United States District Court,
D. Delaware.

MLMC, LTD,
Plaintiff.
v.
AIRTOUCH COMMUNICATIONS, INC., Alltel Corporation, GTE Corporation, GTE Wireless, Incorporated, Primeco Personal Communications, L.P., Cellco Partnership d/b/a Verizon Wireless, Alltel Communications Inc., 360 Communications Company, Vodafone Airtouch Licenses, L.L.C., and Verizon Wireless (VAW), L.L.C,
Defendants.

No. 99-781-SLR

Nov. 6, 2001.

Owner of patent for mobile telephone system sued competitors for infringement. On defendants' motion for summary judgment, the District Court, Sue L. Robinson, Chief Judge, held that patent, calling for unenciphered signalling communications and enciphered voice communications, was not infringed by accused devices that used only encoded communications.

Motion granted.

4,829,554. Cited.

Steven J. Balick and Steven T. Margolin, of Ashby & Geddes, Wilmington, Delaware. Counsel for Plaintiff. Of Counsel: Edward W. Goldstein, John T. Polasek, Colin E. Errington, and Chris M. Faucett, of Goldstein & Polasek, LLP, Houston, Texas, and Randy J. McClanahan of McClanahan & Clearman, LLP, Houston, Texas.

Josy W. Ingersoll, John W. Shaw, and Christian Douglas Wright, of Young, Conaway, Stargatt & Taylor, LLP, Wilmington, Delaware. Counsel for Defendants. Of Counsel: John M. Desmarais and Robert A. Appleby, of Kirkland & Ellis, New York City.

MEMORANDUM OPINION

SUE L. ROBINSON**, Chief Judge.**

I. INTRODUCTION

In this action, plaintiff MLMC, Ltd. ("MLMC") alleges that defendants FN1 infringe United States Patent No. 4,555,805 (the " '805 patent") by operation of their Code Division Multiple Access ("CDMA") cellular

telephone systems, which include equipment manufactured by Lucent Technologies, Inc. The court has jurisdiction over this action pursuant to 35 U.S.C. s.s. 271 and 281 and 28 U.S.C. s. 1338(a).

FN1. Airtouch Communications, Inc.; Alltel Corporation; GTE Corporation; GTE Wireless, Incorporated; Primeco Personal Communications, L.P.; Cellco Partnership d/b/a Verizon Wireless; Alltel Communications Inc.; 360 Communications Company; Vodafone Airtouch Licenses, L.L.C.; and Verizon Wireless (VAW), L.L.C.

Currently before the court are claim construction briefs filed by the parties and various motions for summary judgment. For the following reasons, the court shall grant defendants' motion for summary judgment of nonfringement of the '805 patent (D.I.408); denies as moot the motion for summary judgment of invalidity of claims 18-20 of the '805 patent (D.I.406); and denies as moot the motion for summary judgment of laches (D.I.410) with respect to the '805 patent.FN2

FN2. The motion for summary judgment of laches (D.I.410) was denied with respect to the '554 patent in a separate order issued by this court.

II. BACKGROUND

A. Technology

The technology at issue relates to cellular telephone systems. Cellular telephone systems have three primary components: (1) mobile telephone units (also referred to as remote mobile stations); (2) base stations (also referred to as cell stations or central stations); and (3) a central control station (sometimes referred to as a telephone switch). (D.I. 433 at 5) The central control station acts as an interface between the public switched telephone network and the base stations. The base station handles radio communications to and from mobile telephones located in the base station's geographic area.

In most cellular telephone systems, the base station broadcasts "paging" signals to notify a mobile telephone that it has a call. (D.I. 432 at 5) A mobile telephone wishing to initiate a call sends "access" signals to the base stations. (Id.) After a paging or access signal is received, the base station and mobile telephone establish "traffic" channels to carry voice transmissions. (Id.; D.I. 445 at 5)

The defendants' accused cellular telephone systems employ the CDMA digital technology.FN3 (D.I. 409 at 6; D.I. 445 at 4) CDMA cellular communication networks operate in accordance with the TIA/EIA-95-B cellular communications industry standard ("TIA/EIA-95 standard"). (D.I. 409 at 6; D.I. 445 at 4; D.I. 424 at 7) According to the TIA/EIA-95 standard, "forward" channels transmit communications from the base station to the mobile telephone, and "reverse" channels transmit communications from the mobile telephone to the base station. (D.I. 409 at 6) The TIA/EIA-95 standard specifies that paging and access channels carry call-setup (i.e., signaling) transmissions and traffic channels carry voice communications. (Id.; D.I. 424 at Tab 2, p. 7)

FN3. Specifically, the operation of certain Lucent equipment in defendants' cellular systems is alleged to infringe the '805 patent. The complaint also included cellular systems operating Motorola and Nortel equipment, but the claims related to Motorola and Nortel equipment have been settled by the parties.

Communications on the paging and forward traffic channels are logically scrambled before transmission through application of a "long code." (D.I. 409 at 6; D.I. 424 at Tab 2, pp. 7-8) Signals on the access and reverse traffic channels undergo both spreading and logical scrambling through application of a "long code." (D.I. 409 at 6; D.I. 424 at Tab 2, pp. 7-8) The codes used to scramble communications on the paging and access channels are specific to a base station and used by all mobiles communicating with that base station. (D.I. 409 at 7) The codes used to scramble communications on the traffic channels are specific to each mobile telephone. (D.I. 409 at 7)

The base station and mobile telephones generate the long codes required to scramble transmissions by applying "long code masks," the formats for which are defined by the TIA/EIA-95 standard. (D.I. 424 at Tab 2, p. 8, 9) The TIA/EIA-95 standard defines different long code masks for the paging, access, and traffic channels. (D.I. 424 at Tab 2, p. 9) Each long code mask includes one or more variable fields that are determined based on information transmitted over the air by the base station or the mobile telephone. (Id.)

The long code masks for the two signaling channels (paging and access) include variables specific to the particular base station transmitting and receiving the signaling messages. (D.I. 447 at A-129; D.I. 424 at Tab 2, p. 9; D.I. 419 at A8-A9, A19) Each base station continuously broadcasts the variable information a mobile telephone needs to construct the signaling channel long code masks and communicate with that specific base station.FN4 (D.I. 447 at A146; D.I. 424 at Tab 2, p. 9)

FN4. The base station broadcasts the information needed to construct the paging long code mask over the "pilot" and "sync" channels, while it broadcasts the information needed to construct the access long code mask over the pilot, sync, and paging channels. (D.I. 424 at Tab 2, p. 11)

The long code mask for the traffic channel requires the unique Electronic Serial Number ("ESN") of a specific mobile telephone. (D.I. 424 at Tab 2, p. 10; D.I. 447 at A130; D.I. 419 at A20) The ESN is transmitted over the paging and access channels during initialization and call setup. (D.I. 424 at Tab 2, p. 10; D.I. 447 at A146) The base station and the mobile telephone then use the ESN to construct the long code mask and create the code required to scramble voice transmissions to and from that particular mobile telephone. (D.I. 424 at Tab 2, p. 10; D.I. 447 at A130)

CDMA test equipment is available which can receive and decode the pilot and sync transmissions from multiple base stations and display the base-station-specific information needed to construct the paging channel long code mask. (D.I. 447 at A124) This in turn allows an "eavesdropper" to decode the paging transmissions from a particular base station, obtain the information needed to construct the access channel and traffic channel long code masks, and then decode the access and voice transmissions. (Id.)

B. '805 Patent

The '805 patent generally describes a mobile communications system "in which communications channel[s] establishing signalling [sic] transmissions between the central [base] and remote [mobile] stations are conducted in a clear (unenciphered) mode and subsequent voice transmissions between the central and remote stations are conducted in a secure (enciphered) mode." ('805 patent, Abstract) The specific claims at issue in this case, independent claim 18 and dependent claims 19 and 20, teach a method of communicating between a central station (i.e., base station) and a plurality of remote mobile stations (i.e., mobile

telephones) in a cellular telephone system.FN5

FN5. **Claim 18:**
A method of communicating between a central station and plurality of remote mobile stations in a radio frequency mobile telephone communication system comprising the steps of:

(a) establishing a sending and receiving information communications path between the central station and a selected one of the remote mobile stations in response to unenciphered signalling communications between the central stations and the selected remote station over one of a predetermined plurality of communication paths,; [sic] and
(b) sending and receiving enciphered information over the communications path between the central station and the selected remote mobile station, said information being enciphered at the central station in accordance with a code unique to the selected remote mobile station and being applied to the communication path by the central station in response to establishment of the communicating path or in response to receipt by the central station of an unenciphered signal from said selected remote mobile station requesting secure service.

Claim 19:
A method as in claim 18 wherein the information is enciphered and sent at the central station by the steps of:

(a) identifying the address of the selected remote mobile station from an unenciphered signalling communication;
(b) generating the code unique to the selected remote mobile station responsively to the identified address; and
(c) using the code to encipher information and sending the enciphered information from the central station to the selected remote mobile station over the established communications pth.

Claim 20:
A method as in claim 18 wherein said information is enciphered and sent to said selected remote mobile station by the steps of:

(a) detecting the presence of an enciphered information signal received from the central station; and
(b) enciphering information signals in accordance with a code unique to the selected remote mobile station and sending them from the remote mobile station to the central station in response to the detection of an enciphered information signal received from the central station.
In the system described by the patent, signaling channels are used to initiate calls between the base station and the mobile stations, and voice channels are used to carry voice communications between the base station and mobile stations. (D.I. 447 a A127; '805 patent, col. 3, lns. 31-38, 62-64; col. 4 lns. 1-8, 23-26) Signaling communications are in a clear, i.e., unenciphered, mode. ('805 patent, col. 1, lns. 26-31; col. 3, 18-24, col. 8,

lns. 45-56; col. 10, lns. 67-68 in conjunction with col. 11, lns. 1-6) In contrast, voice transmissions occur in a secure, or enciphered, mode. ('805 patent, col. 1, lns. 20-21; col. 2, lns. 23-29; col. 4, lns. 23-31)

The patent distinguishes the invention from prior art systems where both signaling and voice transmissions occurred in clear, unenciphered mode ('805 patent, col. 1, lns. 26-31) or in an enciphered mode that employed a common code used by all mobiles in the system. ('805 patent, col. 1, lns. 34-37) The prior art system employing all unenciphered transmissions is not secure from monitoring by others. ('805 patent, col. 1, lns. 29-31) The prior art system employing all enciphered transmissions using a common code provides security only against outsiders to the system, not security from other mobile stations within the system. ('805 patent, col. 1, lns. 40-54) Another disadvantage of the "all enciphered" system is that signaling transmissions must be enciphered:

[T]he signalling [sic] portion of the system require[s] more stringent system design requirements since accurate enciphering and deciphering of transmitted and received signalling [sic], e.g., tone, signals is more difficult than is the case for audio (voice) signals, causing increased signalling [sic] errors between base station and remote station.

('805 patent, col. 1, lns. 55-62)

The patent defines "secure" mode as "a transmission which has been enciphered with a particular code for transmission and which must be deciphered with a corresponding code," whereas it defines "clear" mode as "a transmission of information in an unenciphered form." ('805 patent, col. 3, lns. 18-24 (emphasis added)) The patent further explains that "enciphering" includes logically scrambling the digital version of the analog voice signal:

A programmable **secure** voice module is an **enciphering/deciphering** device.... The enciphering portion of a secure voice module includes an internal analog-to-digital converter for converting the applied analog signal to digital format and then a **scrambling** device for **enciphering** the digitized version of the analog signal in accordance with the applied enciphering code signal. Thus, one output of the secure voice module is **an enciphered i.e. [sic]_logically scrambled,** digital version of an applied audio signal. The deciphered portion of a secure voice module includes a digital **deciphering** device receiving an enciphered digital signal and a **deciphering code for unscrambling** an applied digital enciphered signal.

('805 patent, col. 4, ln. 64 to col. 5, lns 3-11 (emphasis added)) The patent also makes clear that enciphering of the voice transmissions can be accomplished using either a unique code (specific to each mobile station)or a common code (shared by all mobile stations in the system):

The **unique code** [assigned to the mobile station] can also be used by the mobile station to encipher voice transmissions to the base station, with the base station using the **unique code** to decipher an incoming voice transmission from a particular mobile station. Alternatively, all mobile stations may encipher outgoing voice transmission [sic] with a **common code,** which is also used by the base station to decipher incoming voice transmissions.

('805 patent, col. 2, lns. 38-44 (emphasis added); *see also* col. 3, lns. 54-56, col. 6, lns. 50-55, col 10, lns. 40-43)

C. Prosecution History

The '805 patent issues from application no. 489,025, a continuation of application no. 130,345 ("the parent application"). During prosecution of the parent application, the examiner rejected claims as obvious in light of the prior art and, in response to these rejections, the patent applicant Harris Corporation ("Harris") amended its claims to add the limitation that signaling transmissions were "unenciphered." (D.I. 435 at Tab B, p. 67-9) For example, Harris amended what is now asserted claim 18 (parent application claim 23) to add the requirement that the signaling communications be "unenciphered," as shown in the amended claim: FN6

FN6. Language added to the originally filed claim is underlined while language deleted from the originally filed claim is surrounded by hard brackets.

(a) establishing a sending and receiving information communications path...in response to *unenciphered* signalling communications...;
(b) sending and receiving enciphered information over [said] *the* communications path...in response to establishment of [said] *the* communicating path or in response to receipt [of a signal] by [said] *the* central station *of an unenciphered signal from said selected remote mobile station* requesting secure service.

(D.I. 435 at Tab B, p. 61) Harris also amended asserted claim 19 (patent application claim 24) to require unenciphered signaling communications:
(a) identifying the address of [said] *the* selected remote *mobile* station *from an unenciphered signalling [sic] communication ...*

(D.I. 435 at Tab B, p. 62)
In distinguishing its invention from prior art, Harris repeatedly emphasized that, in its invention, signaling communications were uncoded and voice communications were coded. For example, in distinguishing its invention from the "Cooper patent," Harris wrote: FN7

FN7. The Cooper patent is U.S. Patent 4,222,115 to Cooper et al. It discloses a cellular system that uses technology similar to the modern CDMA systems wherein communication occurs using "spread-spectrum" codes. Cooper uses a common code for signaling transmissions and a code unique to each mobile unit for voice transmissions. (D.I. 432 at 25-6)

[T]he Cooper et al patent is directed to a cellular mobile communication system in which each of the mobile units has a unique set of time-frequency coded waveforms (i.e., frequency hopping) used both for transmission and reception. Each of the mobile units thus **operate continuously in a coded transmission mode.**
The system of the **present invention establishes an uncoded communication link** between a mobile station and a base station, and thereafter and at the request of one of the mobile stations, **switches both the base station and the mobile station to a code unique** to that particular mobile station. Nothing like this concept is disclosed in the cited patents....

(D.I. 435 at Tab B, p. 68 (emphasis added))
In another response to the patent examiner, Harris distinguished its system as follows:

[T]he system of the present invention is not directed to a secure communications system in the sense that all of the transmissions from the base station and from the mobile station are "**scrambled**." To the contrary, the

system of the present invention **establishes communications in the clear or unenciphered mode and subsequently encodes only the voice transmissions.**

(D.I. 435 at Tab B, p. 78 (emphasis added))

After Harris filed a continuation application with the claims ultimately issued as the '805 patent, and the patent examiner continued to reject those claims, Harris filed an appeal. In its appeal brief, Harris again argued that its claims **established communications** with **uncoded** signals, whereas prior art systems encoded **all** transmissions:

... **[A]ll communications** in the [prior art] systems **are encoded.**

If, as alleged by the Examiner as obvious, Rosenblum encoded its signal to the remote computer and received an encoded signal therefrom with the code of the called station and then encoded its signal to the called subscriber, such system clearly would not anticipate claim 1. Again by way of example, such system would not permit a non-subscriber to call a subscriber, **would not permit uncoded signals** ...

More importantly, the combination would not even recognize the problem solved by the present invention where the public, and certainly all subscribers, may receive messages from a base station to a called station. The combination would not even recognize the problem where *a* **communication channel must be established by uncoded signals available to the public** and certainly to all subscribers.

(D.I. 435 at Tab b, p. 209 (emphasis added))

III. STANDARD OF REVIEW

A court shall grant summary judgment only if "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed.R.Civ.P. 56(c). The moving party bears the burden of proving that no genuine issue of material fact exists. *See* Matsushita Elec. Indus. Co. v. Zenith Radio Corp., 475 U.S. 574, 586 n. 10, 106 S.Ct. 1348, 89 L.Ed.2d 538 (1986). "Facts that could alter the outcome are 'material,' and disputes are 'genuine' if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct." Horowitz v. Fed. Kemper Life Assurance Co., 57 F.3d 300, 302 n. 1 (3d Cir.1995) (internal citations omitted). If the moving party has demonstrated an absence of material fact, the nonmoving party then "must come forward with 'specific facts showing that there is a genuine issue for trial.' " Matsushita, 475 U.S. at 587, 106 S.Ct. 1348 (quoting Fed.R.Civ.P. 56(e)). The court will "view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion." Pa. Coal Ass'n v. Babbitt, 63 F.3d 231, 236 (3d Cir.1995). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a jury reasonably to find for the nonmoving party on that issue. *See* Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 249, 106 S.Ct. 2505, 91 L.Ed.2d 202 (1986). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *See* Celotex Corp. v. Catrett, 477 U.S. 317, 322, 106 S.Ct. 2548, 91 L.Ed.2d 265 (1986).

IV. DISCUSSION

A. Claim Construction

[1] Claim construction is a matter of law. *See* Moore U.S.A., Inc. v. Standard Register Co., 229 F.3d 1091, 1105 (Fed.Cir.2000); Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir.1995) (en banc), *aff'd,* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996). "Proper claim construction entails an analysis of a patent record's intrinsic evidence-the claim language, the written description, and the prosecution history. If the meaning of a claim is unambiguous from the intrinsic evidence, then a court may not rely on extrinsic evidence for purposes of claim construction." Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 955 (Fed.Cir.2000) (citations omitted).

[2] [3] The parties dispute the meaning of two key limitations in the '805 patent claims: "enciphered" and "unenciphered." The court construes **enciphered** as follows:

Transmission of information in a secure mode; i.e., the transmitted output is encoded (as by logically scrambling the signal).

('805 patent, col. 2, lns. 30-46, 54-58; col. 3, lns. 20-24; col. 5, lns. 9-11; D.I. 435 at Tab B, pp. 68, 78, 79-80) The court construes **unenciphered** as follows:

Transmission of information in a clear, not secure mode; i.e., the transmitted output is uncoded.

('805 patent, col. 1, lns. 28-29; col. 3, lns. 18-19; D.I. 435 at Tab B, pp. 68, 78, 209)

The claims, written description, and prosecution history, when read together, clearly show Harris equated unenciphered transmissions with being "clear" and uncoded and equated enciphered transmissions with being encoded. The patent specification explicitly defines "clear" with the term "unenciphered." ('805 patent, col. 3, 18-19) In addition, Harris used the term "uncoded" in place of "unenciphered" when describing signaling transmissions during patent prosecution. Harris did this to distinguish the invention from prior art in which signaling transmissions were "coded." (D.I. 435 at Tab B, pp. 68, 209)

In the '805 patent specification, the term enciphered is equated with being encoded, whether by a unique code assigned to each mobile or by a common code. (*See* '805 patent, col. 2, lns. 30-46, 54-58; col. 3, lns. 20-24) Harris also used the term "coded" in place of the term "enciphered" during patent prosecution. (D.I. 435 at Tab B, pp. 68, 78, 79-80)

Plaintiff argues that the construction of unenciphered and enciphered should reflect the level of security that a transmission provides, such that the difference between the two terms depends on how "readily detected and monitored" a transmission is. (D.I. 433 at 3) Plaintiff claims that enciphered transmissions necessarily include "some **significant** attribute of security or privacy" and that, to provide significant security, transmissions "cannot **easily** be detected and monitored by others." (Id. at 21-2) (emphasis added)

The court disagrees. Plaintiff's suggested constructions of the limitations are subjective and do not comport with Harris' own use of the terms in the patent and during patent prosecution. Harris recognized that different types of codes provided differing levels of security, but Harris never suggested that this defined the difference between the terms "unenciphered" or "enciphered." Rather, Harris drew the line between "unenciphered" and "enciphered" as being either **un**secure or secure, not at some subjective level of security that would vary with the sophistication of potential eavesdroppers.

B. Infringement of the '805 Patent

[4] [5] "A patent infringement analysis involves two steps: claim construction and application of the properly construed claim to the accused product." KCJ Corp. v. Kinetic Concepts, Inc., 223 F.3d 1351, 1355 (Fed.Cir.2000). Claim construction is a question of law while infringement is a question of fact. *Id*. The patentee must establish infringement by a preponderance of the evidence. *See, e.g.,* Braun Inc. v. Dynamics Corp., 975 F.2d 815, 819 (Fed.Cir.1992). "To establish literal infringement, every limitation set forth in a claim must be found in an accused product, exactly." Southwall Tech., Inc. v. Cardinal IG Co., 54 F.3d 1570, 1575 (Fed.Cir.1995). "An accused device that does not literally infringe a claim may still infringe under the doctrine of equivalents if each limitation of the claim is met in the accused device either literally or equivalently." Sextant Avionique, S.A. v. Analog Devices, Inc., 172 F.3d 817, 826 (Fed.Cir.1999). An infringement issue is properly decided upon summary judgment when no reasonable jury could find that every limitation recited in the properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents. *See* Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353 (Fed.Cir.1998)

[6] [7] A finding of infringement under the doctrine of equivalents may be barred, however, if the patentee attempts to reclaim subject matter that it previously surrendered during prosecution. *See* Hilgraeve Corp. v. McAfee Assocs., Inc., 224 F.3d 1349, 1355 (Fed.Cir.2000) ("[P]rosecution history estoppel bars recapture of subject matter surrendered during prosecution."). In a recent *en banc* opinion, the Federal Circuit held that "a narrowing amendment made for any reason related to the statutory requirements for a patent will give rise to prosecution history estoppel with respect to the amended claim element." Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., 234 F.3d 558, 566 (Fed.Cir.2000), *cert. granted,* 533 U.S. 915, 121 S.Ct. 2519, 150 L.Ed.2d 692 (2001). The court went on to hold:

When a claim amendment creates prosecution history estoppel with regard to a claim element, there is no range of equivalents available for the amended claim element. Application of the doctrine of equivalents to the claim element is completely barred (a "complete bar").

Id. at 569. The application of prosecution history estoppel is a question of law. K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1367-68 (Fed.Cir.1999). If the court "determine[s], upon reviewing the relevant prosecution history, that estoppel applies, doctrine of equivalents infringement is precluded as a matter of law, and summary judgment of noninfringement is appropriate." Spectrum Int'l, Inc. v. Sterilite Corp., 164 F.3d 1372, 1380 (Fed.Cir.1998).

[8] The dispositive issue in the alleged infringement of the '805 patent by defendants' cellular systems is whether the signaling communications in the CDMA systems used by defendants are "unenciphered." Claim 18, for example, requires establishment of voice communications in response to **unenciphered signaling communications.** If defendants' systems do not employ unenciphered signaling communications, as that limitation has been construed by the court, they do not literally infringe the claim. Claims 19 and 20 are dependent on claim 18; if defendants' systems do not infringe claim 18, they do not infringe the dependent claims either.

The signaling communications in defendants' CDMA systems, which comply with the "TIA/EIA-95 Standard," are encoded and decoded using the paging channel or access channel "long code masks." The voice transmissions in the CDMA systems employ similar "long code masks" to encode and decode voice

communications. Plaintiff acknowledges that both the signaling channels and voice channels in CDMA systems are "coded." (D.I. 445 at 11) However, plaintiff argues that the signaling and voice channel codes are distinguishable as "unsecure" and "secure" and, therefore, "unenciphered" and "enciphered." FN8

FN8. The court takes as true, for purposes of this motion, plaintiff's assertions that encoding and decoding signaling transmissions require only information continuously broadcast from each base station, and that the information for the paging code can be obtained through monitoring and decoding the pilot and sync channels with commercially available CDMA test equipment, while the information for the access code can be obtained through monitoring and decoding of the pilot, sync, and paging channels. (D.I. 445 at 10-12) The court also accepts plaintiff's assertion that the mobile telephone ESN is broadcast infrequently and is difficult to obtain. (Id. at 12; D.I. 447 at A146-7) Nevertheless, as plaintiff's expert acknowledges, the information required to encode and decode "secure" voice transmissions, i.e., the mobile telephone ESN, is broadcast on the paging channel, a channel that plaintiff considers unsecure; information required to encode and decode the access channel, one of the signaling channels, is also broadcast on the paging channel. (D.I. 445 at 10; D.I. 447 at A129-130)

The court finds plaintiff's "security" argument unpersuasive. As plaintiff admits, both signaling and voice transmissions are encoded, and they are encoded using the same type of predefined, published long code mask. To obtain the variable information needed to construct the signaling and voice transmission codes, a potential "eavesdropper" must use specialized test equipment to monitor and decode transmissions on two or more channels. In addition, the variable information required to construct codes for one of the signaling channels, the access channel, is broadcast on the **same** channel as the variable information for the voice transmission codes, though the access channel variable information is broadcast more frequently. From these facts, the only reasonable conclusion is that any difference between the voice transmissions and the signaling transmissions is one of degree, i.e., **greater** security for voice transmissions than for signaling transmissions, not a complete **lack** of security for signaling transmissions. Decoding and "listening in" on a voice transmission may require more persistence and more steps than decoding and "listening in" on a paging transmission, but both require specialized equipment and the construction of a code using a predefined, published long code mask. The distinction between "listening in" on an access transmission and "listening in" on a voice transmission is even less discernible, because both require obtaining at least some code variables from broadcasts on the same channel, the paging channel; the only apparent difference is in how frequently the required information is broadcast.

Based on the above, the court finds that no genuine issue of material fact exists with respect to literal infringement and that summary judgment is appropriate as a matter of law. Defendants' CDMA systems do not use unenciphered signaling transmissions and, thus, do not literally meet all limitations of claim 18.

In addition, the court finds that Harris made narrowing amendments to limitations in claim 18 for a reason related to the statutory requirements for a patent when it added "unenciphered." Accordingly, plaintiff is estopped from asserting infringement under the doctrine of equivalents. *See* Festo Corp., 234 F.3d at 566, 569.

Because no literal infringement exists and the doctrine of equivalents is unavailable to plaintiff, the court grants defendants' motion for summary judgment of noninfringement of claims 18, 19, and 20 of the '805 patent.

C. Miscellaneous

Because summary judgment is granted on the noninfringment motion, the defendants' motions for summary judgment of invalidity of the '805 patent and laches with respect to the '805 patent are denied as moot. In addition, defendants' counterclaims related to the '805 patent are dismissed without prejudice. *See* Phonometrics, Inc. v. Northern Telecom, Inc., 133 F.3d 1459, 1468 (Fed.Cir.1998) (dismissing invalidity counterclaim as moot after granting summary judgment on noninfringement claim).

V. CONCLUSION

For the reasons discussed above, the court shall grant defendants' motion for summary judgment of nonfringement of the '805 patent; deny as moot the motion for summary judgment of invalidity of claims 18-20 of the '805 patent; and deny as moot the motion for summary judgment of laches with respect to the '805 patent. The defendants' counterclaims with respect to the '805 patent are dismissed without prejudice.

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