). The accused functionalities of FairPlay have been the same at all times while the '091 patent has been in force. (Stip. 79).

[FF 73] The jury found that Apple’s FairPlay infringed at least one of claims 13, 14, 15, and 16 of the ’091 patent. (Dkt. No. 572).

[FF 74] PMC first contacted Apple in 2008. (Bench Tr. 47:4–48:3; Jury Tr. 254:21–255:4; DTX-108; Stip. 80). PMC and Apple corresponded between 2008 and 2011 on the topics of PMC’s patent portfolio. (Stips. 80–87). In July of 2011, PMC provided several claim charts to Apple explaining how PMC believed that Apple’s services, including iTunes and iCloud, practiced five of PMC’s patents. The ’091 patent, which had not yet issued, was not identified. (Stip. 88). PMC did not identify the ’091 patent to Apple prior to filing suit. (Stip. 97).

II. CONCLUSIONS OF LAW

[CL 1] “In an action tried on the facts without a jury . . . , the court must find the facts specially and state its conclusions of law separately.” Fed. R. Civ. P. 52(a)(1). “If a party has been fully heard on an issue during a nonjury trial and the court finds against the party on that issue, the court may enter judgment against the party on a claim or defense that, under the controlling law, can be maintained or defeated only with a favorable finding on that issue.” Fed. R. Civ. P. 52(c).

[CL 2] The purpose of these findings is to “afford[] . . . a clear understanding of the ground or basis of the decision of the trial court.” *S. S. Silberblatt, Inc. v. U.S. for Use & Benefit of Lambert Corp.*, 353 F.2d 545, 549 (5th Cir. 1965) (internal quotation marks omitted); *see also Schlesinger v. Herzog*, 2 F.3d 135, 139 (5th Cir. 1993) (explaining that trial courts need not “recite every piece of evidence” or “sort through the testimony of . . . dozen[s] [of] witnesses”).

[CL 3] In making a particular finding, the district court “does not . . . draw any inferences in favor of the non-moving party and . . . [instead] make[s] a determination in accordance with its own view of the evidence.” *Fairchild v. All Am. Check Cashing, Inc.*, 815 F.3d 959, 964 n.1 (5th Cir. 2016) (internal quotation marks omitted). However, a district court still must

arrive at each of its factual determinations based on the applicable burden of proof. *In re Medrano*, 956 F.2d 101, 102 (5th Cir. 1992) (reversing the district court because it applied the preponderance of the evidence standard rather than the clear and convincing standard in making its factual determinations under Rule 52).

A. Prosecution Laches

[CL 4] Prosecution laches is an equitable affirmative defense to patent infringement. *Hyatt*, 998 F.3d at 1359–60; *Cancer Research Tech. Ltd. v. Barr Labs., Inc.*, 625 F.3d 724, 729 (Fed. Cir. 2010). If found, prosecution laches may “render a patent unenforceable when it has issued only after an unreasonable and unexplained delay in prosecution that constitutes an egregious misuse of the statutory patent system under a totality of the circumstances.” *Hyatt*, 998 F.3d at 1360 (quoting *Cancer Research*, 625 F.3d at 728).

[CL 5] The Federal Circuit recently explained that “the doctrine of prosecution laches places an additional, equitable restriction on patent prosecution conduct beyond those imposed by statute or PTO regulation.” *Hyatt*, 998 F.3d at 1366. “An applicant must therefore not only comply with the statutory requirements and PTO regulations but must also prosecute its applications in an equitable way that avoids unreasonable, unexplained delay that prejudices others.” *Id.*

[CL 6] Prosecution laches as a defense to infringement requires proof of two elements: (a) that the patentee’s delay in prosecution was unreasonable and inexcusable under the totality of the circumstances; and (b) that the accused infringer or the public suffered prejudice attributable to the delay. *Hyatt*, 998 F.3d at 1362 (citing *Cancer Research*, 625 F.3d at 728–29).

[CL 7] To establish prejudice, an accused infringer must show evidence of intervening rights, in the sense that “either the accused infringer or others invested in, worked on, or used the claimed technology during the period of delay.” *Cancer Research*, 625 F.3d at 731.

