

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

MOBILE TELECOMMUNICATIONS	§	
TECHNOLOGIES, LLC,	§	
	§	
Plaintiff,	§	
	§	
v.	§	Case No. 2:13-cv-885-RSP
	§	
LEAP WIRELESS INTERNATIONAL,	§	
INC. ET AL.,	§	
	§	
Defendants.	§	

MEMORANDUM ORDER

Pending before the Court is Defendants’ Leap Wireless International, Inc. and Cricket Communications, Inc.’s (collectively, Leap) Motion for Judgment on the Pleadings Regarding U.S. Patent No. 5,659,891 (the ’891 patent). (Doc. No. 60.) Leap contends that the ’891 patent is directed to an “abstract idea.” Plaintiff Mobile Telecommunications Technologies, LLC (MTel) contends that the patent is directed to a concrete invention. In any event, MTel contends the additional limitations in the claims of the ’891 patent transform any claim directed to a potential “abstract idea” into patentable subject matter.

RULE 12(c) STANDARD

Federal Rule of Civil Procedure 12(c) provides that: “After the pleadings are closed—but early enough not to delay trial—a party may move for judgment on the pleadings.” Fed. R. Civ. P. 12(c). “A motion for judgment on the pleadings under Rule 12(c) is subject to the same standard as a motion to dismiss under Rule 12(b)(6).” *Doe v. MySpace, Inc.*, 528 F.3d 413, 418 (5th Cir. 2008). To survive a motion for judgment on the pleadings, “a complaint must contain sufficient factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544,

570 (2007)); *see also In re Katrina Canal Breaches Litig.*, 495 F.3d 191, 205 (5th Cir. 2007) (“The central issue is whether, in the light most favorable to the plaintiff, the complaint states a valid claim for relief.”) (quoting *Great Plains Trust Co. v. Morgan Stanley Dean Witter & Co.*, 313 F.3d 305, 312 (5th Cir. 2002)).

ELIGIBILITY UNDER 35 U.S.C. § 101

Section 101 of the Patent Act defines what is eligible for patent protection. It says: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101.

The Supreme Court has held that there are three specific exceptions to patent eligibility under § 101: laws of nature, natural phenomena, and abstract ideas. *Bilski v. Kappos*, 561 U.S. 593, 601 (2010). In *Mayo*, the Supreme Court set out a two-step test for “distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)).

The first step of *Mayo* requires a court to determine if the claims are directed to a law of nature, natural phenomenon, or abstract idea. *Alice*, 134 S. Ct. at 2355. “If not, the claims pass muster under § 101.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014). In making this determination, the court looks at what the claims cover. *Ultramercial*, 772 F.3d at 714 (“We first examine the claims because claims are the definition of what a patent is intended to cover.”); *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1369 (Fed. Cir. 2015) (“At step one of the *Alice* framework, it is often useful to determine the breadth of the

claims in order to determine whether the claims extend to cover a ‘fundamental ... practice long prevalent in our system’”) (quoting *Alice*, 134 S. Ct. at 2356).

For example, in *Bilski*, the Supreme Court rejected as a patent-ineligible “Claims 1 and 4 in petitioners’ application” because the claims simply “explain[ed] the basic concept of hedging, or protecting against risk.” *Bilski*, 561 U.S. at 611. Similarly, in *Ultramercial*, the Federal Circuit rejected as patent-ineligible a claim that included “eleven steps for displaying an advertisement in exchange for access to copyrighted media.” *Ultramercial*, 772 F.3d at 714. In *Intellectual Ventures*, the Federal Circuit rejected as a patent-ineligible a claim that recited components that “relate[d] to customizing information based on (1) information known about the user and (2) navigation data.” *Intellectual Ventures*, 792 F.3d at 1369.

A court applies the second step of *Mayo* only if it finds in the first step that the claims are directed to a law of nature, natural phenomenon, or abstract idea. *Alice*, 134 S. Ct. at 2355. The second step requires the court to determine if the elements of the claim individually, or as an ordered combination, “transform the nature of the claim” into a patent-eligible application. *Alice*, 134 S. Ct. at 2355. In determining if the claim is transformed, “[t]he cases most directly on point are *Diehr* and *Flook*, two cases in which the [Supreme] Court reached opposite conclusions about the patent eligibility of processes that embodied the equivalent of natural laws.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1298 (2012); *see also Alice*, 134 S. Ct. at 2355 (“We have described step two of this analysis as a search for an ‘inventive concept.’”).

In *Diehr*, the Court “found [that] the overall process [was] patent eligible because of the way the additional steps of the process integrated the equation into the process as a whole.” *Mayo*, 132 S. Ct. at 1298 (citing *Diamond v. Diehr*, 450 U.S. 175, 187 (1981)); *see also Mayo*,

132 S. Ct. at 1299 (“It nowhere suggested that all these steps, or at least the combination of those steps, were in context obvious, already in use, or purely conventional.”). In *Flook*, the Court found that a process was patent-ineligible because the additional steps of the process amounted to nothing more than “insignificant post-solution activity.” *Diehr*, 450 U.S. at 191–92 (citing *Parker v. Flook*, 437 U.S. 584 (1978)).

A claim may become patent-eligible when the “claimed process include[s] not only a law of nature but also several unconventional steps ... that confine[] the claims to a particular, useful application of the principle.” *Mayo*, 132 S. Ct. at 1300; *see also DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014) (“In particular, the ’399 patent’s claims address the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host’s website after ‘clicking’ on an advertisement and activating a hyperlink.”). A claim, however, remains patent-ineligible if it describes only “[p]ost-solution activity’ that is purely ‘conventional or obvious.’” *Mayo*, 132 S. Ct. at 1299.

ANALYSIS

A. *Mayo* Step One

Leap contends that claim 1 of the ’891 patent “covers the abstract idea of selecting the transmission frequencies for multi-carrier transmission via a mathematical formula.” (Doc. No. 60, at 11.) For this reason, Leap asserts, “[t]he Supreme Court’s decision in *Flook* compels a finding that the claims at issue here are directed to an abstract concept.” (Doc. No. 60, at 11.) MTel responds that Leap “has failed to demonstrate that Claim 1—or any claim—of the ’891 Patent is directed at [] an abstract idea.” (Doc. No. 69, at 9.) Unlike “[t]he ‘abstract ideas’ held unpatentable by the decisional law relied upon by [Leap],” MTel contends that claim 1 is

directed at “a method of operating a plurality of paging carriers (transmitted from the same location) in a single mask-defined bandlimited channel, where carriers are spaced in a specific way.” (Doc. No. 69, at 9, 8.)

Claim 1 of the ’891 patent recites:

1. A method of operating a plurality of paging carriers in a single mask-defined, bandlimited channel comprising the step of transmitting said carriers from the same location with said carriers having center frequencies within said channel such that the frequency difference between the center frequency of the outer most of said carriers and the band edge of the mask defining said channel is more than half the frequency difference between the center frequencies of each adjacent carrier.

(’891 patent, col. 6 ll. 4–12.)

In plain language, claim 1 recites a one-step method for transmitting “paging carriers” within a “bandlimited channel.” (’891 patent, col. 6 ll. 4–12.) The step recites three key limitations: (1) a spatial limitation that requires the “plurality of paging carriers” to be transmitted “from the same location”; (2) a channel limitation that requires the “plurality of paging carriers” to “hav[e] center frequencies” within a “bandlimited channel”; and (3) a frequency limitation that requires the difference between “the center frequency of the outer most of [the paging] carriers” and the “[frequency at] the band edge of the mask” to be greater than half the difference between “the center frequencies of each adjacent [paging] carrier.” (’891 patent, col. 6 ll. 4–12.)

The Court finds that under *Mayo* step one, claim 1 of the ’891 patent is not directed to an “abstract idea.” *See Alice*, 134 S. Ct. at 2355. Claim 1 teaches a way of transmitting “paging carriers” in a “bandlimited channel” where the “paging carriers” are transmitted from the “same location” and are modulated with reference to two different frequencies: one frequency at the “band edge of the mask” and the other frequency at the center frequency of “each adjacent

carrier.” (’891 patent, col. 6 ll. 4–12.) Transmitting “paging carriers” from “the same location” and modulating their transmission frequencies is not an abstract idea in the vein of “a fundamental economic practice.” *See Alice*, 134 S. Ct. at 2356–57.

