UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

MONDIS TECHNOLOGY LTD, Plaintiff, v. LG ELECTRONICS, INC. et al., Defendants.	Civil Action No. 15-4431 (SRC) **OPINION & ORDER**

CHESLER, U.S.D.J.

This matter comes before the Court on the application for claim construction by Plaintiff Mondis Technology Ltd ("Mondis") and Defendants LG Electronics, Inc. and LG Electronics U.S.A., Inc. (collectively, "LG"). In this patent infringement suit involving a display device patent, the parties seek construction of claims in U.S. Patent No. 7,475,180 ("the '180 patent").

ANALYSIS

I. The law of claim construction

A court's determination "of patent infringement requires a two-step process: first, the court determines the meaning of the disputed claim terms, then the accused device is compared to the claims as construed to determine infringement." Acumed LLC v. Stryker Corp., 483 F.3d 800, 804 (Fed. Cir. 2007). "[W]hen the district court reviews only evidence intrinsic to the patent (the patent claims and specifications, along with the patent's prosecution history), the judge's determination will amount solely to a determination of law." Teva Pharms. USA, Inc. v. Sandoz, Inc., 135 S. Ct. 831, 841 (2015).

The focus of claim construction is the claim language itself:

> It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude. Attending this principle, a claim construction analysis must begin and remain centered on the claim language itself, for that is the language the patentee has chosen to 'particularly point[] out and distinctly claim[] the subject matter which the patentee regards as his invention.'

Innova/Pure Water, Inc. v. Safari Water Filtration Sys., 381 F.3d 1111, 1115-1116 (Fed. Cir. 2004) (citations omitted).

The Federal Circuit has established this framework for the construction of claim language:

> We have frequently stated that the words of a claim 'are generally given their ordinary and customary meaning.' We have made clear, moreover, that the ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application. The inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline from which to begin claim interpretation. . .
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> In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words. In such circumstances, general purpose dictionaries may be helpful. In many cases that give rise to litigation, however, determining the ordinary and customary meaning of the claim requires examination of terms that have a particular meaning in a field of art. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean. Those sources include the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.

Phillips v. AWH Corp., 415 F.3d 1303, 1312-1314 (Fed. Cir. 2005) (citations omitted).

II. Claim construction of the disputed terms

The parties dispute the meaning of claim terms in claims 14 and 16. Claim 14 states:

> A display unit for displaying an image based on video signals inputted from an externally connected video source, comprising:
>
> a video circuit adapted to display an image based on the video signals sent by the externally connected video source;
>
> a memory in which at least display unit information is stored, said display unit information including an identification number for identifying at least a type of said display unit and characteristic information of said display unit;
>
> and a communication controller capable of bi-directionally communicating with said video source; wherein said communication controller is capable of communicating said display unit information other than said characteristic information to said video source.

A. Is the preamble of claim 14 limiting?

Mondis contends that the preamble to claim 14 should be construed as a claim limitation. This argument is questionable from the start because Mondis fails to articulate what limitation this would add to the claim, if the Court agreed.

"A preamble is generally construed to be limiting if it recites essential structure or steps, or if it is necessary to give life, meaning, and vitality to the claim." Proveris Sci. Corp. v. Innovasystems, Inc., 739 F.3d 1367, 1372 (Fed. Cir. 2014). "Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation." Rowe v. Dror, 112 F.3d 473, 478 (Fed. Cir. 1997). "If the preamble adds no limitations to those in the body of the claim, the preamble is not itself a claim limitation and is irrelevant to proper construction of the claim." IMS Tech., Inc. v. Haas Automation, Inc., 206 F.3d 1422, 1434 (Fed. Cir. 2000).

Mondis makes two arguments in support. First, it argues that the preamble language that

identifies the invention as a "display unit" is an "essential feature." This fails because "display unit" is merely a name for the invention, not an essential feature. The first listed element of claim 14 is: "a video circuit adapted to display an image based on the video signals sent by the externally connected video source."[1] Mondis does not even posit that this element would be misunderstood in the absence of the preamble, nor explain how the preamble provides "essential structure." Similarly, in IMS, the Federal Circuit held: "The phrase 'control apparatus' in the preamble merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention." 206 F.3d at 1434.

"[A] preamble generally is not limiting when the claim body describes a structurally complete invention such that deletion of the preamble phrase does not affect the structure or steps of the claimed invention." Catalina Mktg. Int'l v. Coolsavings.com, Inc., 289 F.3d 801, 809 (Fed. Cir. 2002). Here, deletion of the preamble does not affect the structure or steps of the claimed invention. One could substitute "a device comprising" for the preamble and still understand the claim. Mondis has not demonstrated that this is not the case.

Second, Mondis argues that the preamble provides an antecedent basis for the claim terms, "display unit," "video signals," and "externally connected video source." Mondis has misunderstood the Federal Circuit's view on antecedents. The mere fact that certain words appear both in the preamble and the claim body does not automatically make the preamble limiting; rather, there must be "*dependence* on a particular disputed preamble phrase for antecedent basis [which] may limit claim scope because it indicates a reliance on both the

[1] The word "display" appears in the body of claim 14 in six places. Since the body of the claim repeatedly references the display function, this Court does not discern what essential feature the phrase "display unit" adds.

preamble and claim body to define the claimed invention." Catalina, 289 F.3d at 808 (emphasis added). There is no dependence or reliance for meaning here. This is not a case like Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1306 (Fed. Cir. 1999), where the Federal Circuit found that a claim term could not be understood without reference to the preamble. Mondis has not shown that these claim terms cannot be understood without reference to the preamble.

LG argues that the preamble is not limiting because it merely repeats information contained within the body of the claim. LG observes that the preamble phrase, "a display unit for displaying an image based on video signals inputted from an externally connected video source," repeats the information contained in the phrase, "a video circuit adapted to display an image based on the video signals sent by the externally connected video source." While the two phrases are not identical, Mondis has not demonstrated that the preamble adds any unique content to the information contained in the body of the claim.

It is worth noting that, in a re-examination of claim 17, which contains identical preamble language, the examiner found that the preamble was not limiting. (Walsh Dec. Ex. 3 at 14.)

The preamble to claim 14 is not a claim limitation.

B. "Display unit information"

The phrase "display unit information" appears in claim 14 in two different elements: 1) the memory stores display unit information; and 2) the communication controller communicates display unit information. Mondis proposes that this phrase has its ordinary meaning ("information pertaining to a display unit"), while LG proposes a narrowing construction: "information for adjusting a display image on the display unit."

LG observes that the patent does not expressly define "display unit information" and, on that basis alone, asserts that there is ambiguity. Patents generally contain many words and phrases that lack express definitions. LG cites no law in support of the proposition that the absence of an express definition, without more, is sufficient to necessitate claim construction. Nor does LG identify any interpretive problems that stem from using the ordinary meaning proposed by Mondis. Thus, LG has no basis to assert that this phrase is ambiguous, and its basis for its construction is little more than "that's what we infer from the specification." As Mondis argues, LG here seeks to import additional limitations into the claim.

Mondis argues, persuasively, that LG's proposed construction is too narrow: the device uses the display unit information for more than just adjusting the display image. The plain language of claim 14 makes clear that the identification number is a species of display unit information. Claim 14 cites one specific piece of "display unit information:" "an identification number for identifying at least a type of said display unit," which makes clear that the identification number is for the purpose of identifying the display unit. LG's narrow proposed construction conflicts with this: "information for adjusting a display image on the display unit" does not identify a genus of which "an identification number for identifying at least a type of said display unit" is a species. Because LG's proposed meaning conflicts with the express language of claim 14, it cannot be correct.

Furthermore, the specification makes clear that the identification number of the display unit plays a key role in the coordination of the display unit with the external video source: the specification describes an embodiment in which the display unit sends the stored identification number to the external video source, which checks to determine whether the identification

number is "registered;" based on this, the external video source "judges" that it can or cannot control the display device. Id. at col.5 l.60-col.6 l.4. This process uses the display unit identification number for the purpose of coordination of control between the external source and the display device; it does not use the display unit identification number for the purpose of "adjusting a display image on the display unit."

The claim language, together with the specification, thus make clear that some display unit information – the identification number – plays a key role in communication and coordination of control with the external video source. This requires a broader meaning than the meaning LG proposes, "information for adjusting a display image on the display unit."[2] Mondis' proposed construction gives the phrase its ordinary and broader meaning, which this Court will adopt.

C. "display unit information including an identification number for identifying at least a type of said display unit and characteristic information of said display unit"

LG contends that this phrase is indefinite because the "at least" language is ambiguous: does the identification number identify **both** the type and characteristic information, or **only** the type? LG says that neither the claim language nor the specification can answer this question. Brackets are helpful to highlight the alternate readings:

> a memory in which at least display unit information is stored, said display unit information including [an identification number for identifying at least a type of said display unit] and [characteristic information of said display unit];

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[2] LG, in its opening brief, recognizes the role of the identification number in the process of coordination and control with the computer (LG Br. 15-16), but insists that such functionality fits within "adjusting a display image." This Court does not see how these coordination and control functions equate to adjusting a display image. On the whole, the specification clearly differentiates control functions from display functions.

> or
>
> a memory in which at least display unit information is stored, said display unit information including an identification number for identifying at least [a type of said display unit and characteristic information of said display unit];

One could also phrase the question as: does "characteristic information of said display unit" refer to a category of display unit information, or to something that the identification number identifies? Mondis responds, persuasively, that the first reading is correct and that there is no ambiguity here: the identification number must identify at least the type of display unit. This is clear when one looks at claims 17 and 18:

> 17. A display unit for displaying an image based on video signals inputted from an externally connected video source, comprising:
>
> a video circuit adapted to display an image based on the video signals sent by said externally connected video source;
>
> a memory in which at least display unit information is stored, said display unit information including an identification number for identifying at least a type of said display unit;
>
> and a communication controller capable of bi-directionally communicating with said video source; wherein said communication controller is capable of communicating said identification number stored in said memory and no other display unit information to said video source.
>
> 18. The display unit according to claim 17, wherein said display unit information includes characteristic information of said display unit.

Claim 17 is very similar to claim 14, but claim 17 requires only "an identification number for identifying at least a type of said display unit," and the third element communicates **only** that identification number and no other display unit information. Then, claim 18 expressly expands the scope of "display unit information" to include "characteristic information of said display unit." These make clear that the first of LG's two proposed readings is the correct one: "display

unit information" is the genus, and the species are [an identification number for identifying at least a type of said display unit] and [characteristic information of said display unit].

The first reading is also supported by the third element of claim 14:

> and a communication controller capable of bi-directionally communicating with said video source; wherein said communication controller is capable of communicating said display unit information other than said characteristic information to said video source.

This element supports the interpretation that "display unit information" is the genus, and "characteristic information" is a species within that genus.

The Supreme Court has held: "we read §112, ¶2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." Nautilus, Inc. v. Biosig Instruments, Inc., 134 S. Ct. 2120, 2129 (2014). LG has not persuaded this Court that the claim term at issue fails to meet this requirement. Moreover, Mondis points out that claim 14 has survived three PTO *ex parte* reexaminations. The phrase, "display unit information including an identification number for identifying at least a type of said display unit and characteristic information of said display unit," is not indefinite.

D. "identification number"

LG also makes a separate argument about the meaning of "identification number" in claim 14, proposing that it means: "a number for uniquely and distinctively identifying and controlling an individual display unit." LG's proposed construction cannot be correct, because it conflicts with what the patent says the inventors actually invented.

The Federal Circuit has held:

> Ultimately, the interpretation to be given a term can only be determined and

> confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction. A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.

Renishaw PLC v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1998) (citations omitted).

LG's proposed construction conflicts with what the patent says the inventors actually invented in two ways: 1) the specification explains that there are at least *two* kinds of identification number used, one for the computer or video source and one for the display device;[3] and 2) the specification explains that, depending on whether or not the identification number is "registered," the invention may or may not allow the video source to control the display device.

As to the first point, the "Summary of the Invention" explains that checking the identification number is a bi-directional process: the computer (or video source) receives the identification number from the display device (col.5 l.61-col.6 l.4) and the display device receives the identification number from the computer (col.5 ll.35-50). Thus, the specification makes clear that there are two kinds of identification number, one for the video source, and one for the display device. LG's proposed construction limits the phrase, "identification number," to the "display unit."[4] This narrowing interpretation does not conform to what the inventors

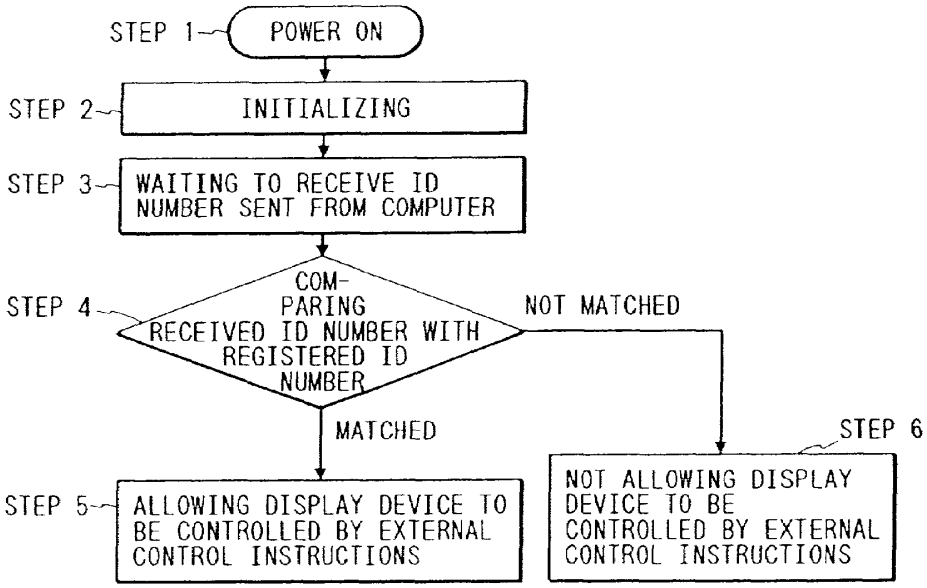
[3] The specification uses the phrase "ID number," rather than "identification number," which appears in claim 14. No one has proposed that these refer to different things.

[4] The Court recognizes that, in the context of the second element of claim 14, the identification number referred to identifies only the display unit. If, however, LG's proposed construction rests on a lexicographic theory, the construction must be applicable to all instances of "identification number" in the patent – and this includes identification numbers which identify the video source.

actually invented, nor to how the phrase is used in the specification.

As to the second point, the specification includes a flowchart to aid in describing the functioning of a specific embodiment. The flowchart shows one use of an identification number in this embodiment:

FIG. 3



This flowchart clearly shows one use of an identification number *sent by the computer*:[5] it is received by the microcomputer in the display device, which checks to see if the number is registered, and then the outcome of that check determines whether or not the computer will be

[5] As already stated, there is another identification number that the display device sends to the computer. See '180 patent, col.5 ll.61-67. Although Figure 3 depicts how the display device uses the identification number sent by the computer, and the identification number in claim 14 identifies the display device, not the computer, the specification states that the same process occurs in reverse, at col.5 l.61-col.6 l.4.

allowed to control the display device. If the microcomputer inside the display device receives an identification number which is not "registered," "the display device **6** is not allowed to be controlled." '180 patent, col.5 ll.48-49. The specification states that the process depicted in Figure 3 also occurs in reverse:

> The above is an example that an ID number is sent to the display device **6** from the computer **1**. However, needless to say, the reverse case of the above is possible. Namely, an ID number is sent to the computer **1** from the display device **6** so that the computer **1** identifies that the display device 6 having a communication function is connected and the computer **1** compares the ID number with the ID number registered in the computer **1**. When the corresponding ID number is registered, the computer **1** controls the display device **6** by a predetermined control instruction. When it is not registered, the computer **1** judges that it cannot control the display device **6** and will not control the display device **6**.

'180 patent, col.5 l.60-col.6 l.4.

Therefore, the process which checks the display unit identification number does not always allow the control of the display unit. LG's proposed interpretation, which states that it is "a number for . . . controlling an individual display unit," conflicts with what the specification says the inventors actually invented: a system which allows control of the display device when the display unit's identification number is registered, but prevents control of the display device when the display unit's identification number is not registered.

LG's proposed construction, "a number for uniquely and distinctively identifying and controlling an individual display unit," does not accurately capture what the inventors actually invented. It is incorrect to say that the identification number is "for" controlling an individual display unit. "For" here appears to be short for "for the purpose of." It is incorrect to say that the display unit's "identification number" has the purpose of controlling the display unit. The specification explains that the state in which the video source controls the display unit is the

result of a multi-step process of coordination of the video source and the display unit. While this coordination process involves the use of identification numbers – both for the video source and for the display unit –, to say that the display unit identification number controls the display oversimplifies and garbles the interrelationships of the elements involved.[6]

The ordinary understanding of "identification number" is that it is for the purpose of identifying something, and the language of claim 14, "an identification number for identifying at least a type of said display unit," is consistent with this. While it is correct that one embodiment of the invention makes use of the identification number in the process depicted in reverse in Figure 3, the specification makes clear that the identification number is "for" the purpose of *not* controlling the display unit as much as it is "for" the purpose of controlling it.[7]

Finally, LG has failed to explain how the proposed construction fits with the existing claim language. The relevant part of claim 14 states: "said display unit information including an identification number for identifying at least a type of said display unit." If LG's proposed construction were correct, what would be the meaning of this claim phrase? Would it be: "said display unit information including an identification number for both identifying at least a type of said display unit and for uniquely and distinctively identifying and controlling an individual

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[6] Consider LG's proposed construction in light of this specification statement: "When the corresponding ID number is registered, the computer **1** controls the display device **6** by a predetermined control instruction. . ." '180 patent, col.5 l.67-col.6 l.2. This states clearly and simply what the inventors actually invented.

[7] In its responsive brief, LG states: "To be clear, LG's construction does not require that the identification number 'control' the display unit." (LG Resp. Br. 7.) This statement makes LG's position incomprehensible. The proposed construction asserts that the identification number is "for controlling an individual display unit." The responsive brief proceeds to explain that what LG had in mind was that the identification number is "for purposes of facilitating control of the display." (LG's Resp. Br. 7.) If there is a way to make sense of LG's different statements, LG has not provided it.

display unit?" Claim 14 already contains language that states what the identification number is "for." LG proposes to supplement this with two more things that the identification number is "for," but without explaining how it all goes together. LG's approach, which construes "identification number" in isolation, without accounting for the important phrase that follows ("for identifying at least a type of said display unit"), appears to only produce interpretive difficulties without solving any.

LG has not proposed a viable interpretation of "identification number." Mondis contends that "identification number" should be given its ordinary meaning, and this Court agrees.

E. "display unit information other than said characteristic information to said video source"

LG contends that "other than" should be construed to mean "excluding." Mondis replies, correctly: "This is nonsense." (Mondis Resp. Br. 4.) This proposed interpretation only confuses; it neither addresses a genuine question of interpretation nor clarifies.

In support, LG points to two places in which the phrase "other than" appears in the specification and states: "Though neither usage is in the same context as the claims, both reflect the theme of excluding one thing in favor of another." (LG's Br. 6.) LG also makes a prosecution history argument involving an examiner comment, and dictionary definitions – all these are irrelevant. "Other than" in the phrase at issue is clear as it is:

> wherein said communication controller is capable of communicating said display unit information other than said characteristic information to said video source.

LG proposes that we rewrite this phrase as follows:

> wherein said communication controller is capable of communicating said display unit information excluding said characteristic information to said video source.

The claim language as written is clear: the communication controller must be capable of

communicating some information which is not the characteristic information of said display unit. (This is the construction that Mondis proposes.) LG's proposed construction inserts ambiguity where there is none: what does LG's construction mean? Must the controller be incapable of communicating characteristic information?[8] "Other than" here is perfectly clear, while putting "excluding" in its place is unclear. "Other than" has its ordinary meaning, and no construction is necessary.

LG contends: "LG's construction has been endorsed by the PTO." (LG Br. 5.) LG does not persuasively support this assertion.

F. Claim 16

The parties have one claim construction dispute regarding claim 16, which states:

> The display unit according to claim 14, wherein said display unit receives a signal from said video source that is generated by using said identification number stored in said memory.

The dispute involves the meaning of the word "signal." Mondis contends that "signal" has its ordinary meaning. LG contends that the claim should be construed to mean: "said display unit receives a signal that adjusts the displayed image on the display unit based on said identification number."

In support of its construction, LG contends that the specification describes only one embodiment in which a signal from a video source is generated by using the identification number, at col.5 l.60 - col.6 l.4. This section of the specification states, in the most pertinent part:

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[8] LG does not offer any support for the proposition that claim 14 requires that the communication controller be incapable of communicating "characteristic information of said display unit." Rather, claim 14 requires that the communication controller be capable of communicating some display unit information that is not characteristic information.

> Namely, an ID number is sent to the computer 1 from the display device 6 so that the computer 1 identifies that the display device 6 having a communication function is connected and the computer 1 compares the ID number with the ID number registered in the computer 1. When the corresponding ID number is registered, the computer 1 controls the display device 6 by a predetermined control instruction. . .
>
> By doing this, the computer 1 communicates with a specific display device 6 and can exercise control such as changing the color temperature of an image displayed on the display device 6 or changing the display size depending on the application software.

'180 patent col.5 l.62-col.6 l.9. This part of the specification states that the display device sends its ID number, and then the computer in the external video source checks it to see if it is registered; if the ID number is registered, the computer in the external video source "controls the display device by a predetermined control instruction." The specification then gives two examples of the computer exercising control of the display device: changing the color temperature of a displayed image and changing the display size. While it is true that these two examples both can be characterized as adjusting the displayed image, they are just exemplary. They do not provide a basis to limit the claim to the exemplary embodiments. "[A]lthough the specification often describes very specific embodiments of the invention, we have repeatedly warned against confining the claims to those embodiments." Phillips v. AWH Corp., 415 F.3d 1303, 1323 (Fed. Cir. 2005).

LG concedes that some control signals from the external video source adjust the display power supply. LG argues, however, that such power control signals fall within the scope of signals which adjust the displayed image. This is unpersuasive and shows the problem with LG's proposed construction: having narrowed "signal" to only signals that adjust the displayed image, one then also has to expand the ordinary meaning of "adjusts the displayed image on the

display unit" to include power control. It seems better just to give the disputed claim language its ordinary meaning, than to narrow it to signals which adjust the displayed image, but then broaden that to include power control signals.[9]

LG's proposed meaning does not appear to be an interpretation of a claim term, but rather a rewriting of the claim with an additional limitation, based on narrowing the claim to exemplary embodiments in the specification.[10] Claim 16 should be construed as having its ordinary meaning.

"There is a heavy presumption that claim terms are to be given their ordinary and customary meaning." Aylus Networks, Inc. v. Apple Inc., 856 F.3d 1353, 1358 (Fed. Cir. 2017). As to the disputed claim terms, neither party has overcome this heavy presumption. The Court concludes that all of the disputed claim terms should be given their ordinary meaning. The preamble of claim 14 is not a claim limitation. None of the disputed terms is indefinite.

SO ORDERED.

s/ Stanley R. Chesler
Stanley R. Chesler, U.S.D.J.

Dated: September 28, 2017

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[9] As Justice Bradley famously wrote: "Some persons seem to suppose that a claim in a patent is like a nose of wax which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express." White v. Dunbar, 119 U.S. 47, 51 (1886).

[10] LG's argument here shows the difficulties that come from a proposed construction that does not originate in a problem of interpretation of specific claim language. LG here fails to provide a foundation for its proposed construction in a problem of interpretation of "signal." What is the question that a skilled artisan would have about the meaning of the word "signal" in claim 16? LG does not say. Without a foundation in a specific question of meaning, proposed narrowing interpretations can appear unnecessary.