[CL 8] This Court has previously applied the clear-and-convincing-evidence standard when the enforceability of an issued patent is challenged for prosecution laches. *SynQor, Inc. v. Artesyn Techs., Inc.*, No. 2:07-cv-497, 2011 WL 2729214, at *8 (E.D. Tex. July 11, 2011); *Centocor Ortho Biotech, Inc. v. Abbott Labs.*, 669 F. Supp. 2d 756, 771 (E.D. Tex. 2009), *rev'd on other grounds*, 636 F.3d 1341, 1353 (Fed. Cir. 2011). This is consistent with the presumption of validity, and with the application of the clear-and-convincing-evidence standard to other invalidity and unenforceability defenses. *See* 35 U.S.C. § 282(a) (presumption of validity), § 282(b)(1) (unenforceability is a defense to patent infringement); *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1358–59 (Fed. Cir. 1984) (the burden under § 282 “is constant and never changes and is to convince the court of invalidity by clear evidence”), *abrogated on other grounds, Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1290–91 (Fed. Cir. 2011) (abrogating the “sliding scale” approach to inequitable conduct but nonetheless maintaining the clear-and-convincing-evidence standard); *see also Radio Corp. of Am. v. Radio Eng'g Labs.*, 293 U.S. 1, 8 (1934) (Cardozo, J.) (“[O]ne otherwise an infringer who assails the validity of a patent fair upon its face bears a heavy burden of persuasion, and fails unless his evidence has more than a dubious preponderance.”); *contra Hyatt*, 998 F.3d at 1370–71 (applying a preponderance-of-the-evidence standard in a *de novo* civil action to obtain a patent under § 145). The Federal Circuit has also confirmed that the PTO may issue laches rejections during prosecution. *In re Bogese*, 303 F.3d 1362, 1367–68 (Fed. Cir. 2002). Where it has not, it is presumed to have acted correctly. Consistent with these principles, the Court applies the clear-and-convincing-evidence standard to prosecution laches when raised a defense to patent infringement.

[CL 9] The Federal Circuit also held in *Hyatt* that “in the context of a § 145 action, the PTO must generally prove intervening rights to establish prejudice, but an unreasonable and

unexplained prosecution delay of six years or more raises a presumption of prejudice, including intervening rights.” *Hyatt*, 998 F.3d at 1370. Apple attempts to invoke this presumption to its benefit. (*See, e.g.*, Dkt. No. 639 at 48). The Court is not persuaded that this presumption should apply when prosecution laches is raised as a defense to infringement. The Federal Circuit’s holding in *Hyatt* is clearly limited to “the context of a § 145 action.” *Hyatt*, 998 F.3d at 1370. In a § 145 action, the district court is required to make *de novo* factual findings, without any deference to the PTO or presumptions of administrative correctness. *See Kappos v. Hyatt*, 566 U.S. 431, 444 (2012). The case cited by the Federal Circuit in *Hyatt* for the presumption of prejudice also arose in the context of an unreasonable delay in *filing suit*—a charge that does not impugn the patentee’s *prosecution* conduct. *See Wanlass v. Gen. Elec. Co.*, 148 F.3d 1334, 1337 (Fed. Cir. 1998). In contrast, the PTO can issue prosecution laches rejections, *Bogese*, 303 F.3d at 1367–68, and when prosecution laches is raised as a defense to infringement, the accused infringer challenges the PTO’s correctness in not rejecting the patent. An issued patent, whose enforceability is challenged for prosecution laches, remains clothed in the presumptions of validity and enforceability. Accordingly, the Court does not find it appropriate to shift the burden on the issue of prejudice when prosecution laches is raised as a defense to infringement. The Court is persuaded that Apple should be held to the clear-and-convincing burden on both elements.

[CL 10] As discussed below, however, the Court is persuaded that Apple has met this burden on both elements.