Leap asserts, however, that claim 1 is directed at an “abstract idea” because some portion of the claim can be “expressed mathematically as ... $Fc1-Fm1>0.5(Fc2-Fc1)$, where: **Fc1** is the center frequency of one carrier; **Fc2** is the center frequency of the other carrier; and **Fm1** is the frequency of the mask band edge nearest Fc1.” (Doc. No. 60, at 4.) The Court rejects Leap’s contention that this formula makes claim 1 patent-ineligible. Leap has cited no authority that holds that when an otherwise patent-eligible claim is expressed as a mathematical formula, the claim becomes patent-ineligible under § 101.

The Supreme Court has repeatedly emphasized that the bar on patenting abstract ideas “embodies the ‘longstanding rule that ‘[a]n idea of itself is not patentable.’”” *Alice*, 134 S. Ct. at 2355 (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Leap has not shown that claim 1 is an attempt at patenting the mathematical formula, $Fc1-Fm1>0.5(Fc2-Fc1)$.

Furthermore, the Court does not find it surprising that Leap can express a part of claim 1 using a mathematical formula. The fact that some requirements of a claim can be rewritten in the language of mathematics does not inherently mean that the claim is directed to an abstract idea because “[a]t some level, ‘all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’” *Alice*, 134 S. Ct. at 2354; *see also id.* at 2356–57 (“One of the claims in *Bilski* reduced hedging to a mathematical formula, but the Court did not assign any special significance to that fact the Court grounded its conclusion that all of the claims at issue were abstract ideas in the understanding that risk hedging was a ‘fundamental economic practice.’”); *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344,

1350 (Fed. Cir. 2014) (“In determining whether a process claim recites an abstract idea, we must examine the claim as a whole, keeping in mind that an invention is not ineligible just because it relies upon a law of nature or mathematical algorithm.”).

B. *Mayo* Step Two

The Court finds that claim 1 is not directed to an abstract idea and is therefore patent-eligible under § 101. But assuming that claim 1 is directed to an abstract idea, under *Mayo* step two, the additional elements of the claim would transform it into a patent-eligible application. *See Alice*, 134 S. Ct. at 2355.

Leap asserts that claim 1 is patent-ineligible because “[b]eyond the mathematical formula ... claim 1 recites just a single step expressed in a mere seven (7) words—‘transmitting said carriers from the same location.’” (Doc. No. 60, at 14.) Leap further asserts that this “transmitting” step “is a multi-carrier transmission technique that the Patent admits, and the Patent Office confirmed, is conventional.” (Doc. No. 60, at 14–15.)

MTel responds that “Claim 1 of the ’891 Patent applies the $[F_c1 - F_m1 > 0.5(F_c2 - F_c1)]$ formula in a novel way: to define the spacing between a plurality of subcarriers in a bandlimited channel.” (Doc. No. 69, at 11.) MTel contends that even “[i]f Claim 1 is only ‘a formula,’ it is a formula applied in a novel, useful, and specific way, and is therefore, patentable.” (Doc. No. 69, at 11.)

Claim 1 teaches a way of transmitting “a plurality of paging carriers” in a “bandlimited channel” that avoids “[t]he problem of interference ... when a receiver is attempting to acquire a signal from a distant transmitter while in close proximity to a transmitter operating on an adjacent channel.” (’891 patent, col. 1 ll. 47–50.) The specification of the ’891 patent discloses that, when “paging carriers” are transmitted according to claim 1, it permits “carrier spacings far

closer than would ordinarily be allowed.” (’891 patent, col. 4 ll. 14–15.) Furthermore, “carrier spacings may be irregular such that the carriers are asymmetrically located within the mask without incurring undue interference.” (’891 patent, col. 4 ll. 21–23.) These “closer” or “asymmetrical” carrier spacings can be described using the formula, $Fc1-Fm1 > 0.5(Fc2-Fc1)$.

The ’891 patent further discloses that, “[t]hrough the multicarrier modulation technique of the present invention, the normal transmission capacity of a standard channel can be increased without the need for stringent subchannel protection levels and complicated receiver and transmitter schemes.” (’891 patent, col. 5 ll. 22–27.) This “has particular application in metropolitan areas where the volume and concentration of transmission traffic is high and where the need for increased transmission capacity is acute.” (’891 patent, col. 5 ll. 28–32.) “In addition, the modulation technique of the present invention may also be suited for use in areas where the incidence of unacceptable interference is high.” (’891 patent, col. 5 ll. 33–36.)

The specification of the ’891 patent shows that when “paging carriers” are transmitted “from the same location” and spaced “closer” or “asymmetrically” in a manner that can be described using the formula, $Fc1-Fm1 > 0.5(Fc2-Fc1)$, the combination of these elements purports to solve bandwidth and interference problems in the “paging carrier” transmission field. (’891 patent, col. 5 ll. 28–36.) This shows that the ’891 patent might “employ[] a ... mathematical equation, but it use[s] that equation in a process designed to solve a technological problem in ‘conventional industry practice.’”¹ *Alice*, 134 S. Ct. at 2358 (quoting *Diehr*, 450 U.S. at 177–

¹ For two reasons, the Court rejects Leap’s analysis where it isolates the mathematical formula from the claim and asserts that the remaining transmitter limitations are “not at all new at the time the ’891 Patent was filed.” (Doc. No. 75 at 1.) First, in *Alice*, the Supreme Court held that *Mayo* step two requires “consider[ation] [of] the elements of each claim both individually and ‘as an ordered combination.’” *Alice*, 134 S. Ct. at 2355; *see also Bilski*, 561 U.S. at 611 (“*Diehr* emphasized the need to consider the invention as a whole, rather than ‘dissect[ing] the claims into old and new elements and then ... ignor[ing] the presence of the old elements in the

78); *see Diehr*, 450 U.S. at 192–93. (“Because we do not view respondents’ claims as an attempt to patent a mathematical formula, but rather to be drawn to an industrial process for the molding of rubber products, we affirm the judgment of the Court of Customs and Patent Appeals.”); *see also DDR Holdings*, 773 F.3d at 1259 (“In short, the claimed solution amounts to an inventive concept for resolving this particular Internet-centric problem, rendering the claims patent-eligible.”). *But cf. Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2117–18 (2013) (“Indeed, Myriad’s patent descriptions highlight the problem with its claims Many of Myriad’s patent descriptions simply detail the ‘iterative process’ of discovery by which Myriad narrowed the possible locations for the gene sequences that it sought.”).

CONCLUSION

The Court finds that claim 1 of the ’891 patent is not directed toward an abstract idea and does not violate “the longstanding rule that ‘[a]n idea of itself is not patentable.’” *Alice*, 134 S. Ct. at 2355 (quoting *Benson*, 409 U.S. at 67). The Court further finds that, even if claim 1 is directed to an abstract idea, the additional elements of the claim “transform the nature of the claim” into patent-eligible subject matter. *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1298). Claim 1 uses any potentially abstract idea in the claim “in a process designed to solve a technological problem in ‘conventional industry practice.’” *Alice*, 134 S. Ct. at 2358 (quoting *Diehr*, 450 U.S. at 177–78). *Leap Wireless International, Inc. and Cricket Communications,*

analysis.”) (quoting *Diehr*, 450 U.S. at 188). Second, Leap is essentially taking the position that claim 1 of the ’891 patent is not patent-eligible under § 101 because its elements are not novel and non-obvious. However, the Supreme Court has made clear that novelty and non-obviousness are *separate* considerations from patent-eligibility. *Bilski*, 561 U.S. at 602 (“The § 101 patent-eligibility inquiry is only a threshold test in order to receive the Patent Act’s protection the claimed invention must also satisfy ‘the conditions and requirements of this title.’”); *see also DDR Holdings*, 773 F.3d at 1259 at n.6 (“Of course, patent-eligible does not mean patentable under, *e.g.*, 35 U.S.C. §§ 102 and 103.”); *id.* at 1257 n.5 (“On a fundamental level, the creation of new compositions and products based on combining elements from different sources has long been a basis for patentable inventions.”).

Inc.'s Motion for Judgment on the Pleadings Regarding U.S. Patent No. 5,659,891 (Doc. No. 60) is **DENIED** and Leap Wireless International, Inc. and Cricket Communications, Inc.'s Motion for Hearing on Defendants' Motion for Judgment on the Pleadings Regarding U.S. Patent No. 5,659,891 (Doc. No. 61) is **DENIED AS MOOT**.

SIGNED this 23rd day of September, 2015.


ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE