IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

GOLDEN BRIDGE TECHNOLOGY, INC.,)
Plaintiff,)
v .) Civ. No. 10-428-SLR
APPLE INC., et al.,)
Defendants.)
GOLDEN BRIDGE TECHNOLOGY, INC.,))
Plaintiff,)
v .) Civ. No. 11-165-SLR
AMAZON.COM, INC., et al.,)
Defendants.)

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MEMORANDUM OPINION

Dated: April 9, 2013 Wilmington, Delaware

ROBINSON District Judge

I. INTRODUCTION

The court in this memorandum opinion construes limitations in U.S. Patent Nos. 6,574,267 B1 ("the '267 patent"), as reexamined,¹ and 7,359,427 B2 ("the '427 patent") (collectively, "the patents-in-suit"). Golden Bridge Technology, Inc. ("GBT") has asserted infringement of the patents-in-suit against numerous defendants in two suits before this court, captioned *Golden Bridge Technology, Inc. v. Apple Inc.*² and *Golden Bridge Technology, Inc. v. Apple Inc.*² and *Golden Bridge Technology, Inc. v. Apple Inc.*² and *Golden Bridge Technology, Inc. v. Amazon.com Inc.*³ (D.I. 1/1)⁴ The parties stayed both cases to pursue mediation, which resulted in the dismissal of several defendants. Following a status conference held by the court, the parties jointly stipulated to consolidate claim construction proceedings and to stay all claims other than those asserted against Apple. (D.I. 178/244) The parties also agreed upon, and the court approved, a procedure by which all defendants (other than Apple) could choose whether to participate in the consolidate claim construction.⁵

The parties participating in claim construction proceedings have completed consolidated claim construction briefing, and the court held oral argument on March 19,

²Civ. No. 10-428.

³Civ. No. 11-165.

⁴The papers relevant to claim construction have been docketed in both cases. The court will reference both dockets in each citation – the first D.I. number will reference docket items in Civ. No. 10-428, and the second D.I. number will reference docket items in Civ. No. 11-165.

⁵For ease of reference, the court refers to those defendants from Civ. Nos. 10-428 and 11-165 that are participating in claim construction proceedings simply as "defendants."

¹U.S. Patent No. 6,574,267 C1.

2013. The court has jurisdiction over these matters pursuant to 28 U.S.C. § 1338.

II. BACKGROUND

A. The Patents-In-Suit and Disputed Limitations

The patents-in-suit are assigned to GBT and list the same two inventors – Emmanuel Kanterakis and Kourosh Parsa. The '267 patent, titled "RACH Ramp-Up Acknowledgement," originally issued on June 3, 2003 with twenty-nine claims ("the original '267 patent"). Following ex parte reexamination, the United States Patent and Trademark Office ("PTO") issued a reexamination certificate on December 15, 2009, confirming the patentability of claims 1-12 and 27-29; cancelling claims 13-26; and adding new claims 30-60. The '427 patent, also titled "RACH Ramp-Up Acknowledgement," is a continuation of the '267 patent and issued on April 15, 2008.

Both patents-in-suit relate generally to wireless cellular networks and teach a method for establishing a communication link between a mobile station, such as a cellular telephone, and a base station. Rather than devoting a communication channel to each mobile station, the system contemplates a channel that allows multiple signals to be sent over the same channel and provides each remote station with random access to the channel ("RACH"). ('267 patent, col. 1:19-23, 1:27-32, 1:55-59) To establish a communication link with a base station, a mobile station must transmit a preamble at a power level high enough to be detected by the base station. However, if the power is too high, it can cause interference to other mobile stations sharing the same communication channel.

The invention teaches a "ramp-up" process to reduce the risk of interference by

ensuring the lowest detectable power level is used while providing fast communication links. A mobile station seeking to establish a connection with a base station will transmit preambles at increasing power levels until the signal is detected by a base station. Once a base station detects a preamble, it sends the mobile station an acknowledgment, after which the mobile station begins transmission of data or voice communications.

The parties agree that the patents-in-suit share the same relevant written description and figures and that the claim limitations have the same meaning throughout the patents-in-suit.⁶ (See D.I. 193/279; D.I. 208/284 at 4; D.I. 210/286 at 2 n.1) Although the parties' joint claim construction chart identifies a number of disputed claim limitations (*see* D.I. 193/279), the parties have narrowed down the claim construction exercise, for purposes of summary judgment of the claims against Apple, to two disputed claim limitations: (1) "access preamble"/"preamble;" and (2) "discrete power level." "Access preamble" or "preamble" appears in claims 27-29, and 42-60 of the '267 patent and every claim, 1-38, of the '427 patent; "discrete power level" appears in claims 3, 9-12, 14-30, and 32-35 of the '427 patent.

B. Prior Litigation Over the '267 Patent

In 2005, GBT filed suit ("the Texas litigation") in the United States District Court for the Eastern District of Texas ("the Texas court") alleging infringement of the original '267 patent against Nokia, Inc. ("Nokia") and Lucent Technologies, Inc. ("Lucent")

⁶For convenience, the court will cite to the '267 specification.

(collectively, "the Texas defendants").⁷ The Texas court issued its claim construction order on June 20, 2006, noting several limitations for which the parties had reached agreement and construing four remaining disputed limitations. (D.I. 229/292, ex. 23)

As relevant to the instant cases, the parties to the Texas litigation agreed that "preamble" means "a signal used for communication with the base station that is spread before transmission." However, they disputed the construction of "access preamble." GBT proposed the construction "a preamble selected for transmission from a set of predefined preambles," while the Texas defendants argued that an "access preamble" is "an unspread preamble." (See id. at JA1905) In its claim construction order, the Texas court found that "the surrounding claim language indicates that the patentee has used 'access preamble' and 'preamble' interchangeably." (See id.) It reasoned:

Claim 27 provides for "spreading an access preamble selected from a set of predefined preambles; transmitting from the MS transmitter the spread access preamble." Thus, the "access preamble" is spread before it is transmitted, which is consistent with the notion that a "preamble" is "spread before transmission" as the agreed construction provides."

(*Id.*) (citation omitted) (footnote omitted) The Texas court rejected the Texas defendants' proposed construction, finding that it rested on the unsupported assumption that, before a preamble is "spread," it is necessarily "un-spread." Rather, the Texas court found that the claim language and specification "emphasize that the preamble is spread before transmission, but do not explicitly differentiate between 'spread' and 'un-spread' signals." (*Id.* at JA-1906)

⁷GBT asserted claims 13 and 23 of the original '267 patent against Lucent and claims 23-29 against Nokia. *Golden Bridge Tech., Inc. v. Nokia, Inc.*, Civ. No. 2:05cv151, 2007 WL 294176, at *4 n.1 (E.D. Tex. Jan. 29, 2007).

On January 29, 2007, the Texas court found the asserted claims of the original '267 patent to be invalid as anticipated under 35 U.S.C. § 102(b) by two prior art publications: (1) the Mobile Station-Base Station Compatibility Standard for Dual-Mode Wideband Spectrum Cellular System IS-95A ("the IS-95A Standard"); and (2) Nokia Telecommunication's Patent Cooperative Treaty publication No. WO9746041 by Hakkinen, et al. *Golden Bridge Tech., Inc. v. Nokia, Inc.,* Civ. No. 2:05cv151, 2007 WL 294176, at *4 n.1 (E.D. Tex. Jan. 29, 2007). The Federal Circuit affirmed the invalidity decision on May 21, 2008, on grounds that GBT's sole challenge was barred for being raised, without justification, for the first time on appeal. *Golden Bridge Tech., Inc. v. Nokia, Inc.,* 527 F.3d 1318, 1324 (Fed. Cir. 2008). The Federal Circuit did not consider or address claim construction.

III. STANDARD OF REVIEW

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

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

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

IV. THE LIMITATIONS

Claim 27 of the '267 patent (from which asserted claim 51 depends) is illustrative

of a method claim reciting the disputed limitations:

27. A method of transferring packet data for a mobile station (MS) with an MS receiver and an MS transmitter, comprising:

receiving at the MS receiver a broadcast common channel from a base station;

determining a plurality of parameters required for transmission of the base station;

spreading an access preamble selected from a set of predefined preambles;

transmitting from the MS transmitter the spread access preamble, at a first discrete power level;

if NO acknowledgement corresponding to the access preamble is detected, transmitting a spread access preamble from the MS transmitter at a second discrete power level higher than the first discrete power level; and

upon detecting an acknowledgement corresponding to a transmitted access preamble, ceasing preamble transmission and transmitting the packet data from the MS transmitter.

('267 patent, claim 27) Claim 29 of the '267 patent (from which asserted claim 52

depends) is illustrative of a device claim reciting the disputed limitations:

29. A code-division-multiple-access (CDMA) wireless handset,

comprising:

a CDMA transmitter;

a CDMA receiver; and

a controller coupled to the CDMA receiver for responding to signals received via the CDMA receiver and coupled for controlling the CDMA transmitter, such that in operation the CDMA handset is for performing the following steps:

spreading an access preamble selected from a set of predefined preambles;

transmitting the spread access preamble, at a first discrete power level to a base station;

if NO acknowledgement corresponding to the access preamble is detected, transmitting a spread access preamble from the MS transmitter at a second discrete power level higher than the first discrete power level; and

upon detecting an acknowledgement corresponding to a transmitted access preamble, ceasing preamble transmission and transmitting packet data from the MS transmitter.

(*Id.*, claim 29)

A. "Access Preamble"/"Preamble"

The parties agree that, consistent with the Texas court's finding, "preamble" and

"access preamble" are interchangeable and, thus, should have the same construction.⁸

Defendants propose the same construction that GBT and the Texas defendants

stipulated to in the Texas litigation for the limitation "preamble" and that the Texas court

subsequently adopted for its construction of the limitation "access preamble": "a signal

used for communicating with the base station that is spread before transmission." (D.I.

⁸For ease of reference, the court hereinafter may use "preamble" to refer to both "preamble" and "access preamble."

193/279) This construction requires that the preamble be "spread"⁹ before transmission. GBT's proposed construction contains no such requirement of spreading before transmission. Instead, GBT asserts that a preamble must (1) be without message data, and (2) comprise one or more codes that allow a mobile station to be matched to a preamble. It proposes the construction: "an access signal without message data and comprising one or more codes that distinguish one access preamble/preamble from another and used during an access procedure to facilitate establishing a communication link between a base station and a remote station." (*Id.*)

1. Collateral estoppel

The court first examines, as a threshold matter, what effect the Texas litigation should have on claim construction in the instant cases. Defendants argue that, because the original '267 patent was asserted in the Texas litigation and the Texas court construed "access preamble," GBT is estopped from relitigating its meaning in this court. Regional circuit law applies to the determination of whether collateral estoppel applies. *See Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 435 F.3d 1356, 1359-60 (Fed. Cir. 2008). In the Third Circuit, collateral estoppel requires: (1) the "identical" issue (2) was "actually litigated," (3) was "necessary to the decision," and (4) the party "was fully represented in the prior action." *See Howard Hess Dental Labs. Inc. v. Dentsply Intern. Inc.*, 602 F.3d 237, 247 (3d Cir. 2010); *see also Biovail Labs. Int'l SRL v. Intelgenx Corp.*, Civ. No. 09-605, 2010 WL 5625746, at *4 (D. Del. Dec. 27, 2010). Here, GBT, with representation, litigated the construction of "access preamble" in the

⁹The parties agree that "spreading" a preamble means increasing the bandwidth of the preamble. (D.I. 193/279)

Texas court, and construction of the limitation was necessary to the invalidity decision. GBT's only argument against collateral estoppel is that the issue is not identical because "the '427 patent is a different patent, the reexamined '267 patent has different claims from those asserted in the Texas litigation, and the reexamined '267 patent has additional prosecution history that is necessarily relevant to claim construction." (D.I. 208/284 at 19; D.I. 212/288 at 1-3)