B. PMC Engaged in an Unreasonable and Unexplained Delay

[CL 11] Whether an applicant’s delay is unreasonable is a fact-intensive inquiry that depends on the specific circumstances. *Hyatt*, 998 F.3d at 1366–67. Determinations of unreasonable delay are not limited to the specific patent application in question; rather, “an

examination of the totality of the circumstances, including the prosecution history of all of a series of related patents and overall delay in issuing claims, may trigger laches.” *Id.* at 1362; *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found., LP*, 422 F.3d 1378, 1385 (Fed. Cir. 2005) [“*Symbol I*”].

[CL 12] In *Symbol II*, the Federal Circuit gave non-exclusive examples of reasonable and unreasonable delays. Examples of reasonable delays include (i) filing a divisional application in response to a restriction requirement—even immediately before issuance of the parent application; (ii) refiling an application to present new evidence of an invention’s unexpected advantages; and (iii) refiling an application to add subject matter to attempt to support broader claims as the development of an invention progresses. *Symbol II*, 422 F.3d at 1385; *Hyatt*, 998 F.3d at 1361–62. The court noted that an applicant may refile an application for other reasons, “provided that such refiling is not unduly successive or repetitive.” *Symbol II*, 422 F.3d at 1385. In contrast, the court in *Symbol II* stated, “refiling an application solely containing previously-allowed claims for the business purpose of delaying their issuance can be considered an abuse of the patent system.” *Symbol II*, 422 F.3d at 1385.

[CL 13] There are no “firm guidelines” for when laches is triggered, and the determination is left to the district court’s consideration as a matter of equity. *Symbol II*, 422 F.3d at 1385. Yet, the Federal Circuit has found instructive two prior Supreme Court cases finding “patents unenforceable based on eight- and nine-year prosecution delays.” *Hyatt*, 998 F.3d at 1367 (citing *Woodbridge v. U.S.*, 263 U.S. 50, 53 (1923) (nine-and-a-half-year delay); *Webster Elec. Co. v. Splitdorf Elec. Co.*, 264 U.S. 463, 465 (1924) (eight-year delay)); *see also Bogese*, 303 F.3d at 1369 (eight-year delay); *Symbol II*, 422 F.3d at 1385 (citing *Woodbridge* and *Webster*).

[CL 14] The Federal Circuit addressed prosecution laches most recently—in an opinion issued three weeks before the bench trial in this case—in the context of a civil action to obtain a patent under 35 U.S.C. § 145. *Hyatt*, 998 F.3d at 1355–56. The Federal Circuit held that that PTO had met its burden to establish unreasonable and unexplained delay—reversing the district court’s conclusion otherwise. *Id.* at 1370–71. The Federal Circuit also held that a presumption of prejudice applied in the context of a § 145 action, and remanded the case to the district court to hear additional evidence and determine whether the patentee had rebutted the presumption. *Id.* at 1371–72.

[CL 15] While the procedural posture was different, the facts in *Hyatt* were remarkably similar to those in this case.

[CL 16] In *Hyatt*, the patentee (Mr. Hyatt) “bulk-filed” 381 patent applications during the “GATT Bubble.” *Hyatt*, 998 F.3d at 1353. The Federal Circuit noted that Mr. Hyatt’s 381 GATT Bubble applications were “the most of any filer.” *Id.* at 1367. PMC filed 328 applications—a number not far behind. (FF 27, 29).

[CL 17] Like PMC, Mr. Hyatt’s applications duplicated a small universe of earlier applications. In Mr. Hyatt’s case, “each one [was] a photocopy of one of 11 earlier parent applications.” *Hyatt*, 998 F.3d at 1353. Mr. Hyatt’s applications claimed priority to applications filed in the 1970s and 1980s, “which pre-date the [1995] applications by a range of 12 to 25 years.” *Id.* PMC’s 328 applications derive from two earlier applications, respectively filed in 1981 and 1987. These pre-date PMC’s 1995 applications by 8 to 14 years. (FF 27, 67).

[CL 18] The delay in *Hyatt* was also similar to PMC’s delay. Mr. Hyatt argued to the Federal Circuit that he “delayed only seven to 11 years to file the four applications at issue and between 10 and 19 years before presenting the claims now in dispute.” *Id.* at 1368. The Federal

Circuit stated that “[e]ven accepting Hyatt’s arguments on this score, these quantities of time are enough to trigger prosecution laches.” *Id.* PMC delayed filing of its applications for a comparable period. (FF 27, 67). Claim 13 of the ’091 patent (the independent claim asserted in this litigation) was first presented (as an “A” claim) in 2003, eight years after filing, and was re-introduced (as a “B” claim) in 2011, 16 years after filing. (FF 61, 64). The applications themselves were filed eight years after the 1987 specification and fourteen years after the 1981 specification. (FF 27, 67). Thus, PMC waited eight to fourteen years to file its patent applications and at least sixteen years to present the asserted claims for examination.

[CL 19] Mr. Hyatt filed his applications with “small claim sets, many of which were identical to each other.” *Hyatt*, 998 F.3d at 1353. “Simply put,” the Federal Circuit noted, “Hyatt’s applications were placeholders.” *Id.* at 1367. Similarly, PMC filed each of its applications with a single claim. These claims were contemporaneously or subsequently amended, sometimes to recite identical language. PMC, testifying through Mr. Scott, admitted that these were placeholder claims. (FF 31, 32).

[CL 20] Like PMC’s applications, Mr. Hyatt’s applications were “atypically long and complex.” *Hyatt*, 998 F.3d at 1353. The applications at issue in *Hyatt* contained, respectively, 576 pages of text and 65 pages of figures; 238 pages of text and 40 pages of figures; and 518 pages of text and 48 pages of figures. *Id.* PMC’s applications contained 559 pages of text and 22 pages of figures. (FF 10, 30, 50).

[CL 21] Also like PMC, Mr. Hyatt’s universe of claims ballooned soon after the applications were filed. By 2003, Mr. Hyatt had sought 115,000 claims (including 45,000 independent claims) across his 11 specifications. *Hyatt*, 998 F.3d at 1353. PMC sought anywhere

from 6,000 (Mr. Scott's estimate) to 20,000 claims (an examiner's estimate) across two specifications. (FF 31).

[CL 22] In *Hyatt*, the supervising examiner testified at trial that the “complexity, number, size, and overlap of Hyatt’s applications and claims made it difficult, if not impossible, for examiners to determine the claims’ priority dates for purposes of identifying the relevant body of prior art, to determine whether the claims satisfy the written description requirement, and to identify double patenting issues.” *Hyatt*, 998 F.3d at 1357. Similar issues persist in PMC’s applications. (FF 35–45, 50, 52, 55). In PMC’s case, this issue was exacerbated by the scope and content of PMC’s prior art disclosure. PMC disclosed thousands of references, many of which the examiners noted bore questionable relevance to the claimed inventions, and several of which were abjectly irrelevant. (FF 33, 34, 51, 53).

[CL 23] The only notable distinction between *Hyatt* and this case (other than the procedural posture) was that Mr. Hyatt acknowledged he lacked a “master plan” for demarcating his applications. *Hyatt*, 998 F.3d at 1369. In contrast, PMC met with the PTO to develop a consolidation agreement and demarcated its applications by subject matter. (FF 39). PMC contends this is a material distinction. (*See* Dkt. No. 640 at 54–55). The Court disagrees.

[CL 24] The central thrust of *Hyatt* was the district court’s erroneous blame of the PTO for failing to advance Mr. Hyatt’s applications. *Hyatt*, 998 F.3d at 1364–66. “The applicant is in the driver’s seat and must take care to avail itself of the PTO’s beneficial patent examination process as it stands and in a way that avoids undue delay leading to prejudice imposed on others.” *Id.* at 1366. The fact that the PTO took a more hands-on approach with PMC’s patents than with Mr. Hyatt’s patents is not material since prosecution laches considers the *applicant’s* conduct.

Even though the PTO assented to this consolidation plan, that does not automatically vindicate the public interest that prosecution laches protects.

