**IN THE UNITED STATES DISTRICT COURT**
**FOR THE DISTRICT OF DELAWARE**

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| BELDEN INC.,<br><br>Plaintiff,<br><br>v.<br><br>COMMSCOPE, INC., COMMSCOPE, INC. OF NORTH CAROLINA, AND COMMSCOPE TECHNOLOGIES LLC,<br><br>Defendants. | Civil Action No. 22-783-RGA |

MEMORANDUM OPINION

Pilar G. Kraman, Robert M. Vrana, Jennifer P. Siew, YOUNG CONAWAY STARGATT & TAYLOR, LLP, Wilmington, DE; Douglas J. Nash, John D. Cook, BARCLAY DAMON, LLP, Syracuse, New York; Naresh K. Kannan, BARCLAY DAMON, LLP, Albany New York,

Attorneys for Plaintiff.

Kelly E. Farnan, Sara M. Metzler, RICHARDS LAYTON & FINGER, P.A., Wilmington, DE; Philip P. Caspers, Timothy A. Lindquist, Dennis C. Bremer, Tara C. Norgard, William F. Bullard, CARLSON, CASPERS, VANDENBURGH & LINDQUIST, P.A., Minneapolis, MN,

Attorneys for Defendants.

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**ANDREWS, U.S. DISTRICT JUDGE:**

Before me is the issue of claim construction of multiple terms in U.S. Patent Nos. 9,991,030 ("the '030 patent") and 10,832,833 ("the '833 patent). The parties submitted a Joint Claim Construction Brief (D.I. 112) and exhibits (D.I. 111). I heard oral argument on December 15, 2025. (D.I. 139).

## I. BACKGROUND

Belden filed a complaint against three related companies, which I will refer to collectively as CommScope. Belden alleges infringement of four patents, among which are the '030 and '833 patents. (D.I. 1 at ¶¶ 26-41). Broadly speaking, the '030 and '833 patents concern the application of "electromagnetic interference (EMI) controlling tape . . . for unshielded twisted pair (UTP) cable[s]." ('030 patent, Abstract; '833 patent, Abstract). The two patents have seventy claims between them. At the hearing, I learned that Plaintiff was only asserting ten of them. (D.I. 139 at 3).

## 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) (alteration in original) (quoting *Phillips*, 415 F.3d at 1324). 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). "While claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims." *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012) (citing *Phillips*, 415 F.3d at 1323).

"[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." *Phillips*, 415 F.3d 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 Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (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 (quoting *Markman*, 52 F.3d at 980). 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.*

## III. CONSTRUCTION OF AGREED-UPON TERMS

I adopt the following agreed-upon constructions:

| Claim Term | Claims | Construction |
|---|---|---|
| N/A | '833 Patent, Claims 10, 22, 36 | Preamble is not limiting. |
| "filler means" | '833 Patent, Claim 36 | Function: electromagnetically separating a first conductor pair from a second conductor pair<br><br>Structure: Filler 108, 108', and 108'', described and depicted in the '833 Patent in at least Figs. 1, 2A, 2B, 2C, 2D, 2E, 3B, 3C, and 3D, and in at least 2:34-42, 6:17-25, 6:55-7:23, 7:31-37, 9:21-24, and 9:33-37, and equivalents thereof |
| "twisted pair of insulated conductors" | '030 Patent, Claims 1, 9, and 18 | "pair of conductors, each covered by insulation, where the pair of conductors is arranged in a twisted fashion; the conductors need not be twisted together in a helix" |
| "the conductive material of the barrier tape extending to each lateral edge of the two layers of the dielectric material" | '030 Patent, Claims 1 and 18 | "the conductive material of the barrier tape extends to each edge running along the sides of the tape parallel to the longitudinal direction of the two layers of the dielectric material" |
| "[a filler portion configured to / filler means for] electromagnetically [separate / separating] a first conductor pair from a second conductor pair so as to reduce electromagnetic cross-talk between the first and second conductor pairs during operation of the cable" | '833 Patent, Claims 22 and 36 | "the [filler portion/filler means] is configured to separate the electromagnetic fields of the first and second pairs of conductors to reduce electromagnetic cross-talk between them during operation of the cable" |

## IV. CONSTRUCTION OF DISPUTED TERMS

The parties dispute six terms. I set forth some representative claims showing the disputed terms.

Term 1 implicates Claim 1 of the '030 Patent. Term 2 implicates Claim 11 of the '030 Patent. Terms 3 and 6 implicate Claims 10, 22, and 36 of the '833 Patent; here, Claim 10 is representative of the language at issue, so only Claim 10 is reproduced below. Term 4 implicates Claim 17 of the '833 Patent. Term 5 implicates Claim 22 of the '833 Patent.

Claim 1 of the '030 Patent states:

> A cable, comprising:
> a first twisted pair of insulated conductors;
> a second twisted pair of insulated conductors;
> a filler separating the first twisted pair of insulated conductors from the second twisted pair of insulated conductors; and
> a multi-layer ***conductive barrier tape comprising a continuous conductive material contained between two layers of dielectric material***, the conductive material of the barrier tape extending to each lateral edge of the two layers of the dielectric material, the barrier tape surrounding the first twisted pair of insulated conductors, the second twisted pair of insulated conductors, and the filler.

('030 Patent, 11:26-39 (disputed terms bolded and italicized)). Claim 11 of the '030 Patent states:

> The cable of claim **10**, wherein ***a seam of the barrier tape is positioned above a terminal portion of an arm of the filler***.

('030 Patent, 12:11-14 (disputed terms bolded and italicized)). Claim 10 of the '833 Patent states:

> A cable for reducing electromagnetic interference between pairs of conductors in the cable comprising:
> a first pair of conductors;
> a second pair of conductors;
> a non-conductive filler member configured to non-conductively separate the first pair of conductors from the second pair of conductors so as to reduce electromagnetic interference between the first and second pairs of conductors during operation of the cable;

a multi-layer barrier tape configured to encircle the non-conductive filler member and the first and second pairs of conductors, ***wherein the multi-layer barrier tape comprises a conductive layer positioned between a first non-conductive layer and a second non-conductive layer***;

wherein the non-conductive filler member includes a first terminal portion and a second terminal portion;

***wherein the non-conductive filler member and the multi-layer barrier tape are configured to reduce electromagnetic interference between the first and second pairs of conductors of the cable by non-conductively shielding the first and second pairs of conductors from being electrically coupled to each other.***

('833 Patent, 12:45-67 (disputed terms bolded and italicized)). Claim 17 of the '833 Patent states:

The cable of claim 10, ***wherein the non-conductive filler member is configured to extend along a longitudinal portion of the cable so as to non-conductively shield the first and second pairs of conductors along the longitudinal portion of the cable.***

('833 Patent, 13:23-27 (disputed terms bolded and italicized)). Claim 22 of the '833 Patent states:.

A cable having reduced electromagnetic cross-talk between conductor pairs comprising:

a filler portion configured to electromagnetically separate a first conductor pair from a second conductor pair so as to reduce electromagnetic cross-talk between the first and second conductor pairs during operation of the cable;

a ***barrier portion configured to encircle the filler portion and the first and second conductor pairs so as to non-conductively shield the first and second conductor pairs and reduce electromagnetic cross-talk between the first and second conductor pairs during operation of the cable***, wherein the barrier portion comprises a conductive layer positioned between a first non-conductive layer and a second non-conductive layer;

wherein the filler portion and the barrier portion are configured to reduce electromagnetic cross-talk between the first and second conductor pairs of the cable by non-conductively shielding the first and second conductor pairs from being electrically coupled to each other; and

wherein the filler portion and the barrier portion are configured to extend along a longitudinal portion of the cable so as to reduce electromagnetic cross-talk between the first and second conductor pairs along the longitudinal portion of the cable.

('833 Patent, 13:53-14:12 (disputed terms bolded and italicized)).

1. **"conductive barrier tape comprising a continuous conductive material contained between two layers of a dielectric material" ('030 Patent, Claim 1)**
    a. *Plaintiff's proposed construction*: "the conductive material contained between two layers of a dielectric material of the barrier tape extends uninterrupted from one end of the tape to the opposite end of the tape"
    b. *Defendants' proposed construction*: No construction necessary, but if construed, then: "continuous conductive material" is conductive material that extends uninterrupted all the way from one edge of the barrier tape to the opposite edge of the barrier tape
    c. *Court's construction*: "the continuous conductive material contained between two layers of dielectric material does not contain gaps."

The fundamental dispute in connection with this term is centered around the meaning of the term "continuous." (D.I. 139 at 6).

Belden argues that a "continuous" material should be construed as implicating continuous material end-to-end lengthwise along the cable. (D.I. 112 at 3). Belden has two main arguments in support of this position. First, Belden notes, "Turning to the specification of the '030 Patent, one embodiment of the barrier tape is described as 'an ***electrically continuous*** electromagnetic (EMI) barrier tape . . . [having] three layers in a dielectric/conductive/dielectric configuration, such as polyester (PET)/Aluminum foil/polyester (PET.)' ['030 Patent, 6:3-8]. . . . [A]pplication of the barrier tape [] around the twisted pairs [] of conductors for the length of the cable provides a continuous conductive material surrounding the twisted pairs of conductors." Belden's expert notes that a "POSA would understand that [this description] is referring to the material being continuous . . . for the length of the tape." (D.I. 113 at JA0025). Second, Belden argues that construing this term otherwise would lead to an absurd result, namely, that "a one hundred foot length of barrier tape would have a 'continuous conductive material' even if only one foot of the tape had conductive material as long as the material extended across the entire width of the tape for that single foot.'" (*See* D.I. 112 at 5).

CommScope's position is that the "continuous" material should be construed as continuing from one edge of the barrier tape to the other end of the barrier tape. CommScope notes that

Belden's proposed construction is not actually supported by the text of the patent: "With respect to the barrier tape, the specification uses the word 'edge' as Belden points out. . . . Belden's proposal introduces the term 'end,' which is never used in the specification concerning the tape." (*Id.* at 6). CommScope then notes that the term "continuous is an adjective that describes the continuous material, i.e., the conductive material is itself continuous. The adjective does not describe the conductive material's relationship to another component . . . or how long it must be continuous." (*Id.* at 7). In support of its position, CommScope cites to the prosecution history of the '030 patent, noting that "Belden inserted the Term to overcome the Nordin reference's disclosure of 'discontinuous conductive segments' with 'gaps' between them." (*Id.* at 8).

I think that CommScope has the better of the argument. As CommScope rightly points out, Belden's construction would read the term "end" into the language of the claim, despite the fact that the claim only refers to the barrier tape "extending to each lateral *edge*." ('030 Patent at Claim 1, 11:34-35). CommScope's argument as to the scope of the adjective, "continuous" also persuades me. "Continuous" adjectivally modifies the phrase "conductive material" and not some other phrase or word in the claim. (*Id.* at Claim 1, 11:32-33). Furthermore, the fact that the continuous nature of the conductive material refers to the lack of gaps found in the conductive material is supported by the patent's prosecution history. The following passage is illustrative:

> First, as Nordin explains, the conductive material is not continuous . . . but rather contains gaps. . . . Nordin even argues that these gaps are necessary to "reduce or eliminate radiation[."]

D.I. 113 at JA-0468.

Belden's arguments fail to persuade me otherwise. As Belden itself notes, only "*one* embodiment of the barrier tape is described" as containing an "electrically continuous" EMI barrier tape. As I have noted, I don't think "continuous" refers to the length of the conductive material.

That said, even if I were to assume that "continuity" related to the length of the conductive material, I still do not see why Belden's argument, that "*one*" embodiment of the barrier tape supports its argument that "continuous" implies that the patent requires that the conductive material cover the entire length of the barrier tape, would require that the conductive material cover the entire length of the barrier tape for *all* possible embodiments.

The available intrinsic evidence and the grammatical position of the word "continuous" indicates that "continuous" refers not to the length of the conductive material, as Belden suggests, but rather to the fact that the conductive material does not contain gaps. (D.I. 139 at 24). Therefore, I construe "continuous conductive material contained between two layers of a dielectric material" as "the conductive material contained between two layers of dielectric material does not contain gaps."

2. **"a seam of the barrier tape is positioned above a terminal portion of an arm of the filler" ('030 Patent, claim 11)**
    a. *Plaintiff's proposed construction*: No construction necessary, but if construed, then: "a seam of the barrier tape is located above a terminal portion of an arm of the filler at various (but not necessarily all) positions along the longitudinal length of the filler"
    b. *Defendants' proposed construction*: "a seam of the barrier tape is located above a terminal portion of an arm of the filler at all positions along the longitudinal length of the filler" or, alternatively, "Seam refers to the seam itself, not a portion of the seam."
    c. *Court's construction*: "Seam refers to the seam itself, not a portion of the seam."[1]

The fundamental dispute at issue in this term is whether the seam of the barrier tape must be positioned above the terminal portion of the arm of the filler at various but not all positions

[1] I did not hear argument on this term. When I was preparing for the argument, I thought there were seventy asserted claims, and this term impacted exactly one of them. (D.I. 139 at 84). Almost no one takes more than ten claims to trial, so opining on one claim out of seventy would involve a high risk that I would just be giving an advisory opinion. So I didn't read the relevant portion of the brief, and it made no sense to have argument on something for which I was not prepared.

along the length of the filler, or whether the seam must be positioned above all positions along the length of the filler.

Put another way, the dispute is centered on whether the claimed term should cover Fixed Tape Control ("FTC") application methods or whether it should also cover Oscillating Tape Control ("OTC") application methods. (*See* D.I. 112 at 19). FTC requires that the "angle of application of the barrier tape [be] configured to match a helical twist angle of the cable, and edges of the barrier tape [be] precisely placed on terminal portions of arms of the filler. Accordingly, the tape edges do not fall on top of or periodically cross over the pairs of conductors." ('030 Patent at 2:37-43). OTC requires that "the angle of application of the barrier tape [be] continuously varied across a predetermined range. Edges of the barrier tape cross all of the conductor pairs, but at varying periodicity, with the tape edge not consistently proximate to a given pair in the cable." (*Id.* at 2:48-52).

Belden argues that the disputed term in Claim 11 "should be construed to cover application methods in which a seam of the barrier tape is positioned above a terminal portion of the arm of the filler for at least various (but not necessarily all) positions along the filler." (D.I. 112 at 11). That is, Belden argues that the disputed claim should cover both FTC and OTC. Belden notes that construing the disputed term as CommScope prefers would effectively "narrow the claims to cover FTC but exclude OTC." (*Id.* at 18). Belden argues that this cannot be the proper result, as "there is no disclaimer in the ['030] Patent that supports excluding one of the two embodiments, and CommScope does not claim that there is." (*Id.*).

In support of its position, first, CommScope argues that the claim language only uses the word "portion" to refer to "filler." (*Id.* at 14). As such, CommScope argues that the combination of "portion" and "filler," and the absence of a language tying "portion" to "seam," shows that "the

claim is referring to the [entire] seam itself, not a portion of the seam." (*Id.*). Second, CommScope notes that "reading the claim in view of the specification" supports CommScope's position. (*Id.*). CommScope notes that the specification uses the following language to describe FTC:

> In one aspect, the present disclosure is directed to a fixed tape control high performance data cable. . . . [A] seam of the conductive barrier tape is positioned above a terminal portion of an arm of the filler.

*Id.* at 20 (quoting '030 patent at 2:59-3:4).

> In contrast, the following language is used to describe OTC:
>
> In another aspect, the present disclosure is directed to an oscillating tape control high performance data cable. . . [that] includes a conductive barrier tape . . . [that] is configured in a helical twist at an application angle varying between a second angle and a third angle.

D.I. 112 at 20 (citing '030 patent at 3:20-34).

Finally, CommScope notes that, contrary to what Belden suggests, CommScope's proposed construction of the disputed term would not actually exclude OTC. (D.I. 112 at 20). "CommScope agrees that broader independent claim 1 covers both OTC and FTC. CommScope's point is that narrower dependent claim 11 focuses on FTC." (*Id.*). CommScope notes that even if claim 11 only covers FTC, the result would still be consonant with principles of patent law (*id.* at 21), given the Federal Circuit's holding, "It is not necessary that each claim read on every embodiment." *Baran v. Med. Device Techs., Inc.*, 616 F.3d 1309, 1316 (Fed. Cir. 2010).

I think CommScope has the better of the argument. The disputed claim reads: "The cable of claim **10**, wherein *a seam of the barrier tape is positioned above a terminal portion of an arm of the filler.*" ('030 Patent at 12:11-13) (emphasis added). As CommScope correctly notes, this language shows up almost word for word in the specification in conjunction with FTC: "In . . . fixed tape control . . . *a seam of the conductive barrier tape is positioned above a terminal portion of an arm of the filler.*" (*id.* at 2:59-3:4) (emphasis added). "The specification is the single best

guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1321 (internal citation omitted). Here, where the language of the specification and the language of the claim almost exactly coincide, I am inclined to construe the claim term accordingly. Furthermore, I do not find Belden's argument convincing, that adopting CommScope's construction would imply the existence of an undeclared disclaimer of OTC. As CommScope rightly points out (D.I. 112 at 20), the Federal Circuit has held, "It is often the case that different claims are directed to and cover different disclosed embodiments." *Helmsderfer v. Bobrick Washroom Equipment, Inc.*, 527 F.3d 1379, 1383 (Fed. Cir. 2008). The fact that a given claim in a patent does not describe some given embodiments "does not mean these embodiments are all excluded from the scope of the invention, but rather that they are excluded from the scope of these particular claims." *Id.* "[A] claim need not cover all embodiments," and as such, I think it would not be improper to construe claim 11 as covering only FTC and not OTC. *Intamin Ltd. v. Magnetar Techs., Corp.*, 483 F.3d 1328, 1337 (Fed. Cir. 2007).

As such, I will adopt the following construction, which CommScope suggested as an alternate proposal (D.I. 112 at 16): "[S]eam refers to the seam itself, not a portion of the seam."

3. **"wherein the non-conductive filler member and the multilayer barrier tape are configured to reduce electromagnetic interference between the first and second pairs of conductors of the cable by non-conductively shielding the first and second pairs of conductors from being electrically coupled to each other" ('833 Patent, Claim 10: Claims 22 and 36 have similar verbiage)**
    a. *Plaintiff's proposed construction*: Not indefinite, "the physical configuration of the non-conductive filler member and the multi-layer barrier tape within the cable provides shielding that impacts electrical coupling and reduces the electromagnetic interference between the first and second pairs of conductors"
    b. *Defendant's proposed construction*: Indefinite; if not indefinite, then, "each of the non-conductive filler member and the multi-layer barrier tape reduce electromagnetic interference between the first and second pairs of conductors, and the reduction is due to shielding the first and second pairs of conductors from electrically coupling with each other. The shielding must be "non-conductive," meaning that neither the non-conductive filler member nor the multi-layer barrier tape include a continuous layer of conductive material"
    c. *Court's construction*: "the physical configuration of the non-conductive filler member and the multilayer barrier tape reduces electromagnetic interference

> between the first and second pairs of conductors of the cable by non-conductively shielding the first and second pairs of conductors from being electrically coupled to each other. The shielding must be accomplished 'non-conductively,' which means that although the non-conductive filler member and the multilayer barrier tape may include conductive components, the shielding itself must be accomplished by means of the non-conductive components."

Belden notes that the language of "[c]laim 10 is representative" of claims 22 and 36. (D.I. 112 at 22). CommScope does not dispute this. (D.I. 139 at 45). For my analysis, I will focus on this language as it is laid out in claim 10.

The dispute about this claim boils down to two main issues. The first is whether "the non-conductive filler member" and "the multilayer barrier tape" each, individually, is configured to reduce electromagnetic interference/crosstalk, or whether it is the combination of the physical configuration of the non-conductive filler member and the multilayer barrier tape that is, as a whole, configured to reduce electromagnetic interference/crosstalk. The second issue is whether the term, "non-conductively shielding" is indefinite.

Belden argues, "It is . . . [the] physical configuration [of] the 'non-conductive filler member' and the 'multi-layer barrier tape'" that accomplishes the reduction in electromagnetic interference/crosstalk. (D.I. 112 at 24). CommScope argues that "the use of 'and' and the plural 'are'" implies that "the filler and barrier '*each*' reduce cross-talk. . . . If the claim meant to refer to the combination of the filler/barrier instead of each of them, it would have used the singular verb 'is configured.' When two nouns are treated as a collective noun, the singular form is used for the verb." (*Id.* at 29).

I think Belden has the better of the argument. CommScope's assertion, "When two nouns are treated as a collective noun, the singular form is used for the verb," is simply incorrect. Consider the following example. "My mom and dad are driving me to the airport." It would be nonsensical to assume, as CommScope argues, that *each* of my parents is driving. Instead, "mom"

and "dad" are being treated as a collective noun, the use of the plural form, "are driving," notwithstanding. I think it is accordingly clear that the phrase, "wherein the non-conductive filler member and the multilayer barrier tape are configured to reduce electromagnetic interference," implies that the non-conductive filler member and the multilayer barrier tape, as a whole, *are configured* in such a way as to reduce interference, and not that *each* of them, separately, *is configured* in such a way as to reduce interference.

The second problem is centered on how to construe the term, "non-conductively shield." CommScope argues that this term is indefinite. It notes that the industry standard cited in the specification defines a "shield" as "[a] metallic layer placed around a conductor or a group of conductors." (D.I. 112 at 26 (quoting D.I. 113 at JA0110)). At oral argument, CommScope's counsel noted that the meaning of "shield" as understood in the art would be "a piece of metal that blocks . . . radiation." (D.I. 139 at 54:6-7). CommScope notes that "metal is *conductive*—the opposite of '*non*-conductive.' . . . How can you non-conductively shield when a shield is conductive? 'Not A' and 'A' is a contradiction." (D.I. 112 at 26). Belden's position is essentially that "non-conductively shield" is not indefinite and can be understood in the following way: "the physical configuration of filler . . . and conductive barrier tape . . . within the cable provides shielding that impacts electrical coupling and reduces the electromagnetic interference between unshielded twisted pairs . . . via physical separation." (*Id.* at 31-32).

I think Belden has the better of this argument on the indefiniteness question. The adjective, "non-conductively," modifies the word, "shielding." "Shielding," as CommScope's counsel noted at oral argument, entails using metal to block radiation (or EMI). (D.I. 139 at 54:4-11). It strikes me that the phrase, "non-conductively shielding," would be comprehensible as translated into a phrase such as "shielding without using metal to do the shielding." Indeed, CommScope's counsel

conceded at oral argument that such a phrase would in fact be understandable. (*See id.* at 54:12-55:7).

I do not accept CommScope's argument that the phrase, "non-conductively shielding," is somehow logically incomprehensible, akin to saying "not-A and A." There are certain words whose referents are necessarily coextensive with the definition of the word.[2] For example, a whole number is a non-negative integer. As such, "non-integer whole number" is a contradiction in terms. It is impossible to logically conceive of what a non-integer whole number might be. But the word, "shielding," describes both a means or quality (namely, that the thing being done is done so by metal) and a function (namely, that the thing being done is blocking EMI/radiation). One might modify away or negate that means or quality by using an adjective, such as "non-conductively," without falling into a logical quagmire; the function itself, "blocking EMI/radiation," would, in that case, be independently left over, and one can logically conceive of a non-metallic thing that blocks EMI/radiation. Thus, the "not-A and A" argument is not applicable here, and I decline to find the phrase, "non-conductively shielding," indefinite.

There is an additional minor dispute about the term. CommScope argues that the claim language is indefinite, because a POSA would not understand the meaning of the word, "reduce," in the following phrase: "the non-conductive filler member and the multilayer barrier tape are

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[2] There is a distinction between some words that may be characterized as "artifact nouns" and others that may be characterized as "natural kind nouns." "Artifact nouns are typically characterized by an intended function, rather than by some ineffable natural essence." *Bondi v. Vanderstok*, 604 U.S. 458, 470 (2025) (citing S. Grimm & B. Levin, *Artifact Nouns: Reference and Countability*, in 2 Proceedings of the 47th Annual Meeting of the North East Linguistic Society (NELS 47) 55 (2017)) (quotation marks omitted). In contrast, a "natural kind noun" is one that is "characterized by some often ineffable 'natural essence.'" Grimm & Levin at 55. "Shield" may be characterized as an "artifact noun" and "whole number" as a "natural kind noun." I understand "shielding," a modification of "shield," similarly not to be limited to some "ineffable natural essence."

configured to **reduce** electromagnetic interference." (D.I. 112 at 28). CommScope argues, "The term 'reduce' states a comparison. To understand the scope of this term, you need to know: 'reduce' compared to what?" (*Id.*) As I indicated at oral argument, I think this is a poor argument. (*See* D.I. 139 at 65:10-13). I think that "reduce" just means that the configuration of the filler member and barrier tape reduces interference compared to a hypothetical situation where that configuration has not been implemented. This is just how we use "reduce" in ordinary English; the usual reaction to a statement, "I plan to reduce prices at my store," is not generally the question, "Reduce relative to what?" It is simply understood that the prices are to be reduced in comparison to what they had been prior to or absent the prospective reduction. "Reduce" is not indefinite and requires no construction.

The disputed term is thus not indefinite, and I will now construe it. I begin with the first part of the term, "wherein the non-conductive filler member and the multi-layer tape are configured to reduce electromagnetic interference . . ."[3] As I have explained, I am not convinced by CommScope's argument that each of the filler member and the multi-layer tape must reduce electromagnetic interference. I find more convincing Belden's argument that it is the "physical configuration of the non-conductive filler member and the multi-layer barrier tape" that reduces the electromagnetic interference and will construe the term accordingly.

As to "non-conductively shielding," Belden's proposal centers around deleting "non-conductively" to instead read "provides shielding that impacts electrical coupling and reduces the electromagnetic interference." (D.I. 112 at 21). CommScope's proposal would add an additional sentence, "The shielding must be 'non-conductive,' meaning that neither the non-conductive filler

[3] To be perfectly clear, I am construing Claims 10, 22, and 36. I have used the language of Claim 10 here as representative of the language in the other claims.

member nor the multi-layer barrier tape include[s] a continuous layer of conductive material." (*Id.*). I am dissatisfied with both of these proposals. As CommScope correctly notes, Belden's construction essentially asks that I strike out the word, "non-conductively" in the phrase "non-conductively shielding." (*Id.* at 36). Deleting "non-conductively" would fundamentally change the meaning of the phrase "non-conductively shielding," and I decline to follow Belden's construction here. CommScope's proposal, however, goes too far. "Non-conductively shielding" means that whatever is doing the shielding in the given physical configuration is doing so by non-conductive means; I don't see any reason why it should mean that *no* component in the physical configuration is permitted to include "a continuous layer of conductive material." As such, I will construe "non-conductively shielding" by adding the following sentence, "The shielding must be accomplished 'non-conductively,' which means that although the non-conductive filler member and the multilayer barrier tape may include conductive components, the shielding itself must be accomplished by means of the non-conductive components."

4. **"wherein the non-conductive filler member is configured to extend along a longitudinal portion of the cable so as to non-conductively shield the first and second pairs of conductors along the longitudinal portion of the cable" ('833 Patent, Claim 17)**
    a. *Plaintiff's proposed construction*: Not indefinite, "the physical configuration of the non-conductive filler member extends along a longitudinal portion of the cable and separates the first pair of conductors from the second pair of conductors along the longitudinal portion of the cable"
    b. *Defendant's proposed construction*: Indefinite.
    c. *Court's construction*: "wherein the non-conductive filler member is configured to extend along a longitudinal portion of the cable so as to non-conductively shield the first and second pairs of conductors along the longitudinal portion of the cable. The shielding must be accomplished 'non-conductively,' which means that although the non-conductive filler member may include conductive components, the shielding itself must be accomplished by means of the non-conductive components."

The primary point of contention between Belden and CommScope as to this term is whether the phrase, "non-conductively shield," is indefinite. I have already found that this phrase

is not indefinite, as I explained in my construction of Term 3. As such, I will construe "non-conductively shield" by adding the following sentence, "The shielding must be accomplished 'non-conductively,' which means that although the non-conductive filler member and the multilayer barrier tape may include conductive components, the shielding itself must be accomplished by means of the non-conductive components."

At the same time, I will not adopt Belden's proposed construction, insofar as it seeks to rewrite "non-conductively shield[s]" as "separates." Moreover, I will not adopt Belden's proposed rewrite of "wherein the non-conductive filler member is configured to extend" to "the physical configuration of the non-conductive filler member extends." The plain language of the patent states that the non-conductive filler member is configured to extend along the cable, and not that the "physical configuration" of the non-conductive filler member extends along the cable. Belden's proposed construction strikes me as unnecessary and possibly more confusing than the patent language as it is currently written.

5. **"barrier portion configured to encircle the filler portion and the first and second conductor pairs so as to non-conductively shield the first and second conductor pairs and reduce electromagnetic cross-talk between the first and second conductor pairs during operation of the cable" ('833 Patent, Claim 22)**
    a. *Plaintiff's proposed construction*: Not indefinite, "the physical configuration of the barrier portion, which encircles the filler portion and separates a first conductor pair from a second conductor pair, provides shielding that reduces electromagnetic cross-talk between the pairs during operation of the cable"
    b. *Defendant's proposed construction*: Indefinite; if not indefinite, then, "the barrier portion is physically configured to reduce electromagnetic cross-talk between the first and second conductor pairs during operation of the cable as compared to the electromagnetic crosstalk between the first and second conductor pairs of a cable being the same except lacking the barrier portion, and the reduction is due to shielding the first and second conductor pairs from each other. The shielding must be "nonconductive," meaning that the barrier portion does [not] provide any shielding with a continuous layer of conductive material"
    c. *Court's construction*: "barrier portion configured to encircle the filler portion and the first and second conductor pairs so as to non-conductively shield the first and second conductor pairs and reduce electromagnetic cross-talk between the first and second conductor pairs during operation of the cable. The shielding must be

> accomplished 'non-conductively,' which means that although the barrier portion may include conductive components, the shielding itself must be accomplished by means of the non-conductive components."

The dispute around indefiniteness in this term is the same as that of Term 3, i.e., what "non-conductively shield" is supposed to mean and whether "reduce" is indefinite. For the same reasons as I have laid out in my analysis of Term 3, I will construe "non-conductively shield" by adding a sentence, reading, "The shielding must be accomplished 'non-conductively,' which means that although the barrier portion may include conductive components, the shielding itself must be accomplished by means of the non-conductive components." Further, for the reasons I stated in my construction of Term 3, I do not find the use of "reduce" here indefinite.

The only non-redundant issue here is whether this term, as Belden describes it, requires that "the 'barrier portion' on its own . . . 'non-conductively shield the first and second conductor pairs' and 'reduce electromagnetic cross-talk' between them," or whether "it is the physical configuration of the barrier portion encircling the filler portion that provides the 'non-conductive shielding' by physically separating the conductor pairs, thereby reducing electromagnetic cross-talk between the pairs." (D.I. 112 at 45). Belden argues that the context of the claim language, as in claim term 3, suggests that it is the physical configuration of the barrier portion that provides the non-conductive shielding, and not the barrier portion itself. (*Id.*) CommScope points out that this reading does not comport with the grammar of the claim language in this term; unlike the disputed language in term 3, the clause in question here does not read, "the non-conductive filler member *and* the multilayer barrier tape *are* configured," but rather refers to "*a* barrier portion configured to encircle the filler portion . . . so as to non-conductively shield . . . ." (*Id.* at 45-46) (emphasis added).

CommScope has the better of this argument. The claim term is written in such a way as to describe the fact that it is a "barrier portion" itself that is "configured to encircle the filler portion

and the first and second conductor pairs so as to non-conductively shield the first and second conductor pairs and reduce electromagnetic cross-talk." ('833 Patent at 13:60-63). The claim language does not suggest here that the barrier portion is non-conductively shielding and reducing electromagnetic cross-talk in conjunction with anything else.

Finally, both Belden and CommScope suggest adding the word, "physical," either to limit or elucidate the word, "configured." I do not think that this is necessary, and, accordingly, I do not think that this phrase warrants further construction.

6. **wherein the multi-layer barrier tape comprises a conductive layer positioned between a first non-conductive layer and a second non-conductive layer" ('833 Patent, Claims 10, 22, and 36)**
    a. *Plaintiff's proposed construction*: Not indefinite. No construction necessary.
    b. *Defendant's proposed construction*: Indefinite as to meaning of "layer." A "nonconductive layer" should be construed as meaning "a layer that includes sub-layers of conductive and non-conductive material"
    c. *Court's construction*: Not indefinite. No construction necessary.

CommScope argues that an examination of the prosecution history reveals that this term is indefinite. The core of its argument is that, during prosecution, the Examiner rejected Belden's claims based on a prior patent, Nordin. (D.I. 112 at 50). The Nordin patent disclosed "what Nordin called 'barrier layers' on opposite sides of a non-conductive substrate layer. Each 'barrier layer' include[d] discontinuous conductive segments on a non-conductive substrate, and [was] attached to one side of the non-conductive layer with a glue layer." (*Id.*). Belden distinguished their patent from the Nordin Patent by characterizing the Nordin Patent as disclosing a non-conductive layer contained between two outer layers of conductive material. (*Id.* at 52). Hence, CommScope argues, "[I]t is not clear [during prosecution] what the word 'layer' (or 'conductive layer') means. It could mean a single layer made of one conductive material. However, based on the prosecution history, a 'conductive layer' apparently could also be a multi-layer stacking of different conductive and non-conductive sublayers.'" (*Id.* at 52-53).

Belden's argument is essentially that a POSA would understand the Nordin Patent's "barrier layer" as not constituting "independent layers," but rather would "consider the entire structure (first barrier ***layer*** in conjunction with insulating substrate and second barrier ***layer***) as the barrier tape structure." (*Id.* at 56-57). As such, argues Belden, all that the prosecution history demonstrates is that the Nordin Patent disclosed two conductive layers surrounding a non-conductive substrate, whereas the '833 patent disclosed two non-conductive layers surrounding a conductive layer. (*Id.* at 57).

As I noted at oral argument, I agree with Belden. (*See* D.I. 139 at 39:24-40:14). The prosecution history merely shows that Belden distinguished the '833 patent from the Nordin Patent by showing that the Nordin Patent described a non-conductive layer surrounded by two conductive layers, whereas the '833 patent described a conductive layer surrounded by two non-conductive layers. There is no indication in the prosecution history that Belden sought to rewrite or otherwise redefine the meaning of the word, "layer," which has a readily understandable ordinary meaning. There has been no showing that this word, "layer," is indefinite either. Thus, I find it unnecessary to construe this term and decline to do so.

## V. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.