IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CHANBOND, LLC, Plaintiff, v. ATLANTIC BROADBAND GROUP, LLC, Defendant.	Civil Action No. 1:15-cv-00842-RGA
CHANBOND, LLC, Plaintiff, v. BRIGHTHOUSE NETWORKS, LLC, Defendant.	Civil Action No. 1:15-cv-00843-RGA
CHANBOND, LLC, Plaintiff, v. CABLE ONE INC., Defendant.	Civil Action No. 1:15-cv-00844-RGA

CHANBOND, LLC, Plaintiff, v. CABLEVISION SYSTEMS CORPORATION, *et al.*, Defendants.	Civil Action No. 1:15-cv-00845-RGA
CHANBOND, LLC, Plaintiff, v. CEQUEL COMMUNICATIONS, LLC, *et al.*, Defendants.	Civil Action No. 1:15-cv-00846-RGA
CHANBOND, LLC, Plaintiff, v. CHARTER COMMUNICATIONS, INC., Defendant.	Civil Action No. 1:15-cv-00847-RGA
CHANBOND, LLC, Plaintiff, v. COMCAST COMMUNICATION, *et al.*, Defendants.	Civil Action No. 1:15-cv-00848-RGA

CHANBOND, LLC, Plaintiff, v. COX COMMUNICATIONS, INC., Defendant.	Civil Action No. 1:15-cv-00849-RGA
CHANBOND, LLC, Plaintiff, v. MEDIACOM COMMUNICATIONS CORPORATION, Defendant.	Civil Action No. 1:15-cv-00850-RGA
CHANBOND, LLC, Plaintiff, v. RCN TELECOM SERVICES, LLC, Defendant.	Civil Action No. 1:15-cv-00851-RGA
CHANBOND, LLC, Plaintiff, v. TIME WARNER CABLE, INC., *et al.*, Defendants.	Civil Action No. 1:15-cv-00852-RGA

CHANBOND, LLC, Plaintiff, v. WAVEDIVISION HOLDINGS, LLC, Defendants.	Civil Action No. 1:15-cv-00853-RGA
CHANBOND, LLC, Plaintiff, v. WIDEOPEN WEST FINANCE, LLC, Defendants.	Civil Action No. 1:15-cv-00854-RGA

MEMORANDUM OPINION

Stephen B. Brauerman, Esq., BAYARD, P.A., Wilmington, DE; Sara E. Bussier, Esq., BAYARD, P.A., Wilmington, DE; Mark S. Raskin, Esq., MISHCON DE REYA NEW YORK LLP, New York, NY; Robert A. Whitman, Esq., MISHCON DE REYA NEW YORK LLP, New York, NY; Michael S. DeVincenzo, Esq. (argued), MISHCON DE REYA NEW YORK LLP, New York, NY; John F. Petrsoric, Esq. (argued), MISHCON DE REYA NEW YORK LLP, New York, NY.

Attorneys for Plaintiff

Jack B. Blumenfeld, Esq., MORRIS NICHOLS ARSHT & TUNNELL LLP, Wilmington, DE; Jennifer Ying, Esq., MORRIS NICHOLS ARSHT & TUNNELL LLP, Wilmington, DE; Michael Brody, Esq. (argued), WINSTON & STRAWN LLP, Chicago, IL; Jonathan Retsky, Esq., WINSTON & STRAWN LLP, Chicago, IL; Krishnan Padmanabhan, Esq. (argued), WINSTON & STRAWN LLP, New York, NY; Anup Misra, Esq., WINSTON & STRAWN LLP, New York, NY; Alexandra McTague, Esq., WINSTON & STRAWN LLP, Menlo Park, CA; James Lin, Esq., WINSTON & STRAWN LLP, Menlo Park, CA;

Attorneys for Defendants

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ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the issue of claim construction of multiple terms in U.S. Patent Nos. 7,941,822 ("the '822 patent"), 8,341,679 ("the '679 patent"), and 8,984,565 ("the '565 patent"). The Court has considered the Parties' Joint Claim Construction Brief. (Civ. Act. No. 15-842-RGA, D.I. 68; Civ. Act. No. 15-843-RGA, D.I. 67; Civ. Act. No. 15-844-RGA, D.I. 68; Civ. Act. No. 15-845-RGA, D.I. 68; Civ. Act. No. 15-846-RGA, D.I. 70; Civ. Act. No. 15-847-RGA; D.I. 67; Civ. Act. No. 15-848-RGA, D.I. 68; Civ. Act. No. 15-849-RGA, D.I. 67; Civ. Act. No. 15-850-RGA, D.I. 68; Civ. Act. No. 15-851-RGA, D.I. 68; Civ. Act. No. 15-852-RGA, D.I. 68; Civ. Act. No. 15-853-RGA, D.I. 69; Civ. Act. No. 15-854-RGA, D.I. 68).[1] The Court heard oral argument on November 15, 2016. (D.I. 78).

I. BACKGROUND

Plaintiff filed these actions on September 21, 2015, alleging infringement of three patents. (D.I. 1). All three patents share a common specification. The patents claim devices and methods for distributing signals on a wideband signal distribution system. (*See, e.g.*, '822 patent, claim 1; '679 patent, claim 1; '565 patent, claim 1).

II. LEGAL STANDARD

"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." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). "'[T]here is no magic formula or catechism for conducting claim construction.' Instead, the court is free to attach the appropriate weight to appropriate sources 'in light of the statutes and policies that inform patent law.'" *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*,

[1] Unless otherwise specifically noted, all references to the docket refer to Civil Action No. 15-842-RGA.

415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

"[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which 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." *Id.* at 1312–13 (citations and internal quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). "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." *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court's construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which "consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises." *Phillips*, 415 F.3d at 1317–19 (internal quotation marks omitted). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic

evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

"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). It follows that "a claim interpretation that would exclude the inventor's device is rarely the correct interpretation." *Osram GMBH v. Int'l Trade Comm'n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citation and internal quotation marks omitted).

III. CONSTRUCTION OF DISPUTED TERMS

The '822 patent is directed to an intelligent device system and method for distribution of digital signals on a wideband signal distribution system. Claim 1 is representative and reads as follows:

> 1. An *intelligent device* for receiving and processing RF signals, comprising:
> an input configured to receive a *modulated RF signal* containing multiple channels, and to receive *channel in use information* which identifies each channel in the *modulated RF signal* that includes information addressed to at least one *addressable device*;
> a demodulator unit configured to demodulate at least two channels contained in the *modulated RF signal* when the *channel in use information* identifies the at least two channels as containing information addressed to the at least one *addressable device*; and
> a *combiner* configured to combine the at least two channels demodulated by the demodulator unit into a digital stream when the *channel in use information* identifies the at least two channels as containing information addressed to the at least one *addressable device*, and to output the digital stream to the at least one *addressable device*.

('822 patent, claim 1) (disputed terms italicized).

The '679 patent is also directed to an intelligent device system and method for distribution of digital signals on a wideband signal distribution system. Claim 1 is representative and reads as follows:

1. An *intelligent device* for transmitting information on a *modulated RF signal*, comprising:

an input configured to receive a digital stream containing digital information, the digital information containing at least one destination address to which the digital information is to be sent;

an RF channel detector configured to detect which *dynamically allocated RF channels* are currently being used in a *wideband signal distribution system*, and to generate RF *channel in use information* identifying which of the *dynamically allocated RF channels* are currently being used in the *wideband signal distribution system*;

a traffic sensor configured to measure an information throughput of the digital information received by the input, and to generate traffic information identifying the information throughput of the received digital information;

a modulator unit configured to modulate the digital information into at least two separate *dynamically allocated RF channels* when the traffic information indicates that the information throughput of the digital information exceeds an information capacity of a single RF channel, and to output a *modulated RF signal* containing the at least two separate *dynamically allocated RF channels* to the wideband signal distribution system such that the digital information contained in the received digital stream is distributed across the at least two *dynamically allocated RF channels* output to the *wideband signal distribution system*; and

a processor configured to

receive the RF *channel in use information* generated by the RF channel detector and the traffic information generated by the traffic sensor,

determine which *dynamically allocated RF channels* are available to carry the digital information, from among a plurality of RF channels contained in the *modulated RF signal*, based on the RF channels which are identified in the RF *channel in use information* as not currently being used in the *wideband signal distribution system*,

determine a number of *dynamically allocated RF channels* from among the plurality of RF channels contained in the *modulated RF signal* on which to carry the digital information received by the input based on the information throughput of the digital information and the information capacity of a single RF channel,

instruct the modulator unit to distribute the received digital information across at least two *dynamically allocated RF channels* by modulating the received digital information into the at least two *dynamically allocated RF channels* when the traffic information indicates that the information throughput of the digital information exceeds an information capacity of a single RF channel, and

instruct the modulator unit on which specific *dynamically allocated RF channels* from among the plurality of RF channels to carry the digital information in the *modulated RF signal* based on the determined number of *dynamically allocated RF channels* on which to carry the digital information, the at least one destination address contained in the digital information, and the determined available *dynamically allocated RF*

channels which are not currently being used in the *wideband signal distribution system*.

('679 patent, claim 1) (disputed terms italicized).

The '565 patent is also directed to an intelligent device system and method for distribution of digital signals on a wideband signal distribution system. Claim 1 is representative and reads as follows:

> 1. An *intelligent device* for transmitting information on a *modulated RF signal*, comprising:
>
> a non-transitory computer-readable recording medium having instructions recorded thereon; and
>
> a processor, by executing the instructions recorded on the computer-readable recording medium, being configured to:
>
> receive a digital stream containing digital information, the digital information containing at least one destination address to which the digital information is to be sent;
>
> receive *channel in use information* identifying which *dynamically allocated RF channels* are currently being used in a *wideband signal distribution system*;
>
> receive traffic information identifying an information throughput of the received digital information;
>
> determine which *dynamically allocated RF channels* are available to carry the digital information, from among a plurality of RF channels contained in a *modulated RF signal*, based on the RF channels which are identified in the *channel in use information* as not currently being used in the *wideband signal distribution system*;
>
> determine a number of *dynamically allocated RF channels* from among the plurality of RF channels contained in the *modulated RF signal* on which to carry the received digital information based on the information throughput of the digital information and the information capacity of a single RF channel;
>
> instruct the modulator unit to distribute the received digital information across at least two *dynamically allocated RF channels* by modulating the received digital information into at least two *dynamically allocated RF channels* to be output to the *wideband signal distribution system*, when the traffic information indicates that the information throughput of the digital information exceeds an information capacity of a single RF channel;
>
> instruct the modulator unit on which specific *dynamically allocated RF channels* from among the plurality of RF channels to carry the digital information in the *modulated RF signal* based on the determined number of *dynamically allocated RF channels* on which to carry the digital

information, the at least one destination address contained in the digital information, and the determined available *dynamically allocated RF channels* which are not currently being used in the *wideband signal distribution system*; and

instruct the modulator unit to output the at least two *dynamically allocated RF channels* over which the received digital information is distributed to the *wideband signal distribution system.*

('565 patent, claim 1) (disputed terms italicized).

1. "intelligent device"

   a. *Plaintiff's proposed construction*: "No construction necessary. Plain meaning. E.g., a device or apparatus as claimed"

   b. *Defendants' proposed construction*: "a component in a local network that forwards a signal [from/to] a distribution unit [to/from] addressable devices and standard outlets"

   c. *Court's construction*: The preamble is limiting. "The intelligent device as claimed in the independent claims"

Defendants argue that because this term appears in the preamble of all independent claims, it is necessarily limiting and must be construed. Plaintiff counters that the term is simply the name given to the invention by the patentee and that the device is sufficiently described in the body of the claim. Defendants make three points in support of their argument that the preamble is limiting: first, the preamble recites essential structure; second, the use of the term in the preamble provides an antecedent basis for its use in a number of dependent claims; third, the applicant relied on the preamble during prosecution to distinguish the claim over prior art.

"Preamble language that merely states the purpose or intended use of an invention is generally not treated as limiting the scope of the claim." *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 952 (Fed. Cir. 2006). "When limitations in the body of the claim rely upon and derive antecedent basis from the preamble, then the preamble may act as a necessary component of the claimed invention." *Eaton Corp. v. Rockwell Int'l Corp.*, 323 F.3d 1332, 1339 (Fed. Cir. 2003).

As to Defendants' first argument, none of the independent claims use the term "intelligent device" in the body of the claims. The preamble to each of those claims adds no limitations; it "merely gives a descriptive name to the set of limitations in the body of the claim that completely set forth the invention." *IMS Tech., Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434 (Fed. Cir. 2000). With respect to Defendants' third argument, the prosecution history does not support importing limitations beyond what is actually claimed. As Plaintiff notes, the claims in the patent as allowed are different from those in the applications and office actions cited by Defendants. (D.I. 68 at 59). In light of these differences, nothing in the prosecution history suggests that any of the limitations Defendants seek to impose were ever required in order to distinguish these allowed claims over prior art.

Defendants are correct, however, that the preambles of the independent claims are limiting in that they provide an antecedent basis for the use of the term "intelligent device" in the body of certain dependent claims. I do not agree, however, that this necessarily means the term requires construction. Each of the dependent claims at issue is quite specific as to the intelligent device to which it refers. For example, claim 8 of the '822 patent begins "The intelligent device of claim 1." In other words, the antecedent basis of the "intelligent device" claimed in the body of each dependent claims is the intelligent device of the specified independent claim, which is fully described in that independent claim. Therefore, I construe "intelligent device" in each dependent claim to mean the intelligent device as claimed in the referenced independent claim.

2. "combiner"

   a. *Plaintiff's proposed construction*: "a multiplexer that, when it receives multiple channels or inputs, performs parallel to serial conversion on those channels or inputs"

   b. *Defendants' proposed construction*: "A multiplexer required to operate in the manner claimed"

c. *Court's construction*: "multiplexer that, when it receives multiple channels or inputs, performs parallel to serial conversion on those channels or inputs"

The parties agree that the "combiner" as claimed is a multiplexer. In briefing and at oral argument, the disagreement between the parties seemed limited to whether the combiner was required to perform a parallel to serial conversion, with Defendants arguing in favor of such limitation. (D.I. 68 at 28; D.I. 78 at 96:21-25). The primary point of disagreement, as I understood it at the time of oral argument, was that the limitation as originally proposed by Defendants did not appear to allow for the "pass-through" function of a multiplexer when only a single input is presented to it. (D.I. 78 at 94:21-24). It seems to me that Plaintiff's current proposed construction addresses this point of disagreement and is consistent with Defendants' statements at oral argument. (*Id.* at 97:3-5). Defendants' current proposal, on the other hand, does not provide any clarification as to the meaning of this term. Therefore, I will adopt Plaintiff's construction.

3. "modulated RF signal"

a. *Plaintiff's proposed construction*: "No construction needed. Plain meaning. E.g., a signal or signals modulated for transmission as a radio frequency signal"

b. *Defendants' proposed construction*: "one or more channel(s) modulated onto a single RF carrier"

c. *Court's construction*: "plain meaning"

With respect to this term, Defendants have not actually proposed to construe anything beyond adding limitations that find no support in the patent. Their proposed construction uses two of the three words from the disputed phrase without providing any further clarification of their meaning. Furthermore, Defendants introduce another word, "carrier," that itself would need to be defined. It seems to me that "modulated RF signal" is a term that a person of ordinary skill would understand without further clarification. Furthermore, I see no support for limiting the modulation

to a single carrier. To the contrary, the specification's description of one embodiment refers to the use of quadrature amplitude modulation (QAM) which by definition requires multiple carriers.[2] ('822 patent at 9:57-60). Therefore, I will construe this term to have its plain meaning.

4. "wideband signal distribution system"

a. *Plaintiff's proposed construction*: "No construction necessary. Plain meaning. E.g., a system that distributes signals on a wide band of frequencies."

b. *Defendants' proposed construction*: "local infrastructure for distributing data between a distribution unit and addressable device and outlets"

c. *Court's construction*: "a system that distributes signals on a wide band of frequencies with wideband as defined in the specification"

Defendants seek to impose two limitations on the meaning of this claim term: first, that the system must be local in character; second, that the system involves distribution specifically "between a distribution unit and addressable device and outlets." The second limitation would require reading in a limitation from a preferred embodiment, which I decline to do. The specification states, "A wideband signal distribution system typically includes a distribution unit having a plurality of inputs and outputs, and a series of cables, such as twisted pair cable, running between a plurality of outlets and the inputs and outputs of the distribution unit." (*Id.* at 2:48-52). "Typically" does not mean "always," however, and I do not find support in the claims or specification to limit the meaning of this term.

As to whether the system must have "local infrastructure," I agree with Plaintiff that the claims and specification do not support limiting the meaning of wideband signal distribution system in this way. As an initial matter, it is not clear what precisely Defendants mean by "local"

[2] *See, e.g.*, GENERAL SERVICES ADMINISTRATION, FEDERAL STANDARD 1037C, TELECOMMUNICATIONS: GLOSSARY OF TELECOMMUNICATIONS TERMS (1996), *available at* http://www.its.bldrdoc.gov/fs-1037/fs-1037c.htm (defining QAM as "quadrature modulation in which the two carriers are amplitude modulated" and quadrature modulation as "modulation using two carriers out of phase by 90° and modulated by separate signals").

and I am not inclined to construe a claim term using words that themselves are ambiguous or unclear. Defendants argue that the patentee defined the wideband signal distribution system to be the system described in the Flickinger patent referenced in the specification. (D.I. 68 at 77). The specification is not so limiting, however, stating only that this invention uses a wideband signal distribution system "such as that disclosed" in the Flickenger patent. ('822 patent at 1:41-42). This is not a clear definition of the wideband signal distribution system disclosed in the patent, nor is it a disavowal of other possible types of wideband signal distribution systems.

Furthermore, the restriction to a local infrastructure is not supported by the patent. For example, the specification states, "An intelligent device system may also be, for example, an intelligent device system for local sending and receiving." ('822 patent at 3:22-23). The patent certainly contemplates that the intelligent device might be implemented in a local infrastructure, as described in this embodiment, but nothing in the patent suggests that the invention is so limited. In fact, the specification also states, "An intelligent device system may also be, for example, an intelligent device system for remote sending." (*Id.* at 3:3-4). I will not adopt a construction that imports a limitation from one embodiment and also reads out another embodiment. Finally, I note that the patentee chose to expressly define "wideband" in the specification to mean "a signal or signal sets having an analog or digital characteristic that can be distributed on a carrier of 5 MHz to in excess of 1 GHz, for example." ('822 patent at 7:6-9). Therefore, I will construe this term to mean "a system that distributes signals on a wide band of frequencies with wideband as defined in the specification."

5. "addressable device"

   a. *Plaintiff's proposed construction*: "No construction needed. Plain meaning."

   b. *Defendants' proposed construction*: "a device with which an intelligent device directly communicates based on the device's address"

c. *Court's construction*: "plain meaning"

The parties do not disagree on the meaning of the term "addressable device." The disagreement over construction of this term stems from Defendants' proposal that the intelligent device must communicate "directly" with the addressable device. This additional limitation only produces additional uncertainty, however. Even at oral argument, Defendants had trouble articulating what it means for the intelligent device to communicate directly with an addressable device. (D.I. 78 at 106:5-108:6). Furthermore, it seems clear that Defendants' reason for introducing this limitation is to head off infringement contentions that they see as exceeding the scope of the patent. (*Id.* at 108:7-9). It seems to me that Defendants are simply making a non-infringement argument rather than attempting to meaningfully construe a term that has a plain meaning to persons of ordinary skill in the art. I will not read limitations into a claim terms that are unsupported by the intrinsic evidence. Therefore, I will construe this term to have its plain meaning.

6. "dynamically allocated RF channels"

a. *Plaintiff's proposed construction*: "plain meaning, which excludes pre-assigned channels"

b. *Defendants' proposed construction*: "RF channels onto which information is allocated dynamically. An RF channel that is always selected for transmission of information (such as a pre-assigned channel) is not a dynamically allocated RF channel."

c. *Court's construction*: "plain meaning, which excludes pre-assigned channels"

The parties agree that that pre-assigned channels are not dynamically allocated. What the parties disagree on, however, is not clear to me. Defendants' proposed construction appears to do little more than mimic the words of the claim term and adds nothing to the meaning of this term.

Therefore, I will construe this term to have its plain meaning with the understanding that pre-assigned channels are not dynamically allocated.

IV. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion suitable for submission to the jury.