The court agrees with GBT that collateral estoppel is not applicable because the issue decided by the Texas court is not identical to that being litigated in the instant cases. The '427 patent and the reexamined '267 patent were issued on April 15, 2008 and December 25, 2009, respectively, after the conclusion of the Texas litigation (including the appeal). Neither prosecution history file was of record during that case. That additional prosecution history, before the court in the instant cases, does not necessarily mean that the scope of any disputed limitations changed. However, the court cannot simply ignore new prosecution history that was not of record in the Texas litigation. See Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc., Civ. No. 08-309, 2009 WL 4928029, at *16-17 & n.1 (D. Del. Dec. 19, 2009) (citing Hawksbill Sea Turtle v. FEMA, 126 F.3d 461, 477 (3d Cir. 1977)) (finding that collateral estoppel does not apply where subsequent "reexamination history needs to be considered in connection with construing the claims"). Therefore, collateral estoppel does not apply, and the court is not bound by the Texas court's construction of "access preamble" or the stipulated construction of "preamble" from the Texas litigation.

2. "Preamble"/"access preamble" is spread before transmission

Although GBT is not estopped from rearguing the construction of "preamble," there is nothing new in the additional new prosecution history that addresses whether or not a preamble is spread before transmission. The court finds that the construction of "access preamble" and the stipulated construction of "preamble" from the Texas litigation are still applicable insofar as they include spreading prior to transmission.

As the Texas court reasoned, the claim language and specification emphasize that a preamble is spread before transmission. According to the specification and as shown in figure 4, after generation of a preamble and before transmission, a preamble is "spread-spectrum processed by product device 426, with s spreading chip-sequence from spreading-sequence generator 427." ('267 patent, fig. 4, col. 4:38-51, 5:28-30) Although claim language is not necessarily limited to a particular embodiment, the specification is largely directed to a detailed description of the figures; it does not contemplate any other embodiment regarding generating and transmitting a preamble.

The surrounding claim language is consistent with figure 4 and the specification, and provide that an access preamble is spread before it is transmitted. For example, claims 27 and 29 of the '267 patent, from which asserted claims 51 and 52 depend, provide for "spreading an access preamble selected from a set of predefined preambles; transmitting from the MS transmitter the spread access preamble." GBT argues that several claims do not recite a "spreading an access preamble" step. (D.I. 212/288 at 6-7) However, GBT's focus on the absence of that explicit limitation in those claims is unavailing. First, all of the claims that recite a preamble or access preamble

also recite either a "spread-spectrum transmitter,"¹⁰ a "spread-spectrum modulator" (and demodulator),¹¹ a "spread-spectrum wireless communication network,"¹² or "spread-spectrum transmitting."¹³ A mobile station "spread-spectrum transmitter" is shown in figure 4, which the written description defines as "includ[ing] . . . [a] spreading-sequence generator 427 [that] is coupled to the product device 426." (*Id.*, col. 4:38-51) The product device 426 is the component that spreads a preamble by using a spreading chip-sequence from the spreading-sequence generator 427. (*Id.*, fig. 4, col. 5:28-30) The parties further agree that "spread spectrum" is "a communication technique wherein the transmitted information is spread in bandwidth prior to transmission over the channel and then de-spread in bandwidth by the same amount at the receiver." (D.I. 193/279) Therefore, the claims that recite transmitting a preamble or access preamble, but that do not explicitly recite a "spreading an access preamble" step, still require the spreading of preambles prior to transmission.

Moreover, construing "preamble" to require spreading prior to transmission does not impermissibly add a "spreading" step into claims that do not recite one. The patentee simply chose to draft certain claims to recite the "object" (a preamble that is spread before transmission) and the step of "transmitting" it, without explicitly reciting

¹⁰See claims 45-46, 49-50, 53-54, and 58 of the '267 patent, and claims 9-10 and 26-28 of the '427 patent.

¹¹See claims 47-48 and 55-57 of the '267 patent, and claims 29-31 of the '427 patent.

¹²See claims 14, 17-19 and 21-25 of the '427 patent.

¹³See claims 1-8 of the '427 patent.

the "spreading" step. That choice, however, does not change the meaning of "preamble."

GBT also asserts that defendants' proposed construction would render the claim limitation superfluous or ambiguous. (D.I. 208/284 at 21) *See Digital-Vending Servs. Int'l, LLC v. Univ. of Phoenix, Inc.*, 672 F.3d 1270, 1275 (Fed. Cir. 2012). Specifically, GBT argues that if one construes "access preamble" as a signal that is spread before transmission, the claim language – "spreading an access preamble"¹⁴ or "spread . . . access preamble"¹⁵ – would make it unclear whether the signal is spread more than once. The court disagrees. The word "spreading" or "spread" modifying "access preamble" merely emphasizes that the access preamble has to be spread prior to transmission, in accordance with the invention's teaching. The patents-in-suit do not differentiate between preambles that are spread before transmission and preambles that are not spread before transmission.

Finally, the court finds that the prosecution history supports the construction that the specification and claim language require. During prosecution of the original '267 patent, which is upstream from all of the patents-in-suit, the patentee argued, in response to the examiner's rejection of certain claims:

Another disclosed distinction is that the access preamble here is itself a form of code data (e.g. a signature) **that is spread** in essentially the same manner as other data.

¹⁴See claims 27-29, 42-44, 51-52, 59-60 of the '267 patent, and claims 11-13, 16, 20, 32-35, 37-38 of the '427 patent.

¹⁵See claims 27-29 of the '267 patent, and claims 11, 13, 33, 37, and 38 of the '427 patent.

(D.I. 227/290 at JA289) (emphasis added) Regarding proposed claims 47-49, which later issued as claims 27 and 29, the patentee opined:

Claims 47 and 49 have been **amended to more clearly point out** certain distinctions over the prior art. Specifically, claims 47 and 49 expressly require that the power levels of the preamble transmission are distinctly different. **These amended independent claims also require that the mobile transmission involves a spreading of an access preamble**. As noted, Ozluturk uses a continuous ramp-up instead of discrete power levels. Also, the short code and the access code used by Ozluturk do not spread or carry any type of preamble (or any other form of data). Hence, Ozluturk also does not spread an 'access preamble' as required by claims 47 and 49.

(D.I. 227/290 at JA291) (emphasis added) While the court does not find this language

to be a clear disavowal of subject matter, the fact that spreading was added "to more

clearly point out" a distinction over the prior art indicates that, even prior to amendment,

the patentee contemplated a preamble to be spread prior to transmission. The parties

have not submitted that any portion of the additional prosecution history from the '427

patent prosecution or the reexamination of the '267 patent is relevant to whether a

preamble or access preamble is spread before transmission.¹⁶

3. "Preamble"/"access preamble" is without message data

The parties dispute whether a preamble must be without message data.¹⁷ In its

¹⁶During reexamination, GBT submitted the construction from the Texas litigation. (D.I. 228/291 at JA797, 803) However, the court gives no weight to this submission, as it was a required disclosure. See 37 C.F.R. § 1.555.

¹⁷Defendants "do not dispute that the preamble . . . would not be understood to **contain** the type of message data the patents contemplate." (D.I. 210/286 at 19-20) Apple's expert, Dr. Kakaes, testified that "the preamble does not include a message." (D.I. 229/292 at JA1885, 219:8-220:3) Nevertheless, defendants opine that "nothing in the meaning of the term 'preamble' excludes or prohibits 'message data' (or anything else) from being transmitted **before or after** the preamble" (D.I. 210/286 at 19-20) (emphasis added)

invalidity determination, the Texas court rejected GBT's argument that the common and ordinary meaning of "preamble" should preclude message data from being included in or sent in conjunction with the preamble. *Nokia, Inc.*, 2007 WL 294176, at *1-2. The Texas court pointed out that "[p]laintiff does not cite the [c]ourt to anywhere in the specification or the claims that discuss the importance of sending a preamble alone;" it, therefore, declined to alter the previously agreed-upon construction of "preamble." *Id.* The Texas court further concluded that, because the asserted claims "do not exclude the transmission of a message or something else in addition to the preamble," and the IS-95 Standard taught transmitting a preamble and message together prior to the mobile station receiving an acknowledgment, the IS-95 Standard was an anticipatory prior art reference. *Id.* at *6.

The prosecution history of the original '267 patent did not distinguish any prior art reference on the basis that the claimed invention calls for "preamble only" transmissions. Thus, this portion of the prosecution history falls short of a clear disavowal of claim scope. However, the additional prosecution history that was not considered in the Texas litigation clearly establishes that, in order to traverse the IS-95 Standard, GBT disavowed message data being included in, or sent in conjunction with, the preamble.

The patentee asserted during reexamination that, "while IS-95 Standard does disclose . . . that each successive access probe is sent at a higher power level than the previous access probe, the access probe is a preamble plus a message. It is not just a preamble alone." (D.I. 228/291 at JA781-82) With respect to claims 27 and 28 of the '267 patent, the patentee argued: "As for the IS-95 Standard . . . , the preamble of the

present invention does not contain a message. The IS-95 Standard teaches sending the preamble and a message together and sending the acknowledgment to stop data transmission after receipt of a **preamble and message**." (*Id.* at JA784) The patentee incorporated this argument for independent claim 29, as well as several other claims. (*Id.* at JA781-82)

In its brief to the Board of Patent Appeals and Interferences, GBT again consistently asserted that, whereas each access probe in the IS-95 Standard is a preamble plus a message, the claimed preambles "do not include message data." (D.I. 228/291 at JA1160, JA1184, JA1194, JA1196) Therefore, GBT unequivocally took the position that the IS-95 Standard taught a preamble with message data and that its invention teaches a preamble without message data. In other words, GBT disclaimed subject matter during reexamination by arguing for a more narrow definition of "preamble" in order to traverse the IS-95 Standard prior art.

The written description supports the scope of the patentee's disclaimer. The specification provides that, "[u]pon receiving an [acknowledgement] the remote station starts transmission of its data." ("267 patent, col. 7:65-66) Figure 6 shows message data being sent after the acknowledgement signal is received. (*Id.*, fig. 6, col. 6:47-48) Therefore, based on the disclaimer during reexamination, which is consistent with the written description, a "preamble" must be without message data.

4. "Preamble"/"access preamble" does not necessarily comprise one or more codes that distinguish one access preamble from another

Finally, the court finds no support for GBT's assertion that a preamble is a signal that must "compris[e] one or more codes that distinguish one access preamble from

another." GBT argues that, during prosecution of the original '267 patent, it made an explicit disclaimer that a preamble must comprise one or more codes that distinguish one preamble from another. (D.I. 208/284 at 14-17) Specifically, GBT points to the same statement discussed *supra*, made in response to the examiner's rejection of proposed claims during the prosecution of the original '267 patent: "Another disclosed distinction is that the access preamble here **is itself a form of code data (e.g. a signature)** that is spread in essentially the same manner as other data." (D.I. 227/290 at JA289) (emphasis added) Rather than emphasizing the portion of the statement asserting that a preamble is spread, GBT emphasizes that a preamble "is itself a form of code data (e.g. a signature)" However, given the context of the statement, the patentee's intent was to make a distinction from Ozluturk on the nature of the spreading, not to limit a preamble to require distinguishing code. GBT does not point to anything in the new prosecution history that would constitute a disclaimer requiring a preamble to have distinguishing code.

Given that many mobile stations are sharing a channel to access a base station, GBT does not take an unreasonable view that it would be advantageous for the base station to be able to distinguish which preamble originated from which mobile station. However, the specification does not limit a preamble in such a way. The only time the specification arguably mentions distinguishable codes is when it teaches that the "preferred approach" is that codes "**can** be chosen so that identical codes are not used in the same locations for two different preambles." ('267 patent, col. 8:37-39) (emphasis added) The same discussion, however, teaches more generally that "[t]here

are many ways of generating preamble waveforms," and even recognizes the alternative (albeit less preferable) way, of using "a single repeating code in generating each preamble." (*Id.*, col. 8:19-20, 8:32-33)¹⁸ Such open language does not require a preamble to be comprised of one or more distinguishing codes, as GBT proposes.

5. Conclusion regarding "preamble"/"access preamble"

For the foregoing reasons, the court does not apply collateral estoppel to the claim limitations "preamble" or "access preamble." The limitations "preamble" and "access preamble" are both construed as "a signal for communicating with the base station that is spread before transmission and that is without message data."

B. "Discrete Power Level"

Defendants assert that "discrete power level" should be construed to mean "a constant distinct power level." (D.I. 193/279) GBT submits the limitation should be accorded its plain and ordinary meaning, but does not dispute defendants' proposed construction insofar as "discrete" is synonymous with "distinct." (*See* D.I. 212/288 at 11) ("The plain and ordinary meaning of 'discrete' is 'separate, distinct or non-continuous.") Therefore, the court focuses on whether a "power level" must also be "constant," as defendants propose.¹⁹

¹⁸GBT did not propose this limitation in the Texas litigation. As there is no new prosecution history regarding distinguishable codes in preambles and the specification provides no support for GBT's proposed limitation, the court is not inclined to depart from the Texas court's construction in this regard.

¹⁹It is noteworthy that GBT also initially agreed in the instant Civ. No. 10-428 case, as well as in the Texas litigation, that a "discrete power level" is "a constant distinct power level." (D.I. 210/286 at 25-26; D.I. 228/291 at JA820-31; D.I. 229/292 at JA2042, JA1888, JA1897, 1955) The Texas court did not construe "discrete power level." (*See* D.I. 228/291 at JA1237-54)

Defendants emphasize that the claims recite sending one preamble "at" a certain discrete power "level" and a next preamble "at" another higher discrete power "level." (D.I. 210/286 at 22) They contend that the plain meaning of this language is that the first preamble is sent "at" a power level which is constant and the next preamble is sent "at" a different power level that is constant. (*Id.*) While the court is not persuaded that the plain meaning so limits "discrete power level," the court agrees with defendants that the intrinsic evidence requires a "power level" to be "constant."

The specification discloses only one embodiment for ramping up successive preambles. Figure 6 shows each successive preamble at a different power level, P₀,

 P_1 , and P_2 :

FIG. 6 illustratively shows the common-packet channel access burst format, for each access-burst signal. . . . [A] first segment has a first preamble and pilot, at a first power level P_0 . A second segment has a second preamble and a second pilot, at a second power level P_1 . The third segment has a third preamble and a third pilot at a third power level P_2 .

('267 patent, fig. 6, col. 5:59-6:10) The specification further teaches that "power is increased in time **from preamble to preamble in a step-wise manner**. The transmitted power during **each** preamble is **constant**." (*Id.*, col. 7:49-51) (emphasis added) This language unambiguously describes separate preambles, where each preamble is at a power level that is "constant," and the step-wise characteristic is seen from one preamble to another, not within a single preamble. Although claims may not always be limited to a disclosed embodiment, the patents-in-suit do not describe any other method of ramping up the power level besides that detailed in the written

description and shown in the figures.²⁰

Indeed, if there is any doubt, the prosecution history also shows that a "discrete power level" must be at a "constant" level. GBT's original '267 patent application, filed March 22, 1999, had a specification that taught the above-mentioned embodiment in which a first, second, and third preamble have a first power level P_0 , second power level P_1 , and third power level P_2 , respectively. (D.I. 227/290 at JA70-71) However, none of the original four claims recited the power of transmitted preambles. (*See id.* at JA-137-42) In several preliminary amendments prior to the initial office action, the patentee replaced the original claims with new claims "more precisely identifying the inventive subject matter of this case, specifically as it relates to use of preamble segments at different power levels and an acknowledgment signal" (*Id.* at JA194; *see also id.* at JA166-94)

Following rejection of certain claims for obviousness, the patentee filed an amendment on May 6, 2002 adding proposed claims 43-49 (which issued as claims 23-26 and, after amendment, claims 27-29), each reciting transmitting "a first preamble . . . at a first power level" and a second preamble "at a second power level . . . higher than the first power level" (claims 43, 47-49) or "transmitting a preamble at a **set** power level" and "increasing power level to a new **set** power level, and repeating the transmitting

²⁰Claims 13, 31, and 36-37 of the '427 patent recite "a plurality of constant power levels." However, these "constant power levels" are in the context of "an access-burst ... signal comprising a plurality of segments with a plurality of constant power levels, each segment comprising [an] ... access preamble" This claim language does not create any issue under the doctrine of claim differentiation, as it applies to segments of access-burst signals. Rather, the use of "constant" in those claims is consistent with the court's construction because even the "power level" of each "segment," which comprises an access preamble, must be "constant."

step" (claims 44-46). (*Id.* at JA218-20) (emphasis added) The examiner rejected claims 43-48 as obvious or anticipated in view of U.S. Patent No. 5,841,768 to Ozluturk et al. ("Ozluturk").

Ozluturk teaches a spread spectrum communication system for controlling initial power ramp-up. As interpreted by the examiner, it "transmits an initial minimum power level that is guaranteed to be lower than the required power level by the base station, and continues transmitting an increased power level until base station sends an indication (claimed acknowledgment)." (*See id.* at JA236) In response to the examiner's rejection, GBT asserted that independent claims 43 and 44 were patentable over Ozluturk because they

specify transmission of **each** preamble at **one** "level." Stated another way, the entire first preamble transmission is at a **one** "first power level," and the entire second preamble transmission is at a **one** "second power level." Claim 44 specifies transmitting a preamble at a **set** power level and repeating the transmitting step at a new **set** level. The second (or new **set**) power level is higher than the first power level (or increased). A continuous ramp-up extending through a preamble transmission, as in Ozluturk, would result in a preamble transmission that continues to increase (e.g. in an inclined linear manner) during the respective preamble transmission, not **a complete transmission of a preamble at either "level," as claimed**.... The express claim language therefore **excludes continuous power ramp up through one or more preamble transmissions**, e.g. as a continuously increasing signal during each ongoing spreading code transmission, as is apparently the case in the Ozluturk system.

(Id. at JA290) (citations omitted) (emphasis added) The patentee also stated, "Ozluturk

teaches continuously repeating transmissions and a linear continuous power ramp-up.

Continuous transmission and ramp-up does not provide preambles, each of which is

completely at one of the different levels, or separations between preamble

transmission." (*Id.* at JA289) (emphasis added) Therefore, the patentee narrowed the claim limitation to a power level that is at a single or set level, or "constant."²¹

GBT's statement that its claim language "excludes continuous power ramp up through one or more preamble transmissions" (*id.* at JA290), alone, may have been sufficient to traverse the continuous linear ramp-up taught in Ozluturk without going further and restricting each preamble to a single constant power level. However, the Federal Circuit has held:

[T]here is no principle of patent law that the scope of a surrender of subject matter during prosecution is limited to what is absolutely necessary to avoid a prior art reference that was the basis for an examiner's rejection. To the contrary, it frequently happens that patentees surrender more through amendment than may have been absolutely necessary to avoid particular prior art. In such cases, we have held the patentees to the scope of what they ultimately claim, and we have not allowed them to assert that claims should be interpreted as if they had surrendered only what they had to.

Norian Corp. v. Stryker Corp., 432 F.3d 1356, 1361-62 (Fed. Cir. 2005). Even if GBT

could have traversed Ozluturk with its assertion that "discrete power level" simply

excludes "linear continuous" power ramp-up, such a prospect is no longer available.

Therefore, the intrinsic evidence requires each "discrete power level" to be distinct and constant. The specification uses the word "constant" and teaches an embodiment consistent with the court's construction. Furthermore, the arguments that GBT made during prosecution to traverse Ozluturk extracted the word "level," as used in "power level," to indicate that each preamble is transmitted at a power "level" that is

²¹The specification and patentee's statements also support the parties' agreement that each power level must be "distinct." The specification provides that the preambles are transmitted in a "step-wise manner" ('267 patent, col. 7:49-51), and the prosecution history confirms that each preamble is transmitted at a different, subsequently higher, power level. (D.I. 227/290 at JA289)

entirely constant. Accordingly, the court construes "discrete power level," consistent with defendants' proposed construction, to mean "a constant distinct power level."²²

V. CONCLUSION

For the foregoing reasons, the court interprets the claim language in the '267 and '427 patents, for both Civ. Nos. 10-428 and 11-165, in the manner set forth above. An appropriate order shall issue.

²²"Discrete power level" could alternatively be construed synonymously using GBT's words from the prosecution history file, such as "a distinct power level that is completely at one power throughout." However, the construction of a "distinct power level that is constant" uses the word "constant" from the specification and will be more straightforward for jurors to understand and apply.