[CL 25] Likewise, as in *Hyatt*, even though the PTO suspended prosecution of PMC’s applications, such is directly attributable to the manner in which PMC prosecuted its applications in the first place. Notably, PMC’s applications had already been pending for nearly ten years by the time PTO began suspending PMC’s applications pending reexamination. (FF 46–48, 62, 63).

[CL 26] The Federal Circuit also noted that the PTO *did* take action to advance prosecution of Mr. Hyatt’s applications. The “PTO’s instructions to, for example, provide written description support and priority date support, its instructions to demarcate the applications, its creation of a new art unit, and its issuance of atypical Requirements demonstrate that the PTO did not stand back and do nothing[.]” *Hyatt*, 998 F.3d at 1366. Notwithstanding this, the Federal Circuit held that these circumstances constitute an unreasonable delay on the applicant’s part. In PMC’s case, the PTO imposed similar Administrative Requirements and repeatedly reminded PMC of its ongoing duties under the governing regulations and laws. (FF 37, 52). A similar, lengthy delay nonetheless ensued.

[CL 27] PMC’s after-the-fact development of a plan to demarcate its inventions also does not excuse its absence of a plan at the time of its voluminous filings. If PMC had any understanding of the scope of its inventions prior to June 8, 1995, it could have filed its applications with *bona fide* claim sets directed to its “separate and distinct” inventions. It did not, however—choosing instead to pursue a shoot first, aim later strategy of filing “some 300-odd applications” with placeholder claims. (FF 27–29, 31, 32). Only in the intervening three years—after pushback from the PTO—did PMC engage in any demarcation. (FF 35–40).

[CL 28] The consolidation agreement itself also contributed to delays. PMC focuses on its prioritization of “A” applications, but ignores the effect of subordinating the “B” applications. By holding “B” applications in abeyance, the consolidation agreement guaranteed PMC the opportunity to prosecute rejected claims far into the future. In the case of the ’091 patent, the agreement permitted PMC in 2011 to present to the PTO a claim initially presented in 2003, and to have it issued (with minor amendments) in 2012. (FF 60–67). In effect, the consolidation agreement permitted PMC to realize its initial strategy of serialized prosecution, notwithstanding the GATT amendments and the URAA.

[CL 29] The events that transpired during PMC’s prosecution of its applications cannot be viewed separately in a vacuum, but must be viewed in their totality. PMC’s stated plan in the early 1990s was to prosecute applications serially and obtain patent protection far in excess of the statutory term. (FF 13–23). Critical to this plan was the pre-GATT patent term, which began at the date of issuance. If PMC cared only about obtaining patent protection on all of its inventions independently (as it contended at trial), it could have filed its applications after the GATT deadline (after proper diligence) with minimal difference. Conversely, pre-GATT patents provide no advantage over post-GATT patents unless the issue dates are correspondingly later. Delay is inherent to PMC’s scheme. The actual effect was the intended effect.

[CL 30] PMC sought 30 to 50 years of patent protection, and it obtained exactly that. The ’091 patent itself issued 17 years after the filing date. Its claims will expire 34 years after the application was filed, 42 years after the 1987 specification, and 48 years after the 1981 parent application. Delays of this magnitude do not occur by accident and do not occur when an applicant reasonably pursues prosecution.

[CL 31] The number of applications and order of prosecution are not the only factors that caused delay. The size of the specification, the deluge of references disclosed (including many irrelevant or unexplained references), and PMC’s shifting positions all contributed. (FF 30, 31, 33–38, 40–45, 50–55, 59–61, 67). Like in *Hyatt*, PMC’s prosecution conduct made it virtually impossible for the PTO to conduct double patenting, priority, or written description analyses. (FF 35, 37, 38, 43, 44, 50, 52); *see Hyatt*, 998 F.3d at 1368. Notably, the PTO’s operations were not digitized until 2003, “so before that point examiners needed to wade through large stacks of paper” to make these assessments. *Id.* “All of the above patterns of prosecution conduct created a perfect storm that overwhelmed the PTO.” *Id.*

[CL 32] Having considered the totality of the circumstances, the Court is persuaded that Apple has presented clear and convincing evidence of an unreasonable and unexplained delay, similar in length to delays previously held to constitute laches. As discussed above (CL 18), PMC’s actions at the PTO caused delays of similar length to that in *Hyatt* and other cases such as *Woodbridge*, *Webster*, and *Bogese*.

[CL 33] The fact that PMC’s initial prosecution strategy was lawful under pre-GATT rules, or that PMC conducted itself within the technical strictures of patent law and PTO regulations, is of no matter. “[T]he doctrine of prosecution laches places an additional, equitable restriction on patent prosecution conduct beyond those imposed by statute or PTO regulation.” *Hyatt*, 998 F.3d at 1366.

[CL 34] PMC also argues it did not abuse the patent system by keeping its patents hidden because the full specification of the Harvey 3 patent published in 1989 as part of an international (PCT) application. (*See* Dkt. No. 640 at 15, 15, 59). This is of no consequence because it is the claims, not the specification, that define the patentee’s rights. *See Phillips v. AWH Corp.*, 415 F.3d

1303, 1312 (Fed. Cir. 2005) (en banc). Additionally, PMC's specification was so long and complex that it supported (at one point) as many as 6,000 to 20,000 potential claims. (FF 31). It was prosecuted across at least 56 inventive-subject-matter categories for each of two priority dates. (FF 39). Experienced patent examiners struggled to deduce exactly what PMC was claiming. (FF 40, 42, 44, 50, 55). The fact that the specification was published in 1989 does not excuse the manner in which PMC prosecuted its claims until 2012 and beyond.

[CL 35] On this record, the only rational explanation for PMC's approach to prosecution is a deliberate strategy of delay. PMC has not furnished any other reasonable explanation for its strategy other than to obtain a portfolio of patent coverage greatly in excess of the statutory term. At such a size and scope, and through the means detailed above, PMC's actions were a conscious and egregious misuse of the statutory patent system. PMC's strategy, beginning at least in 1995, harmed the public interest to the detriment of science and the useful arts. *See Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd.*, 535 U.S. 722, 730–31 (2002) (“The patent laws ‘promote the Progress of Science and useful Arts’ by rewarding innovation with a temporary monopoly. U.S. Const., Art. I, § 8, cl. 8. The monopoly is a property right; and like any property right, its boundaries should be clear. . . . A patent holder should know what he owns, and the public should know what he does not.”).

C. PMC's Delay Prejudiced Apple

[CL 36] “[P]rosecution laches’ requirement of an unreasonable and unexplained delay includes a finding of prejudice, as does any laches defense.” *Cancer Research*, 625 F.3d at 729. “[T]o establish prejudice an accused infringer must show evidence of intervening rights, *i.e.*, that either the accused infringer or others invested in, worked on, or used the claimed technology during the period of delay.” *Id.*

[CL 37] The record presented evinces clear evidence that Apple developed intervening rights, and therefore was prejudiced, during the period of delay.

[CL 38] PMC delayed presentation of an instruct-to-enable-signal-based decryption method to the PTO until at least 2003. (FF 61). Had PMC prosecuted its applications diligently—rather than filing hundreds of placeholder applications—it could have claimed this invention much earlier. In so delaying, PMC prejudiced Apple, which had already begun investing in FairPlay’s development and continued to do so. By 2005—nearly ten years after PMC filed its applications, but nearly seven years before the ’091 patent issued—FairPlay had matured into the version accused of infringement. (FF 72).

[CL 39] This prejudice is underscored by the fact that a duly empaneled jury found that Apple’s FairPlay technology infringed at least one of claims 13, 14, 15, and 16 of the ’091 patent. (FF 5, 73). In other words, the jury found that use of Apple’s FairPlay technology practices each step of one of PMC’s method claims. 35 U.S.C. § 271(b); *Global-Tech Appliances, Inc. v. SEB S.A.*, 563 U.S. 754, 760–61 (2011).

[CL 40] Apple began developing FairPlay in 2003. From that time until the time of trial, Apple continued to develop FairPlay, expanding its implementation into various services including iTunes and the App Store. (FF 71. 72).

[CL 41] Meanwhile, as Apple was developing FairPlay, PMC was prosecuting the claims it would later assert. The claims at issue in this case, including independent claim 13, were presented to the PTO in 2003 a application claim 22 of the ’145 “A” application. (FF 61). Prosecution of this application claim continued, first as a part of the ’145 “A” application and later as application claim 45 of the ’507 “B” application. The “B” application issued as the ’091 patent

in May of 2012, and application claim 45 issued (with minor narrowing amendments) as independent claim 13. (FF 65–67).

[CL 42] Apple’s FairPlay technology relies on encryption and decryption. (FF 68–70). Claim 13’s predecessor was not amended to claim encryption and decryption for the first time until February of 2003—nearly *eight years* after PMC filed its 328 applications—well into the period of delay. (FF 61).

[CL 43] Apple continued to develop FairPlay over the intervening years—before, during, and after the suspension of prosecution. In 2011, after prosecution reopened, PMC added the 2003 version of asserted claim 13 to the ’507 application as application claim 45. With minor amendments, it issued in May of 2012. (FF 65–67).

[CL 44] At the same time as PMC was prosecuting these claims, it was in licensing negotiations with Apple. PMC first approached Apple in 2008. (FF 74). Then, in 2011—around the time the ’091 patent was being prosecuted to issuance, PMC was sending claim charts to Apple on its other patents. (FF 74). PMC subsequently amended the claims it would later assert. (FF 65). The ’091 patent was never identified to Apple until PMC filed its complaint in 2015. (FF 74).

[CL 45] All of these events must be viewed in the context of PMC’s original plans: to prosecute its patents serially over time and keep them hidden until infringement was engrained and widespread. (FF 13–23).

[CL 46] PMC filed lengthy and complex disclosures with the PTO in 1981 and 1987. (FF 9–10). In the early 1990s, it prosecuted its applications serially, hoping to extend the temporal scope of its protection for 30 to 50 years. (FF 13–16). It developed a plan to conceal its inventions until infringement was widespread. (FF 17–23). It also identified numerous potential targets for licensing, including specifically Apple. (FF 20). Driven by a change in the law, PMC then engaged

in a prosecution strategy that significantly delayed the issuance of its patents. (FF 25–48). In 2012, PMC was issued patent claims that it first sought in 2003 as part of a 1995 application based on a 1987 disclosure that itself was a continuation-in-part of a 1981 parent application. (FF 67). Finally, in 2015, PMC sued Apple over technology that Apple had developed in the interim, obtaining a verdict of infringement. (FF 1, 5). PMC essentially asks the Court to view these events as coincidences. They were not.

[CL 47] Apple has presented clear and convincing evidence that it worked on, invested in, and used the claimed technology during the period of delay. Accordingly, the Court is persuaded that Apple developed intervening rights, and was therefore prejudiced by PMC’s dilatory prosecution.


III. CONCLUSION

This Court takes very seriously the prospect of disturbing the unanimous verdict of a duly empaneled jury. *See* U.S. CONST. AMEND. VII (“[N]o fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.”). At the same time, the Court cannot disregard the clear, timely, highly relevant, and—above all—binding authority from the Federal Circuit. *Hyatt* is a proverbial “white horse” case,⁷ which makes clear that the course of conduct undertaken by PMC constitutes an unreasonable delay and an abuse of the statutory patent system. On these compelling facts, the Court sitting in equity has a duty to apply the equitable doctrine of prosecution laches even if it overturns a jury’s unanimous verdict. As Apple has presented clear and convincing evidence of prosecution laches, the Court finds and decrees that the ’091 patent is **UNENFORCEABLE**.

Judgment will be entered accordingly.

⁷ *See Hilland v. Arnold*, 856 S.W.2d 240, 242 n.1 (Tex. App.—Texarkana 1993, no writ).

So ORDERED and SIGNED this 5th day of August, 2021.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE