

Transcript of Charles Eldering, Ph.D.

Date: May 21, 2024
Case: CommScope Technologies LLC -v- Belden Inc. (PTAB)

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WORLDWIDE COURT REPORTING & LITIGATION TECHNOLOGY

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

UNITED STATES PATENT AND TRADEMARK OFFICE

_____

BEFORE THE PATENT TRIAL AND APPEAL BOARD

_____

COMMSCOPE TECHNOLOGIES LLC.

Petitioner

v.

BELDEN INC.

Patent Owner

_____

Case IPR2023-01061

Patent 6,998,537

_____

Videotaped Deposition of CHARLES ELDERING, PhD

Conducted Virtually

Tuesday, May 21, 2024

8:12 a.m. CST

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Pages: 1 - 254

Reported By: Karen Klerekoper, CSR-4250, RPR

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Videotaped Deposition of CHARLES ELDERING, PhD, conducted virtually:

Pursuant to Notice, before Karen Klerekoper, Notary Public in and for the State of Michigan.

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A P P E A R A N C E S

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VIDEOGRAPHER JOSE CARRANZA, PLANET DEPOS

INDEX

WITNESS: PAGE:

CHARLES ELDERING PhD

EXAMINATION BY MR. BULLARD: 6

EXAMINATION BY MR. SULLIVAN: 249

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EXHIBIT: PAGE:

(Exhibits attached to transcript.)

Exhibit 1001, '030 patent (previously marked) 22

Exhibit 1, Glew figure 13C 69

Exhibit 1009, 13,622,683, Roberts' reference (previously marked) 115

Exhibit 2, Figure 17 of Roberts 158

Exhibit 1010, Cook reference, (previously marked) 162

Exhibit 3, 10A Glew prior art reference 199

Exhibit 1013, '036 patent (previously marked) 232

Exhibit 4, PDF, elongated piece/rectangle 248

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P R O C E E D I N G S

THE VIDEOGRAPHER: Here begins Media Number 1 in the videotaped deposition of Dr. Charles Eldering in the matter of CommScope Technologies, LLC, versus Belden Incorporated in the Court of the United States Patent and Trademark Office. The case number is IPR 2023-01061. 08:12:03 08:12:06 08:12:11 08:12:14 08:12:16 08:12:21

Today's date is May 21st, 2024, and the time on the video monitor is 8:13 a.m. 08:12:27 08:12:31

Today's -- sorry -- the remote videographer today is Jose Carranza, representing Planet Depos. 08:12:35 08:12:41 08:12:46

All parties of this video deposition are attending remotely. 08:12:47 08:12:49

Would counsel please voice-identify and state whom they're representing. 08:12:51 08:12:54

MR. BULLARD: Good morning, everybody. My name is Mr. William Bullard. I'm representing CommScope, the petitioner, at the Carlson Caspers law firm. 08:12:56 08:12:57 08:13:00 08:13:04

MR. SULLIVAN: Good morning, Denis 08:13:05

Sullivan with the Barclay Damon law firm in Syracuse, New York City, representing the patent owner, Belden Incorporated. 08:13:08 08:13:11 08:13:14

THE VIDEOGRAPHER: Is that everyone? 08:13:23

MR. SULLIVAN: That's all for patent owner. 08:13:24 08:13:26

THE VIDEOGRAPHER: Just making sure. 08:13:26

The court reporter today is Karen Klerekoper, representing Planet Depos, as well. 08:13:28 08:13:31

Would the reporter please swear in the witness. 08:13:34 08:13:37

(Oath stipulation read and agreed by counsel and witness.) 08:13:37 08:13:38

CHARLES ELDERING, PhD, having been duly sworn testified as follows: 08:14:14

EXAMINATION 08:14:14

BY MR. BULLARD: 08:14:15

Q Well, good morning. How are you today? 08:14:15

A I'm okay, Counsel. 08:14:21

Q And would you prefer to be addressed as "sir," "Doctor," something else? 08:14:24 08:14:27

A "Doctor" is fine. Thank you. 08:14:30

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Okay. I'm a little old-fashioned, so I might accidentally slip into "sir," but I'll try to call you "Doctor." 08:14:33 08:14:37 08:14:40

A "Sir" is fine, too. 08:14:42

Q All right. Well, you were in the U.S. military, correct? 08:14:43 08:14:45

A Yes, I was. 08:14:48

Q So, you might have some experience with "sir." 08:14:48 08:14:51

A Yes. Yes, I did. 08:14:53

Q Okay. And do you have anything with you by way of paper copies or electronic copies related to this deposition? 08:14:55 08:14:58 08:15:01

A I -- I do not. 08:15:04

Q Okay. And -- 08:15:06

MR. SULLIVAN: Attorney Bullard, I do want to note that I do have copies of Dr. Eldering's two declarations submitted in this case in a binder that I was planning on making available to them. 08:15:11 08:15:12 08:15:17 08:15:19 08:15:23

MR. BULLARD: Great. That's fine. 08:15:24

Q And, you know, feel free, Doctor, to 08:15:27

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

consult those during the questioning. Just please identify if you are so there is no confusion what's going on, okay? 08:15:30 08:15:33 08:15:35

A Understood. 08:15:37

MR. SULLIVAN: I'll go ahead and provide that to him. And if it's okay, I'll just -- these are Belden Exhibit 2001, which is Dr. Eldering's declaration submitted in support of the preliminary response, and also Belden Exhibit 2012, which is Dr. Eldering's declaration submitted in support of the patent owner response. So, if it's okay with you, Attorney Bullard, I was just going to provide him with that binder. 08:15:38 08:15:40 08:15:44 08:15:50 08:15:52 08:15:57 08:16:00 08:16:03 08:16:07

MR. BULLARD: Great. I assume these are clean copies? 08:16:09 08:16:10

MR. SULLIVAN: Absolutely. 08:16:11

MR. BULLARD: Okay.

MR. SULLIVAN: I should have clarified that. 08:16:12 08:16:14

Q And, Doctor, part of your employment work is sort of working in the patent space at your company, correct? 08:16:19 08:16:24 08:16:27

A That is correct. 08:16:29

Q Okay. So, you probably know this, but 08:16:30

just as a courtesy, do you understand that this 08:16:34

transcript can be potentially asked for in other 08:16:37

patent matters, other patent litigations you might 08:16:42

be a part of, you know, if other attorneys believe 08:16:45

that and if your testimony or your credibility is 08:16:48

relevant to their matters? 08:16:53

MR. SULLIVAN: Objection to form. 08:16:56

A I -- I do understand -- 08:16:58

Q Okay. 08:17:00

A -- that. 08:17:01

Q And you probably know from prior 08:17:03

depositions that there's going to lots of pauses, 08:17:10

and we just all have to be comfortable with 08:17:14

pauses. That's me thinking, you thinking. That's 08:17:16

just the way it goes, okay? 08:17:20

A Understood. 08:17:22

Q Any reason you can't give your best 08:17:23

testimony today? 08:17:25

A There is none. 08:17:26

Q Okay. You have never designed a barrier 08:17:28

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

tape, correct? 08:17:35

A Could you repeat the question, please? 08:17:38

Q Yes, you have never designed a barrier tape for a cable, correct? 08:17:40 08:17:43

A I have never personally designed a barrier tape for a cable, although I've been involved with cables whereby sometimes we may add things and add tape material, but I have not designed a barrier tape, that is correct. 08:17:46 08:17:52 08:17:56 08:18:02 08:18:05

Q And you mentioned may add certain materials to the cable. Do you recall that? 08:18:05 08:18:17

A Yes, I do. 08:18:20

Q Do you have any specific recollection of actually adding a barrier tape to a cable you were working on? 08:18:21 08:18:25 08:18:28

A Can you explain specifically the definition you're using for barrier tape? 08:18:32 08:18:35

Q Yeah, a barrier tape of a similar kind to the barrier tapes in the patent at issue here and the prior art at issue, or other shielding tape. 08:18:40 08:18:42 08:18:47

A I have added tapes at the ends of cable sometimes for waterproofing purposes or for 08:18:51 08:18:57

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

isolation, which, in some contexts, could be considered barrier tapes. 08:19:04 08:19:07

Q These were not shielding tapes, correct? 08:19:09

A No, they were not. 08:19:25

Q And you've never designed a shield tape for a cable, correct? 08:19:27 08:19:32

A That is correct. 08:19:35

Q Okay. You've never designed a filler for a cable, correct? 08:19:38 08:19:42

A I have not personally designed a filler for a cable, that's correct. 08:19:46 08:19:53

Q You've never designed a twisted pair of conductors for a cable, correct? 08:19:54 08:19:57

A Could you repeat the question, please? 08:20:00

Q Yes. You've never designed a twisted pair of conductors for a cable, correct? 08:20:02 08:20:05

A I've certainly created twisted wire pairs, but I have not designed a commercial cable. 08:20:09 08:20:13

Q You've never worked with a slitting machine for tape, correct? 08:20:19 08:20:28

A Not that I can recall. 08:20:32

Q You've never observed the manufacture of 08:20:35

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

tape using a slitting machine, correct? 08:20:44

A I can't recall. 08:20:48

Q Sitting here today, you don't recall any instance when you observed the manufacture of a tape for a cable, correct? 08:20:54 08:20:56 08:21:00

A I can't recall. I mean, I've -- I've been in -- I believe I've been in facilities that manufacture cable, but I don't recall that specific piece of equipment. 08:21:03 08:21:06 08:21:09 08:21:11

Q And you have no specific experience with manufacturing tape for cables, correct? 08:21:15 08:21:32

A Could you repeat the question, please? 08:21:35

Q Yes. You have no specific experience with manufacturing tape for cables, correct? 08:21:37 08:21:41

A None that I can recall. 08:21:45

Q You have never examined a sheet of tape for a cable, correct? 08:21:48 08:21:53

A You mean before it has been cut for placement in the cable? 08:22:03 08:22:06

Q Correct. 08:22:08

A I have -- not that I can recall. 08:22:08

Q And you've never worked on sizing tape to 08:22:11

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the correct width for insertion and manufacture of a cable, correct? 08:22:17 08:22:23

A Not that I can recall. 08:22:26

Q And I'm sorry, did -- I didn't get that audio. Could you repeat that? 08:22:27 08:22:32

A I said not that I can recall. 08:22:33

Q Why don't I just re-ask the question. We can go that way, okay? 08:22:35 08:22:40

A Sure. 08:22:41

Q You have never worked on the process for sizing tape for a cable to the correct width for insertion into the cable, correct? 08:22:42 08:22:48 08:22:54

MR. SULLIVAN: Objection to form. 08:22:57

A I have not. 08:22:59

Q And you have never worked on the helical tape wrapping technique for cables, correct? 08:23:02 08:23:14

A Could you repeat the question, please? 08:23:19

Q Yes. You have never worked on the helical tape wrapping technique for cables, correct? 08:23:21 08:23:25

MR. SULLIVAN: Objection, form. 08:23:30

A I don't understand what you mean "worked on." I've been involved in various cable matters, 08:23:32 08:23:34

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

including this one, where the tape wrapping has been an integral part. 08:23:38 08:23:41

Q Outside this case, you have never worked on the helical tape application technique for cables, correct? 08:23:48 08:23:51 08:23:56

MR. SULLIVAN: Objection to form. 08:23:57

A I can't recall specific instances outside this case. 08:23:59 08:24:03

Q And outside this case, you've never worked on the spiral tape application technique for cables, correct? 08:24:04 08:24:07 08:24:10

A Not that I can recall. 08:24:12

Q Outside this case, you've never worked on the longitudinal tape application technique for cables, correct? 08:24:14 08:24:18 08:24:21

A If you mean in the design, I've worked on cables with such characteristics and such materials, worked with them, but not personally designed them. 08:24:24 08:24:28 08:24:33 08:24:35

Q And you've never worked on the particular part of the cable that was the technique for wrapping the tape around the cable as part of the 08:24:36 08:24:38 08:24:42

construction of the cable, correct? 08:24:47

MR. SULLIVAN: Objection, form. 08:24:51

A Could you repeat the question, please? 08:24:52

Q Yes. You've never worked on the particular part of a cable construction that is the step of wrapping the tape around the other components to construct the cable, correct? 08:24:55 08:24:58 08:25:03 08:25:10

A Not that I can recall. 08:25:14

Q And you've never worked -- or strike that. 08:25:16

Outside this case, you've never worked on the fixed tape control application technique for cables, correct? 08:25:20 08:25:22 08:25:27

A Not that I can recall. 08:25:29

Q And outside this case, you've never worked on the oscillating tape control application technique for cables, correct? 08:25:31 08:25:34 08:25:38

A Not that I can recall. 08:25:40

Q And outside this case, you have no specific experience with wrapping tape around cables, correct? 08:25:42 08:25:45 08:25:48

MR. SULLIVAN: Objection to form. 08:25:50

A Again, as I commented earlier, I have 08:25:52

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

wrapped tape around cables in various installations and applications. 08:25:57 08:26:00

Q Let me ask a more specific question, okay? Outside this case, you have no specific experience with wrapping barrier tapes or shield tapes around cables, correct? 08:26:03 08:26:06 08:26:10 08:26:15

MR. SULLIVAN: Objection to form. 08:26:17

A If you are referring to a manufacturing environment, I have not worked in the manufacture of such cable, but, again, I have wrapped tapes that were either for environmental protection or shielding around cables. 08:26:19 08:26:22 08:26:27 08:26:31 08:26:35

Q You've never designed an unshielded twitted pair cable, correct? 08:26:37 08:26:52

A Yeah, I conducted twisted wire pair cables. I have not been involved in the design of a volume produced manufactured twisted wire pair cable. 08:26:57 08:27:01 08:27:06 08:27:13

Q And you've never designed a category 6A or 6 cable, correct? 08:27:13 08:27:17

A I have not personally designed a category 6 or 6A cable, that is correct. 08:27:19 08:27:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And you've never designed a shielded twisted pair cable, correct? 08:27:25 08:27:30

A I have not personally designed a shielded twisted wire pair cable. 08:27:32 08:27:37

Q You're aware that the -- well, strike that. 08:27:45

I'm going to refer to Belden's patent in this case as the '030 patent. Will you know what I'm referring to? 08:27:50 08:27:55 08:27:58

A Yes, I will. 08:27:59

Q You're aware that -- or strike that. 08:28:00

You have a number of patents, correct? 08:28:24

A Yes, I do. 08:28:26

Q It was a large number. I was impressed. It was a lot. More than 100; is that right? 08:28:27 08:28:31

A More than 150. 08:28:38

Q And to your recollection, none of those patents are directed to the design of a cable, correct? 08:28:40 08:28:48 08:28:51

MR. SULLIVAN: Objection to form. 08:28:52

A There are a large number of telecommunications patents incorporating cable, 08:28:57 08:29:00

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

and there are some patents related to coaxial cable and noise cable systems. But as far as I can recall, none of them are specifically directed at the design of cable. 08:29:03 08:29:10 08:29:14 08:29:17

Q You have no specific experience related to a filler for control placement of pairs of conductors within a data cable and the controlled application angle of the EMI reducing tape, correct? 08:29:19 08:29:29 08:29:34 08:29:38 08:29:43

MR. SULLIVAN: Objection to form. 08:29:45

A Could you repeat the question, please? 08:29:47

Q Sure. It's a bit of a mouthful. 08:29:49

So, outside this case, you have no specific experience with a filler for controlled placement of pairs of conductors within a data cable, and the controlled application angle of the EMI reducing tape, correct? 08:29:51 08:29:54 08:29:58 08:30:02 08:30:07

MR. SULLIVAN: Objection to form. 08:30:12

A Well, that -- in the context of utilizing cables, I've worked with such cables and have been exposed to them and understand them, so I wouldn't agree with that statement. 08:30:14 08:30:18 08:30:22 08:30:25

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Outside this case, you have no specific expertise on the design or construction of either a filler for controlled placement of pairs within a data cable or the controlled application angle of EMI reducing tape, correct? 08:30:26 08:30:32 08:30:38 08:30:42 08:30:46

MR. SULLIVAN: Objection to form. 08:30:51

A If I understand the question correctly and you are asking me if I have been involved in the design and, in particular, the angle of the tape, I have not personally supervised or been involved in such a design. 08:30:52 08:30:54 08:30:57 08:31:01 08:31:05

Q Am I understanding right that you are actually a patent agent, too; is that right? 08:31:08 08:31:11

A Well, yes, I -- I am patent -- took the patent bar many years ago and am a patent agent. 08:31:14 08:31:19

Q Have you worked as a patent agent? 08:31:23

A Well, I'm not sure. I mean, I used my knowledge of the patent fields in some of my work. But in terms of representing anyone at the patent office, which is really the qualification a patent agent -- being a patent agent gives one, I have not represented anyone for many years. I believe 08:31:26 08:31:34 08:31:38 08:31:41 08:31:45 08:31:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

I qualified some patents on my own behalf early on in my career, but I have -- I'm not working as a patent agent currently. 08:31:52 08:31:57 08:32:01

Q Did you study for that patent agent test? 08:32:02

A Yes, I did. 08:32:07

Q Okay. Are you familiar with the concept of plain and ordinary meaning? 08:32:12 08:32:15

A Yes, I mean, I have substantial exposure to that concept and -- and I believe I am familiar with it, yes. 08:32:21 08:32:26 08:32:28

Q And are you familiar with the concept that a patentee can act as his own lexicographer and provide a special definition? 08:32:28 08:32:31 08:32:36

A Yes, I am with -- also with the caveat that that special definition should not be contrary to ordinary meaning. 08:32:38 08:32:41 08:32:44

Q You're aware that the claims of the '030 patent recite a limitation of a, quote, "continuous conductive material"? 08:32:50 08:33:14 08:33:17

A Is there a particular claim you're referring to? Could I see that claim? 08:33:22 08:33:24

Q Yeah, absolutely. And you don't have a 08:33:27

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

copy of the patent; is that right? 08:33:29

A I have my declarations. That's all I have. 08:33:32 08:33:35

Q Sure. I'll put the patent into the chat. 08:33:36

MR. BULLARD: And I would say I get this right about one out of two times. So, I tried to send this to everybody. So, hopefully, Denis, you got this, too. It should be EX1001 ('030 patent). 08:33:43 08:33:59 08:34:00 08:34:02

A/V TECHNICIAN: And, Counsel, will we be labeling this Exhibit 1? 08:34:09 08:34:11

MR. BULLARD: Yes. 08:34:14

A/V TECHNICIAN: Thank you. 08:34:15

MR. SULLIVAN: Can I just comment before you label that? And apologies, Attorney Bullard, my experience with these proceedings is that because the exhibit has already been marked in the proceeding, it's not necessary to mark it again and certainly not with a different number. 08:34:17 08:34:18 08:34:21 08:34:25 08:34:31 08:34:35

MR. BULLARD: Yeah, and I'm fine with that. I agree. There might be one or two things that aren't exhibits, but I'm fine with that. 08:34:38 08:34:39 08:34:42

A/V TECHNICIAN: So, Counsel, you would 08:34:45

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

like to keep it -- I see that the exhibit says 1001. So, you don't want me to put any stickers on this exhibit or any upcoming exhibits? 08:34:48 08:34:50 08:34:54

MR. BULLARD: Not for this one. If there an unmarked exhibit that doesn't have a footer already with an exhibit number, then we can talk about it then. 08:34:59 08:35:01 08:35:04 08:35:06

A/V TECHNICIAN: Okay, sure. No problem. 08:35:07

Q And, Doctor, were you able to get a copy of Exhibit 1001? 08:35:13 08:35:16

A I don't -- I don't see anything on my screen. 08:35:19 08:35:22

Q Do you have up the Zoom dialogue and there is a chat field, and then you probably have a little, like, 1 above it indicating you got a chat? 08:35:24 08:35:28 08:35:30 08:35:33

A Yes. 08:35:34

Q And if you open it up, do you see there is sort of a PDF icon that you can click on? 08:35:36 08:35:40

A Yes, I do. 08:35:42

Q Okay. And once you get that open, and if you could go to the claims at the back, please. 08:35:43 08:35:45

A It's wanting to have me download it. 08:35:55

Q Yeah, that's fine. 08:35:58

MR. SULLIVAN: I think you can just click on the icon itself. It might open, but I'm not sure. 08:36:06 08:36:07 08:36:09

THE WITNESS: No. It seeming not to want to do that. 08:36:09 08:36:14

MR. SULLIVAN: Okay. 08:36:15

THE WITNESS: I'm going to create a folder for this. 08:36:17 08:36:19

A Could you repeat the question, please? 08:37:20

Q Yeah. Absolutely. So, you see in both claim number 1 and claim 18, there is a phrase, quote, "a continuous conductive material," correct? 08:37:23 08:37:26 08:37:32 08:37:36

A Yes, I do see that. 08:37:38

Q In your two declarations in this case, you did not offer any construction of that phrase, correct? 08:37:39 08:37:47 08:37:51

A Counsel, I need to go back and revise my answer. The claim 1 claims: A multilayer conducted barrier tape comprising a continuous 08:37:53 08:37:57 08:38:02

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

conductive material contained between two layers of a dielectric material. The conductive material of the barrier tape extending to each lateral edge of the two layers of dielectric material. 08:38:06 08:38:09 08:38:13 08:38:15

I'm going to stop there. But when I go to -- you mentioned something about claim 18, the language there is: A conductive barrier tape comprising a conductive material contained between two layers of a dielectric material. The conductive material of the barrier tape extending to each lateral edge of the two layers of the dielectric material. 08:38:18 08:38:20 08:38:23 08:38:28 08:38:32 08:38:36 08:38:39 08:38:42

So, I wanted to clarify, because I think you used the word "continuous." 08:38:43 08:38:45

Q Yeah, I appreciate that. That was my mistake. Thank you. You are more attentive than I am right now. 08:38:47 08:38:50 08:38:54

So, let's strike that. 08:38:55

Do you see in claim number 1 the phrase "a continuous conductive material"? 08:38:57 08:39:01

A I do. 08:39:05

Q In your two declarations in this matter, 08:39:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

you did not propose any construction of that particular phrase, correct? 08:39:08 08:39:12

A Let me just confirm that. 08:39:15

(Witness reviewing document.) 08:40:12

A Counsel, I do not see nor do I recall any particular construction of that term. That was proposed in my declarations. 08:40:12 08:40:16 08:40:18

Q So, in your opinions in this case, you applied the plain and ordinary meaning of the phrase "a continuous conductive material," correct? 08:40:20 08:40:29 08:40:32 08:40:37

A Could you repeat the question, please? 08:40:42

Q Yes. For your opinions in this case, you applied the plain and ordinary meaning of, quote, "a continuous conductive material," correct? 08:40:44 08:40:48 08:40:56

A I applied the plain and ordinary meaning in the context of the claim and taking into account the specification, and that would be my answer. 08:40:59 08:41:04 08:41:14 08:41:19

Q And in the context of the claim and the specification, you didn't identify or propose any special definition of the phrase, quote, "a 08:41:19 08:41:27 08:41:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

continuous conductive material," correct? 08:41:35

A Again, I applied the plain and ordinary 08:41:35

meaning in the context of the claim and 08:41:39

specification. And I would add and also based on 08:41:42

my technical experience as to what I would 08:41:44

understand a continuous conductive material to be. 08:41:52

Q So, for this proceeding, you agree that 08:41:57

the plain and ordinary meaning in the context of 08:42:04

the intrinsic record applies to the claim term, 08:42:07

quote, "a continuous conductive material," 08:42:38

correct? 08:42:15

A Could you repeat the question, please? 08:42:15

Q Yes. So, for this proceeding, you agree 08:42:18

that the plain and ordinary meaning governs the 08:42:23

correct interpretation of the phrase, quote, "a 08:42:28

continuous conductive material," correct? 08:42:34

A Well, Counselor, I'm not sure that I, as 08:42:40

the expert, get to determine the final 08:42:42

construction of any terms. I thought you had 08:42:46

asked me if I had used the plain and ordinary 08:42:49

meaning, and I answered, again, that in the 08:42:52

context of the claim specification and my 08:42:54

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

technical expertise. But I didn't mandate any claim constructions. 08:42:56 08:43:00

Q Sure. From your perspective, the plain and ordinary meaning applies to the claim term, quote, "a continuous conductive material," correct? 08:43:02 08:43:07 08:43:14 08:43:17

MR. SULLIVAN: Objection to form. 08:43:18

A Well, I would put it another way. I didn't have any trouble performing my tasks and understanding the claim in the context of the prior art using a plain and ordinary meaning based on the -- in the context of specification and my technical expertise. 08:43:20 08:43:23 08:43:26 08:43:31 08:43:35 08:43:40

Q The plain and ordinary meaning of "continuous" is that there are no discontinuities, correct? 08:43:41 08:44:00 08:44:04

MR. SULLIVAN: Objection to form. 08:44:04

A I don't -- off the top of my head, you're asking me -- what -- let me tell you what I would do, Counselor, when I'm posed with what plain and ordinary meaning is. I get the Miriam Webster dictionary out. So, I -- I don't know have that 08:44:07 08:44:11 08:44:15 08:44:18 08:44:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

in front of me, and I don't know what it says about continuous. So, I would -- I would consult that first. 08:44:24 08:44:27 08:44:29

Q And can you look back at claim 1, please. 08:44:30

A Yes, I'm there. 08:45:00

Q The term "continuous" modifies the conductive material, correct? 08:45:01 08:45:13

A That is correct. 08:45:15

Q It doesn't modify the noun, quote, "barrier tape," correct? 08:45:17 08:45:24

MR. SULLIVAN: Objection to form. 08:45:25

A I'm not understanding the question. 08:45:41

Q Sure. I want to just establish some agreement about some basic grammar with you, okay? 08:45:44 08:45:50

A Okay. 08:45:53

Q So, "continuous" here is an adjective, right? 08:45:55 08:45:58

A I believe so, yes. It -- it's an adjective, as is -- as I'm reading the claim, "continuous" is an adjective, as is "conductive," applied to the noun "material." 08:46:00 08:46:04 08:46:08 08:46:12

Q And the adjective "continuous" is not 08:46:14

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

modifying "the tape," correct? 08:46:17

MR. SULLIVAN: Objection to form. 08:46:24

A I don't understand. If you're asking me 08:46:25

is the word "continuous" in front of the word 08:46:28

"barrier tape" -- or the words "barrier tape," it 08:46:33

is not -- it is not itself -- the word 08:46:36

"continuous" is not in front of the words "barrier 08:46:39

tape." 08:46:42

Q The claim doesn't require that the barrier 08:46:43

tape be continuous, correct? 08:46:46

MR. SULLIVAN: Objection to form. 08:46:50

A Could you repeat the question, please? 08:47:08

Q The claim does not require that the, 08:47:10

quote, "barrier tape" be continuous, correct? 08:47:12

MR. SULLIVAN: Objection to form. 08:47:17

A Well, if you go back to the top of that 08:47:38

fourth element, it says: A multilayer conductive 08:47:43

barrier tape comprising a continuous conductive 08:47:47

material contained between two layers of a 08:47:51

dielectric material, the conductive material of 08:47:53

the barrier tape extending to each lateral edge of 08:47:56

the two layers of dielectric material. 08:48:01

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

I'm understanding that the conductor -- conducted barrier tape comprises a continuous conductive material. 08:48:03 08:48:06 08:48:10

Q Do you see in this claim limitation that there are three different noun phrases recited? Number 1, barrier tape; number 2, conductive material; and number 3, dielectric material. 08:48:16 08:48:19 08:48:22 08:48:25

MR. SULLIVAN: Objection to form. 08:48:28

A Yes, I do. 08:48:30

Q Okay. Which of those three does the claim specify as continuous? 08:48:31 08:48:35

A The -- the conductive material is specified as a continuous conductive material. 08:48:39 08:48:43

Q And there is no requirement about the continuity of the conductive material compared to the dielectric, correct? 08:48:58 08:49:05 08:49:09

MR. SULLIVAN: Objection to form. 08:49:12

A Could you repeat the question, please? 08:49:15

Q Yes. There is no requirement in the plain language of the claim about the continuity of the conductive material compared to the dielectric material, correct? 08:49:17 08:49:21 08:49:23 08:49:27

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A I'm not understanding -- I mean, it's a conductive material contained between two layers of dielectric material. Can you ask your question again? I'm not understanding it, but if you ask it again, I'll listen carefully and try to answer it. 08:49:31 08:49:34 08:49:37 08:49:46 08:49:48 08:49:51

Q Sure. Well, and we can come back. I'm trying to establish some grammatical agreement with you. But we can come back to it okay? 08:49:51 08:49:56 08:50:01

What does "discontinuous" mean? 08:50:05

MR. SULLIVAN: Objection to form. 08:50:07

A Well, I believe -- again, I would prefer to consult the dictionary, but I believe I will venture that "discontinuous," in the context here, means lacks continuity. 08:50:11 08:50:15 08:50:21 08:50:25

Q And what does "continuity" mean? 08:50:38

A I'm going to review the '030 for a second, and I will answer your question correctly. 08:50:49 08:50:52

Q Sure. 08:50:56

(Witness reviewing document.) 08:51:28

A Yes, can you please go ahead and ask your question again? 08:51:28 08:51:32

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q What does "continuity" mean? 08:51:33
A In the context of the '030 patent, 08:51:35
"continuity" would refer to an electrical 08:51:39
continuity in which a DC signal could be sent. 08:51:45
Q You're familiar with 8 1/2 by 11 standard 08:52:03
sheets of paper, right? 08:52:21
A Yes, I am. 08:52:24
Q Okay. And so, I want to just have a brief 08:52:25
discussion with you about a piece of just standard 08:52:28
8 1/2 by 11 paper, okay? 08:52:34
A Okay. 08:52:36
Q If you have a standard piece of 8 1/2 by 08:52:37
11 paper, and you haven't cut it, you haven't 08:52:43
ripped it, you haven't torn it, it's a single 08:52:49
piece of paper, that piece of paper is continuous, 08:52:53
correct? 08:52:56
MR. SULLIVAN: Objection to form. 08:52:58
A Well, I mean, you could consider it to be 08:53:04
a continuous sheet of paper, yes. 08:53:07
Q And if I take that exact same continuous 08:53:11
sheet of paper and I put it on top of a piece of 08:53:15
cardboard, it's still a continuous sheet of paper, 08:53:20

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

correct? 08:53:25

MR. SULLIVAN: Objection to form. 08:53:26

A Could you repeat the question, please? 08:53:35

Q Yes. If I take that exact same piece of paper and I put it on top of a piece of cardboard, that same piece of paper is still a continuous sheet of paper, correct? 08:53:38 08:53:41 08:53:49 08:53:52

MR. SULLIVAN: Objection to form. 08:53:54

A Well, you created a different structure. Now you've got a piece of cardboard with a piece of paper on top, so I'm not sure the meaning of continuous anymore of that sheet of paper. In that context, you're dealing with cardboard. I -- I don't know. It's a sheet of paper on top of a piece of cardboard. 08:54:11 08:54:13 08:54:15 08:54:18 08:54:20 08:54:24 08:54:27

Q Right. But I didn't change the piece of paper at all, okay? 08:54:28 08:54:31

A Again, Counselor, that's fine, and I'll work with you. I don't know what this has to do with conductive material, but I'll continue to work with you on it. 08:54:33 08:54:36 08:54:40 08:54:42

Q Right.

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Go ahead. It's a sheet of paper on a piece of cardboard. 08:54:43 08:54:45

Q I appreciate that. So, you know, can you bear with me here okay? 08:54:45 08:54:51

A Sure. 08:54:53

Q Okay. So, that exact same piece of paper that you described as a continuous sheet of paper, I take that piece of paper, I don't modify the piece of paper in any way, I just place it on top of a piece of cardboard, okay? 08:54:54 08:54:57 08:55:00 08:55:03 08:55:06

A Okay. 08:55:09

Q The piece of paper itself is still a continuous sheet of paper, correct? 08:55:09 08:55:14

MR. SULLIVAN: Objection to form. 08:55:17

A To the extent -- I mean, it's -- if you glued it to the cardboard, I don't know what you have anymore. You've got a piece of cardboard with a glued piece of paper on top, and now -- now it's -- it -- yeah, the piece of paper is still the piece of paper, and the piece of cardboard is a piece of cardboard. 08:55:19 08:55:22 08:55:24 08:55:27 08:55:30 08:55:35 08:55:37

Q And we didn't -- we can wait on gluing, 08:55:39

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

okay? I'm just talking about the piece of paper right now, okay? 08:55:43 08:55:46

So, all I've done is I've taken that piece of paper, same piece of paper, I've laid it on top of a piece of cardboard. The piece of paper itself is still a continuous piece of paper, correct? 08:55:46 08:55:49 08:55:54 08:55:57 08:56:00

MR. SULLIVAN: Objection to form. 08:56:03

A I mean, if we -- I think you stated you didn't cut it or anything, so, I would assume one -- if one was holding it in their hand and considered it continuous, and then they put that same piece of material on top of the other piece of material, presumably you could consider it to be continuous. 08:56:07 08:56:12 08:56:16 08:56:20 08:56:22 08:56:24 08:56:28

Q And it would be the same answer if I now put another piece of cardboard on top and the piece of paper was between the cardboard, correct? The piece of paper itself is still a continuous piece of paper? 08:56:30 08:56:33 08:56:36 08:56:41 08:56:44

MR. SULLIVAN: Objection to form. 08:56:45

A Yeah, again, I guess we'd have a pile 08:56:47

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

of -- yes, we have some cardboard and paper and cardboard, and I -- presumably we could consider nothing has happened to the piece of paper. It could still be considered to be continuous. 08:56:51 08:56:54 08:56:57 08:56:59

Q And it would still be considered to be a continuous piece of paper if the piece of cardboard you put the paper on top was bigger or smaller than the piece of paper, correct? 08:57:01 08:57:04 08:57:07 08:57:11

MR. SULLIVAN: Objection to form. 08:57:15

A Could you repeat the question, please? 08:57:18

Q The piece of paper itself would still be considered a continuous piece of paper whether or not the piece of cardboard it was put between was bigger or smaller than the piece of paper itself, correct? 08:57:21 08:57:25 08:57:29 08:57:33 08:57:36

MR. SULLIVAN: Objection to form. 08:57:38

A Well, again, you're dealing with paper and cardboard. And, you know, I'm working with you, I'm answering the question. This doesn't seem to have anything to do with continuous in the context of the '030 patent, because the continuous there results in continuous conductivity and 08:57:39 08:57:42 08:57:44 08:57:47 08:57:50 08:57:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

connectivity.

So, I'm -- it's your -- you are the one asking the questions. I don't know what's going on with this cardboard, nor do I understand what it has to do with the claim of the '030. But if you want to consider that you've got cardboard that's bigger than the paper and the paper, in some abstract sense, unrelated to the '030 patent, could be considered continuous, yes. 08:57:59 08:58:04 08:58:07 08:58:09 08:58:12 08:58:15 08:58:18 08:58:22

Q So, if I had a big sheet of cardboard, and I had a slightly smaller -- or strike that. 08:58:26 08:58:30

If I have a sheet of cardboard, I have a smaller piece of paper, the piece of paper has no discontinuities in it, I put the piece of paper on top of the bigger piece of cardboard, I put another bigger piece of cardboard on top, you would agree that the piece of paper itself is a continuous piece of paper in that arrangement? 08:58:32 08:58:36 08:58:40 08:58:44 08:58:47 08:58:49 08:58:53

MR. SULLIVAN: Objection to form, asked and answered. 08:58:57 08:59:00

A In that arrangement, which, again, has nothing to do with the '030 patent, nor does it 08:59:00 08:59:04

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

have anything to do with the continuous conductive material described in the '030 patent, you have some piece of paper between two larger pieces of cardboard, and if unrelated to the '030 patent and anything with the discussion of continuity and electricity, one could consider that piece of paper to be continuous. 08:59:07 08:59:09 08:59:12 08:59:15 08:59:20 08:59:23 08:59:26

Q Okay. And let's go back, if you would, please, to the '030 patent. 08:59:29 08:59:42

A Yes, I have that. 08:59:46

Q And you see that claim 1 and claim 18 recite that you have layers of dielectric material, correct? 08:59:47 09:00:20 09:00:24

A Yes, that's correct. 09:00:40

Q In the context of the '030 patent, how many edges does a layer of dielectric material have? 09:01:15 09:01:18 09:01:22

MR. SULLIVAN: Objection to form. 09:01:26

A Could you repeat the question, please? 09:01:33

Q Yes. In the context of the '030 patent, how many edges does a layer of dielectric material have? 09:01:36 09:01:42 09:01:46

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 09:01:49

A Are you referring to a specific 09:02:06

embodiment? Can you be more specific? 09:02:22

Q So, my understanding is that a layer of 09:02:12

dielectric material has four edges like any 09:02:41

rectangle. 09:02:44

Do you agree with that or disagree with 09:02:45

that? 09:02:47

MR. SULLIVAN: Objection to form. 09:02:47

A I'm a little confused. The way I think of 09:02:50

a dielectric material is typically, and in the 09:02:54

context of '030 patent, is a layer. So, if I take 09:03:02

a dielectric -- if -- let's say I took a -- I 09:03:07

could take a conductive -- a film of a conductive 09:03:12

film, and I could place upon it through various 09:03:18

mechanisms a dielectric material. I could spin on 09:03:25

a polymer. I could deposit, you know, apparatus 09:03:29

designed to deposit through sputtering or 09:03:34

mechanism, so I could sputter a layer of 09:03:37

dielectric on it. 09:03:39

How many edges does it have? I don't 09:03:40

know. Is it -- is it a round wafer? If it's a 09:03:44

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

round waiver, it has no edges. 09:03:47

If I cut a -- cut different shapes out of it. 09:03:49 09:03:51

So, I'm -- I'm trying to work with you here, but I'm a little confused. That's why I asked for a specific embodiment. 09:03:52 09:03:53 09:03:57

Q Sure. Do you agree that a rectangle has four edges? 09:03:59 09:04:03

A Yes. 09:04:04

Q Do you agree that if your dielectric material is in the shape of a rectangle, then it has four edges? 09:04:08 09:04:14 09:04:17

A Well, I'm sorry, I'm not trying to be difficult, but if you told me that you had -- if you gave me a square of a conductive material and you told me to place a dielectric on it -- and I say that because typically sometimes dielectrics are not self-standing. So, if you gave me a square of conductive material and I placed a dielectric on it, I would agree in that case that that dielectric exhibited a top surface and four edges. And then the bottom surface in that 09:04:20 09:04:23 09:04:28 09:04:34 09:04:38 09:04:42 09:04:45 09:04:49 09:04:51 09:04:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

example would be presumably adhered to the metal. 09:04:58

Q In the context of the '030 patent where you have a layer or -- well, you know, strike that. 09:05:06 09:05:09 09:05:33

The barrier tape in the context of the '030 patent is rectangular in shape when it's unwrapped, correct? 09:05:33 09:05:35 09:05:41

MR. SULLIVAN: Objection to form. 09:05:44

A Again, do you have a specific embodiment of the '030 patent you would like to discuss, or did you want me to look for one? 09:05:46 09:05:50 09:05:52

Q Sure. You can look at -- why don't you look at figure 3E. 09:05:54 09:06:09

A I'm looking at figure 3B. 09:06:35

Q I'm sorry, 3E as in echo. 09:06:37

A Oh, sorry. I'm looking at figure 3E. 09:06:41

Q And do you see element 110? 09:06:56

A Yes, I do. 09:07:02

Q The -- and you understand that 110 is the barrier tape? 09:07:03 09:07:20

A I can confirm that, but, as I recall, 110 is the barrier tape. 09:07:21 09:07:29

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Barrier tape 110 has a rectangular shape, correct? 09:07:30 09:07:34

MR. SULLIVAN: Objection to form. 09:07:36

A Hold on one second, Counselor. Let me... 09:07:46

Q Sure. 09:07:52

(Witness reviewing document.) 09:08:26

A Yes, go ahead. Could you repeat the question, please? 09:08:26 09:08:28

Q Yes. Barrier tape 110, before it is wrapped, has a rectangular shape, correct? 09:08:29 09:08:32

A Well, as with any tape, let's -- I -- let me answer that in -- in a way -- I need to answer that in a way that -- I'm going to describe it visually. A roll of tape as a barrier tape could be understood to be a very elongated rectangle, such as that which would be encountered on a roll of tape. 09:08:36 09:08:42 09:08:47 09:08:50 09:08:55 09:09:05 09:09:11

Q So, the barrier tape could be understand as an elongated rectangle, correct? 09:09:19 09:09:20

A Yeah, I mean, it's a very -- yeah, it's a very elongated rectangle. 09:09:24 09:09:29

Q And in the context of the '030 patent, the 09:09:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

barrier tape is comprised of three layers, a dielectric layer, a conductive layer, and then another dielectric layer, correct? 09:09:34 09:09:37 09:09:41

A I believe that's accurate, yes. 09:09:46

Q And each -- and strike that. 09:09:47

The dielectric layer in the barrier tape can also be understood as an elongated rectangle, correct? 09:09:51 09:09:54 09:09:58

A I -- I guess if you want to look it that way. It's a -- it's a layer placed on the tape and would then assume an elongated rectangular shape such as that of the tape. 09:10:06 09:10:09 09:10:10 09:10:16

Q So, the dielectric layer in the tape is going to have four edges like a rectangle, correct? 09:10:26 09:10:29 09:10:33

MR. SULLIVAN: Objection to form. 09:10:36

A The dielectric layer will have edges and a top surface and a bottom surface. 09:10:44 09:10:47

Q And specifically, the dielectric layer will have a top -- one top surface, one bottom surface, and four edges, correct? 09:10:51 09:10:56 09:10:59

MR. SULLIVAN: Objection, form. 09:11:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Well, if it's -- if it's part of the -- the tape, it will assume the shape of an elongated rectangle, and one could consider the long -- that the ends of the tape, those could be considered to be edges. They usually consider them to be the beginning and the end of the tape, but they are technically edges. 09:11:06 09:11:08 09:11:12 09:11:17 09:11:20 09:11:23 09:11:26

Q Meaning that there are a total of four edges, correct? 09:11:28 09:11:30

MR. SULLIVAN: Objection --

A I believe -- 09:11:33

MR. SULLIVAN: Objection to form. 09:11:33

A I believe you could view it that way, yes. 09:11:34

Q Okay. And so if we go back to claim number 1, please. And please just let me know when you're there. 09:11:37 09:11:45 09:12:01

A I'm there. 09:12:02

Q And you see that claim number 1 and also claim 18 requires that the conductive material of the barrier tape, quote, "extending to each lateral edge..." -- or strike that. 09:12:03 09:12:10 09:12:19 09:12:22

You see in claim number 1 that claim 09:12:26

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

requires the conductive material extends to each lateral edge of the layers of dielectric material? 09:12:29 09:12:32

A The -- the language is that the -- hold on, let me zoom in. 09:12:40 09:12:43

The conductive material of the barrier tape, extending to each lateral edge of the two layers of the dielectric material. 09:12:48 09:12:50 09:12:53

Q So, there is no requirement in the claim that the conductive material extend to all four edges, correct? 09:12:59 09:13:02 09:13:06

MR. SULLIVAN: Objection to form. 09:13:10

A Could you repeat the question, please? 09:13:13

Q Yes. There is no requirement in the claim that the conductive material extend to all four edges. The conductive material only needs to extend to the lateral edges, correct? 09:13:16 09:13:18 09:13:21 09:13:26

A I would not agree with that, no. 09:13:29

Q Can you read for me where the claim requires the barrier tape extend to all four edges? 09:13:31 09:13:39 09:13:43

A It says that the barrier tape comprises a continuous conductive material. 09:13:44 09:13:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And are you -- and the word "continuous" modifies "conductive material," correct? 09:13:52 09:13:58

A That is correct. 09:14:01

Q It doesn't modify the term "dielectric layer," correct? 09:14:01 09:14:06

A It's -- I believe we discussed this previously. Let me go back to it, then. 09:14:09 09:14:11

Could you repeat the question, please? 09:14:15

Q Yeah. The term "conductive" -- or I'm sorry -- strike that. 09:14:17 09:14:20

The term "continuous" modifies "conductive material," not "dielectric layer," correct? 09:14:21 09:14:26

MR. SULLIVAN: Objection to form. 09:14:37

A It says: A multilayer conductive barrier tape comprising a continuous conductive material contained between two layers of a dielectric material. 09:14:46 09:14:49 09:14:53 09:14:58

Q Right. The claim only requires that the conductive material itself be continuous. It doesn't require it be continuous with respect to the separately recited dielectric layer, correct? 09:15:05 09:15:08 09:15:11 09:15:14

A I -- could you repeat the question, 09:15:21

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

please? 09:15:25

Q Yeah. The claim requires that the 09:15:26

conductive material itself be continuous, not that 09:15:28

it be continuous with respect to the dielectric 09:15:32

layer, correct? 09:15:37

MR. SULLIVAN: Objection to form. 09:15:39

A I can't understand that question. I'll 09:15:44

answer -- the tape is described clearly, and the 09:15:46

claim is consistent with the specification that 09:15:52

the tape has a dielectric layer on both sides. 09:15:54

The dielectric layers are understood to be 09:15:58

insulators, and so the tape has continuous 09:16:01

electrical conducting material and it's covered by 09:16:06

dielectric. 09:16:11

Q You agree that the claim recites that the 09:16:24

conductive material extends to the, quote, 09:16:26

"lateral edge," correct? 09:16:32

A It -- it indicates the conductive material 09:16:38

extend to the lateral edge of the two layers of 09:16:50

the dielectric material. 09:16:53

Q And it doesn't say extending to, quote, 09:16:54

"all four edges," correct? 09:16:57

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 09:16:59

A Could you repeat your question, please? 09:18:08

Q The claim states a requirement that the conductive material is extending to the lateral edges, but it doesn't state a requirement that the conductive material is extending to all the edges or all four edges, correct? 09:18:16 09:18:19 09:18:23 09:18:26 09:18:29

MR. SULLIVAN: Objection to form. 09:18:31

A I don't agree with that statement. 09:18:33

Q Are your opinions in this case based on the assumption that the claim recites a requirement that the conductive material extend to all four edges? 09:18:37 09:18:45 09:18:48 09:18:51

MR. SULLIVAN: Objection to form. 09:18:53

A It is my understanding that the claim, which requires continuous conductive layer, is understood in the context of the barrier tape comprising an electrically continuous electromagnetic interference EMI barrier tape used to mitigate ground interference in the design. In one embodiment, the tape has three layers in the dielectric/conductive/dielectric configuration. 09:18:59 09:19:03 09:19:10 09:19:13 09:19:17 09:19:21 09:19:24 09:19:27

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Is your opinion that the claims require the conductive material extend to the lateral edges or all four edges? 09:19:45 09:19:48 09:19:52

MR. SULLIVAN: Objection to form. 09:19:55

A The claim describes the conductive material extending to the lateral edges, as well as the barrier tape comprising a continuous conductive material. 09:20:01 09:20:09 09:20:13 09:20:16

Q And so, what's the answer to my question? 09:20:21

A Could you repeat your question, please? 09:20:25

Q Yeah, absolutely. Does the claim require that the conductive material extend to the lateral edges or all four edges? 09:20:28 09:20:29 09:20:33

MR. SULLIVAN: Objection to form, asked and answered. 09:20:36 09:20:40

A In the context of the '030, the barrier tape comprises an electrically continuous electromagnetic interference EMI barrier tape used to mitigate ground interference in the design. 09:20:40 09:20:44 09:20:51 09:20:54

In one embodiment, the tape has three layers in a dielectric/conductive/dielectric configuration, such as polyester PET/aluminum 09:20:59 09:21:02

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

foil/polyester PET. And as such, the barrier tape comprises an electrically continuous layer that can be accessed at the ends of the tape. 09:21:07 09:21:12 09:21:17

Q So, is it your opinion that the claims require the conductive material extend to the lateral edges or all four edges? 09:21:27 09:21:29 09:21:33

MR. SULLIVAN: Objection to form, asked and answered. 09:21:36 09:21:39

A The claims require that the conductive material extend to the lateral edge to form a conductive barrier tape comprising a continuous conductive material. 09:21:39 09:21:44 09:21:48 09:21:52

Q Right. And does that mean, in your opinion, that the claim is requiring the conductive material extend to all four edges or the lateral edges? 09:21:54 09:21:57 09:22:01 09:22:03

MR. SULLIVAN: Objection to form, asked and answered. 09:22:06 09:22:09

A The conductive material would have to extend to the edges to create a barrier tape that creates -- that allows a creation of an electrically continuous electromagnetic 09:22:09 09:22:12 09:22:16 09:22:19

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

interference EMI barrier tape used to mitigate ground interference in the design, the tape with three layers, a dielectric/conductive/dielectric configuration, such as polyester PET/aluminum foil/polyester PET. 09:22:22 09:22:26 09:22:30 09:22:36 09:22:40

Q Okay. So, I'm just asking you about what the plain and ordinary meaning of the claim language requires, okay? 09:22:43 09:22:46 09:22:48

MR. SULLIVAN: Objection to form. 09:22:49

Q Do you understand that? 09:22:55

A Yes, I do. 09:22:56

Q Okay. Does the plain and ordinary meaning of the claim require the conductive material extend to all four edges or the lateral edges? 09:22:57 09:23:02 09:23:06

MR. SULLIVAN: Objection to form. Are you talking about the claim? 09:23:11 09:23:15

MR. BULLARD: Correct. 09:23:18

MR. SULLIVAN: Which claim? And the whole claim? 09:23:19

MR. BULLARD: I'm talking about -- 09:23:21

MR. SULLIVAN: You asked -- 09:23:23

(Indiscernible crosstalk.) 09:23:24

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: You're asking the plain and ordinary meaning of the entirety of claim 1? 09:23:25 09:23:27

MR. BULLARD: Sure. He can -- and he can answer it. 09:23:31 09:23:36

MR. SULLIVAN: Objection to form. 09:23:37

A Could you repeat the question, please? 09:23:39

Q Yes. Does the plain and ordinary meaning of the claim, claim 1, require the conductive material extend to the lateral edge or all four edges? 09:23:42 09:23:49 09:23:57 09:24:01

MR. SULLIVAN: Objection to form, asked and answered. 09:24:03 09:24:06

A So I'm -- sorry, now I'm confused. I thought we were talking -- we were talking about plain and ordinary meaning of a word. Now we're talking about the claim as a whole? 09:24:06 09:24:10 09:24:10 09:24:14

Q Yeah. I'm trying to understand your opinion whether or not the claim requires that the conductive material extend to all four edges or the lateral edges, okay? 09:24:17 09:24:20 09:24:23 09:24:27

A Understood. 09:24:33

Q Okay. So what is the answer? Is your 09:24:34

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

opinion that the claim requires the conductive material extend to the lateral edges or extends to all four edges? 09:24:37 09:24:40 09:24:43

MR. SULLIVAN: Objection to form, asked and answered ten times now. 09:24:45 09:24:48

A The claim requires that the conductive material be continuous and form a barrier tape comprising a continuous conductive material. That would allow the tape to be used such that the tape -- the continuous conductive material is continuous and then creates an electrically continuous electromagnetic interference EMI barrier tape used to mitigate ground inference in the design. One embodiment, the tape has three layers in a dielectric/conductive/dielectric configuration such as polyester PET/aluminum foil/polyester PET. 09:24:50 09:24:53 09:24:57 09:25:02 09:25:16 09:25:25 09:25:32 09:25:37 09:25:40 09:25:42 09:25:44 09:25:50

Q And you were just reading not from the claim but from the specification, correct? 09:25:53 09:25:56

A That's correct. 09:25:57

Q Okay. So, I want you to focus on the claim language itself, okay? 09:25:58 09:26:01

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 09:26:06

Q Are you able to do that? 09:26:08

A Yes. 09:26:09

Q Okay. So I'm asking you about the plain and ordinary meaning of the claim language itself. Okay? 09:26:10 09:26:13 09:26:15

A Again, plain and ordinary meaning, in my mind, my understanding refers to construction of individual words. So, I don't know what you mean by "plain and ordinary meaning of the claim." 09:26:20 09:26:23 09:26:26 09:26:28

Q You don't know what the plain and ordinary meaning of the claim is? 09:26:34 09:26:37

MR. SULLIVAN: Objection to form. 09:26:38

A I -- it's my understanding that the claim terms are construed and that the plain and ordinary meaning of each of the terms can be construed. But I think if you were to ask someone on the street what the plain and ordinary meaning of 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 09:26:40 09:26:49 09:26:51 09:26:56 09:27:01 09:27:03 09:27:07 09:27:10 09:27:14

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the second twisted pair of insulated conductors and a multilayer conductive barrier tape comprising of continuous conductive material contained between two layers of a dielectric material, the conducting material, the barrier tape extending to each lateral edge of the two layers of dielectric material, the barrier tape surrounding the first twisted pair of insulated conductors, the second twisted pair of insulated conductors and the filler, they would have trouble coming up with a plain and ordinary meaning. 09:27:14 09:27:17 09:27:21 09:27:21 09:27:24 09:27:26 09:27:28 09:27:31 09:27:33 09:27:37 09:27:40

Q Are -- 09:27:45

MR. SULLIVAN: Counsel, if you are getting close to a break, we've been going for about an hour and a half and the witness has indicated he'd like to have a break. So, whenever is a good breaking point. 09:27:48 09:27:50 09:27:53 09:27:55 09:27:58

MR. BULLARD: Yeah, absolutely. I just want to try to finish this up. 09:27:59 09:27:59

Q Is there a term or terms -- or strike that. 09:28:02

Is there a term in the claim that you 09:28:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

believe requires that the conductive material extend to all four edges of the dielectric? 09:28:10 09:28:14

MR. SULLIVAN: Objection to form, asked and answered. 09:28:22 09:28:26

A The claim requires a multilayer conductive barrier tape comprising a continuous conductive material. And in order for that material to be used in the context of the specification, it would be continuous such that it could create an electromagnetic barrier to interference. 09:28:26 09:28:30 09:28:33 09:28:38 09:28:46 09:28:51

Q So is your opinion that the term "continuous" requires that the conductive material extend to all four edges of the dielectric? 09:28:59 09:29:01 09:29:05

MR. SULLIVAN: Objection to form, asked and answered. 09:29:08 09:29:13

A The continuity of the layer in the tape -- excuse me -- let me re-articulate that. 09:29:13 09:29:20

The continuity of the conductive material contained between the two layers of dielectric material has to be such that it could create an electromagnetic interference barrier. 09:29:25 09:29:31 09:29:34 09:29:38

Q And does that mean, in your opinion, that 09:29:43

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the word "continuous" requires the conductive material extend to all four edges of the dielectric material? 09:29:45 09:29:48 09:29:51

MR. SULLIVAN: Objection to form, asked and answered. 09:29:52 09:29:54

A It necessarily, in order to function in the context of the specification, has to be a continuous electrical layer. 09:29:54 09:29:57 09:30:01

Q And are you saying that that means that the word "continuous" in the claim requires the conductive material extend to all four edges of the dielectric material? 09:30:04 09:30:07 09:30:10 09:30:13

MR. SULLIVAN: Objection to form, asked and answered. 09:30:15 09:30:18

A It has to be continuous within the barrier tape. 09:30:18 09:30:21

Q And does that mean it has to extend to all four edges of the dielectric? 09:30:22 09:30:26

MR. SULLIVAN: Objection to form, asked and answered. 09:30:28 09:30:33

A The barrier tape has to comprise a continuous conductive layer in order to work as an 09:30:33 09:30:36

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

electromagnetic interference barrier tape, as described in the specification. 09:30:44 09:30:47

Q And so, yes or no, does that mean, in your opinion, the word "continuous" requires the conductive material extend to all four edges of the dielectric material? 09:30:49 09:30:51 09:30:55 09:31:00

MR. SULLIVAN: Objection to form, asked and answered. 09:31:01 09:31:04

A It would have to be continuous in order to make electrical continuity and could be accessed at the ends of the barrier tape. 09:31:04 09:31:06 09:31:11

Q And does that mean, in your opinion, the conductive material has to be both extending to the edges on the end of the barrier tape and the lateral edges? 09:31:14 09:31:18 09:31:20 09:31:26

MR. SULLIVAN: Objection to form. 09:31:31

A The claim requires that the continuous -- the conductive material extend to the lateral edges of the dielectric material, and that the conductive -- the conductive material be continuous such that it could be accessed at either end of the tape, and maintain electrical 09:31:31 09:31:35 09:31:37 09:31:40 09:31:43 09:31:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

conductivity. 09:31:54

Q And yes or no, does that mean, in your opinion, that the word "continuous" requires that the particular relationship in the claim is that the conductive material has to extend to all four edges, the lateral edges and the edges that you identify as the top and the bottom? 09:31:55 09:31:59 09:32:02 09:32:05 09:32:10 09:32:13

MR. SULLIVAN: Objection to form. You've asked this question about 25 times, and he's answered it every time. He just gave you the claim language that he's replying upon. 09:32:15 09:32:18 09:32:21 09:32:24

So, he's asked for a break. Can we take a break and then resume the questions or wrap up? 09:32:26 09:32:29

MR. BULLARD: As soon as he answers yes or no, we can happily go on break. 09:32:30 09:32:33

MR. SULLIVAN: He doesn't need to answer it the way you want him to answer it. He is answering the question. And you've asked 25 times now. He needs a break, a biological break. So, we're going to take a break, or you can just wrap it up. 09:32:33 09:32:34 09:32:37 09:32:39 09:32:43 09:32:45

MR. BULLARD: No, we're just going to -- 09:32:45

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

we're going to have an answer to this question. 09:32:47

Q So, Doctor, can you please just answer yes or no, you have to be able to -- 09:32:50 09:32:53

(Indiscernible crosstalk.) 09:32:55

Q -- your own opinion. Yes or no, does the word "continuous," in your opinion, require that the conductive material extend to all four edges of the dielectric material? 09:32:56 09:32:59 09:33:02 09:33:06

MR. SULLIVAN: Objection to form, asked and answered. 09:33:08 09:33:12

A The word "continuous" indicates that the conductive layer has to be run along the barrier tape such that electrical -- in the context of specification, such that the barrier tape maintains electrical conductivity from one end to the other, which would therefore allow it to act as an electromagnetic shield. 09:33:12 09:33:17 09:33:21 09:33:26 09:33:30 09:33:34 09:33:37

Q And so is the answer yes, or is the answer no? 09:33:41 09:33:44

MR. SULLIVAN: Objection to form, asked and answered. 09:33:44 09:33:48

A The claim requires that the conductive 09:33:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

layer extend to the lateral edges and be a continuous conductive material in the barrier tape, which would allow conduction of electricity from one end of the tape to the other, indicating that that conductive layer would be accessible at the either end of the tape. 09:33:54 09:34:01 09:34:05 09:34:10 09:34:17 09:34:22

Q And when you say "accessible," does that mean it has to extend to those ends? 09:34:23 09:34:26

MR. SULLIVAN: Objection to form. 09:34:28

A In order to meet the limitations of the claim such that the continue -- it is a continuous conductive material, it would be accessible at both ends of the tape. 09:34:30 09:34:34 09:34:38 09:34:43

Q And what do you mean by the word "accessible"? 09:34:46 09:34:48

A That one could connect to the conductive material, if so desired. 09:34:53 09:34:56

Q And does that mean that the conductive material physically extends to the ends of the tape? 09:34:57 09:35:00 09:35:04

A According to the claim, the conductive barrier tape comprises a continuous conductive 09:35:06 09:35:09

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

material, indicating that it would extend from one end of the tape to the other. 09:35:14 09:35:17

Q So, in your opinion, the claim, because of the words -- usage of the word "continuous," would require the conductive material to extend from one end to the other and to the lateral edges? 09:35:19 09:35:23 09:35:26 09:35:29

MR. SULLIVAN: Objection to form, asked and answered. He's told you ten times he's looking at lateral, as well as continuous. 09:35:32 09:35:37 09:35:39

It's -- he needs to take a break. 09:35:43

MR. BULLARD: And that's fine. I'm sorry if that question seemed unfair. 09:35:45 09:35:47

Q Let me ask it this way. I just want to confirm. I think we made progress that your opinion is that looking at the limitation together, the limitation requires that the conductive material extend to both the lateral edges and the edges on the top and the bottom? 09:35:49 09:35:52 09:35:53 09:35:57 09:36:00 09:36:03

MR. SULLIVAN: Objection to form. 09:36:07

A I didn't -- I didn't -- didn't hear a question. 09:36:10 09:36:13

Q Sure. Your opinion is that looking at the 09:36:13

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

barrier tape element together, the claim requires the conductive material extend to both the lateral edges and the edges on the top and the bottom of the dielectric material, correct? 09:36:18 09:36:22 09:36:26 09:36:31

MR. SULLIVAN: Objection to form. 09:36:34

A In that question, now you've brought in the top and the bottom, the top surface and the bottom surface of the dielectric material. So, I don't know what we're talking about now. 09:36:36 09:36:38 09:36:40 09:36:43

Q No, sorry, I'm not trying to talk about the top and the bottom. I'm talking about the edges, okay? 09:36:45 09:36:47 09:36:49

So, your opinion is that looking at the barrier tape element, the claim requires that the conductive material both extend to the lateral edges of the dielectric material and the edges at the end of the dielectric material, as well, correct? 09:36:50 09:36:52 09:36:57 09:36:59 09:37:06 09:37:11

A Well, as I've discussed, the claim language requires that the conductive material of the barrier tape extend to the lateral edges, as well as the conductive barrier tape comprises a 09:37:11 09:37:14 09:37:18 09:37:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

continuous conductive material contained between the two layers of the dialectic material, and that in the context of '030 and the fact that this is a tape, that that continuity would have to extend from one end of the tape to the other. 09:37:25 09:37:28 09:37:30 09:37:33 09:37:37

Q Such that, in your opinion, the conductive material would have to extend to all four edges of the dielectric material? 09:37:40 09:37:44 09:37:47

A The conductive material would have to be continuous along the barrier tape such that it could conduct electricity and therefore comprise an electrically continuous electromagnetic interference barrier tape. 09:37:52 09:37:54 09:37:59 09:38:02 09:38:07

Q What you're saying means it has to extend to all four edges of dielectric material in the barrier tape? 09:38:08 09:38:12 09:38:15

MR. SULLIVAN: Objection to form. 09:38:16

A It has to be continuous along the barrier tape. And therefore, in order to be continuous, the conductive layer would extend to the beginning, if you will, and the end of the barrier tape. 09:38:22 09:38:25 09:38:29 09:38:35 09:38:39

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q In addition to the lateral edges, correct? 09:38:39

A It would -- the conductive layer would extend along the barrier tape from the beginning to the end, as well as extending to the lateral edges. 09:38:44 09:38:47 09:38:51 09:38:56

Q With the end result being the claim would require the conductive material extend to all four edges of the dielectric material? 09:38:57 09:39:00 09:39:04

MR. SULLIVAN: Objection to form. 09:39:07

A The claim requires that the conductive material, the barrier tape extend to the lateral edge of the two layers of dielectric material, as well as the conductive barrier tape comprising a continuous conductive material, indicating that the tape would be able to conduct electricity from one end to the other. 09:39:08 09:39:12 09:39:15 09:39:18 09:39:22 09:39:25 09:39:30

MR. BULLARD: All right. Well, let's take a break. And you're welcome to take a longer break since we went longer. Whatever you and your counsel want to do is fine. We can go off the record. 09:39:34 09:39:35 09:39:37 09:39:40 09:39:43

MR. SULLIVAN: Let's take about 20 09:39:43

minutes. 09:39:44
THE VIDEOGRAPHER: We are going off the 09:39:44
record. The time is 9:40 a.m. 09:39:45
(Off the record.) 09:39:48
THE VIDEOGRAPHER: We are back on the 10:02:26
record. The time is 10:03 a.m. 10:02:27
BY MR. BULLARD: 10:02:31
Q Can you direct your attention back to 10:02:32
claim 1 and claim 18, please. 10:02:34
A Yes. 10:02:36
Q There is no requirement in either of these 10:02:41
two claims that the barrier tape you've wrapped at 10:02:43
any particular angle, correct? 10:02:46
A Yes, that is correct. 10:02:58
Q And so, the claims -- or strike that. 10:02:59
So, claim 1 and claim 18 would allow for 10:03:03
the barrier tape to be wrapped longitudinally, for 10:03:06
example? 10:03:22
A If you mean -- yes, with the understanding 10:03:22
that that would involve having the tape run in a 10:03:25
longitudinal direction and still be wrapped, if 10:03:28
you will, but not in -- at an angle. 10:03:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And the claim -- the claim allows for that wrapping, correct? 10:03:35 10:03:38

A Yes, that is correct. 10:03:42

Q And then I want to go back, for a different reason, don't worry, to the extending to each lateral edge language. Do you see that language? 10:03:51 10:03:53 10:03:54 10:03:57

A Okay. I have coffee now, so I'm okay. 10:03:57

Q Okay. Perfect. 10:04:02

So, if you have a conductive material and it's between two layers of dielectric, then, logically, the conductive material has to either stop short of the lateral edges or at least extend to the lateral edges, correct? 10:04:04 10:04:07 10:04:14 10:04:19 10:04:23

MR. SULLIVAN: Objection to form. 10:04:26

A Could you repeat that, please? 10:04:28

Q Yeah. And so, I'm kind of asking the question just about what I think of as, like, physical geometry here, okay? 10:04:30 10:04:33 10:04:38

So, if you have a conductive material between two layers of dielectric material, that's your configuration, then the conductive material 10:04:44 10:04:46 10:04:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

has to either, one, extend at least to the lateral edges of the dielectrics, or, two, stop short of the lateral edges of the dielectric, correct? 10:04:54 10:04:58 10:05:04

MR. SULLIVAN: Objection to form. 10:05:08

A No, I don't agree with that. 10:05:09

Q Okay. So, what is the other option? 10:05:12

A It could extend past the dielectric. I mean, if -- assuming that the -- if the conductive material was self-supporting, which if it were a foil, it would be self-supporting, then the dielectric, for whatever reason, one could have the dielectric -- that the -- the conductive material could extend out beyond the dielectric, if -- if that was desirable. 10:05:16 10:05:19 10:05:24 10:05:27 10:05:30 10:05:34 10:05:40 10:05:43

Q Okay. And I was trying to capture that with extends at least, but let me ask a question to try to get at your testimony, okay? 10:05:45 10:05:48 10:05:51

So, if you have a conductive material between two layers of dielectric, then logically the conductive material has to have one of three things. Either it extends to the lateral edge of the dielectric; two, it extends to the lateral 10:05:53 10:05:57 10:06:02 10:06:06 10:06:14

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

edge of the dielectric and extends past the edge; 10:06:18
or three, it stops short of the lateral edge, 10:06:21
correct? 10:06:24
A I think that's correct, yes. 10:06:26
Q Okay. And now, can you turn your 10:06:28
attention to the chat. I'm going to attempt to 10:06:33
put a figure into the chat, please. 10:06:37
MR. BULLARD: All right. Hopefully 10:06:56
everybody got a PDF with the name Glew. 10:06:57
Q And just let me know when you're able to 10:07:10
open this? 10:07:12
A/V TECHNICIAN: Counsel, would you like 10:07:13
me to label this exhibit? 10:07:15
MR. BULLARD: Yes. 10:07:17
A/V TECHNICIAN: Go ahead. 10:07:17
MR. BULLARD: I was going to say you can 10:07:22
just label this Deposition Exhibit Number 1. 10:07:22
A/V TECHNICIAN: Sure. 10:07:25
(Marked for identification 10:07:27
Exhibit 1.)
A I'm able to see. It's just one figure? 10:07:38
Q Yes. And do you see that part of figure 10:07:41

is annotated yellow and part of the figure is annotated red? 10:07:44 10:07:47

A I do. 10:07:48

Q Okay. And for completeness, let's do one more step. Do you see another exhibit in the chat now? 10:07:50 10:07:59 10:08:13

A Let me go back there. 10:08:15

Yes. 10:08:24

Q Okay. And when you open it up, will you tell me if you recognize that as the Glew prior art reference at issue in this proceeding. 10:08:24 10:08:26 10:08:30

A Yes, I do. 10:08:59

Q And would you go to figure 13C, which is on PDF page 13. 10:09:01 10:09:05

A Yes, I'm there. 10:09:28

Q Okay. And can you just keep that figure kind of in your mind, and then look back at the figure I put in the chat earlier, that's going to be marked as Deposition Exhibit Number 1. 10:09:29 10:09:32 10:09:36 10:09:40

A Okay, I'm there. 10:09:43

Q And do you recognize, then, that Deposition Exhibit Number 1 is Glew figure 13C 10:09:44 10:09:47

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

with red and yellow annotation added? 10:09:51

A Yes, I do. 10:09:56

Q Okay. And so I want you to focus on the top layer, 137, please. 10:09:59 10:10:05

A Yes. 10:10:12

Q Layer 137 has four edges, correct? 10:10:13

A Presumably. I mean, I see -- see two edges from the perspective -- I think one could assume that there is two other edges in addition to the top surface and bottom surface. 10:10:21 10:10:24 10:10:26 10:10:29

Q And the yellow is an edge and the red is an edge, correct? 10:10:31 10:10:34

A They are two of the edges perpendicular to each other, yes. 10:10:37 10:10:41

Q Okay. And your opinion is that what I have annotated in yellow is the lateral edge in the context of Glew, correct? 10:10:42 10:10:52 10:10:55

A One second, please. 10:10:59

Q Yes. 10:11:00

A Could you repeat the question, please? 10:11:23

Q Yes. In your opinion, the lateral edge of Glew's layer 137 is what I've annotated in yellow, 10:11:26 10:11:36

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

correct? 10:11:41

A That's one of the lateral edges, yes. 10:11:43

There's a lateral edge below it, also. 10:11:46

Q Right. And those are the long edges, 10:11:49

correct? 10:11:51

A I'm -- I'm not sure where you're coming up 10:11:56

with the term "long edge." 10:11:59

Q Well, they're longer than the red edge, 10:12:01

correct? 10:12:03

A In this diagram, that would be accurate, 10:12:06

yes. 10:12:09

Q And in your opinion, lateral edge refers 10:12:09

to the edge running in the longitudinal direction, 10:12:15

correct? 10:12:19

A Could you repeat the question, please? 10:13:03

Q Yes. In your opinion, lateral edge refers 10:13:05

to the edge running in the longitudinal direction, 10:13:09

correct? 10:13:14

A Yes, they are the edges that are parallel 10:13:15

to the longitudinal direction. 10:13:19

Q So in Glew figure 13C what you're 10:13:24

identifying as the lateral edge is the edge that 10:13:29

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

running in the longitudinal direction that's annotated yellow in the figure, correct? 10:13:33 10:13:35

A Yes, that is correct. 10:13:38

Q Okay. 10:13:48

A With the understanding that the yellow is just one of the lateral edges. 10:13:51 10:13:57

Q And so, the yellow edge in figure 13C is also a longitudinal edge, correct? 10:13:59 10:14:04

A Could you repeat your question, please? 10:14:18

Q Yes. In figure 13C, the yellow edge is also a longitudinal edge, correct? 10:14:20 10:14:24

A I -- I don't think I would -- I would not agree with that statement. 10:14:35 10:14:37

Q So, in your opinion, the yellow edge is not a longitudinal edge? 10:14:41 10:14:46

A No, I think what we've established consistent with the specification is that the lateral edge is -- the lateral edges include the yellow edge. And just to be clear, there's three other lateral edges, all of those edges running parallel to the longitudinal direction. The way I like to think about this is that if I was running 10:14:49 10:14:53 10:14:58 10:15:06 10:15:14 10:15:19 10:15:24

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

down the tape, I'm running in the longitudinal direction. And if you bear with me, my example is I'm -- I've got a football and I'm running toward the goal post in the longitudinal direction, and somebody's coming at me, so I'm going to move laterally in order to avoid, let's say, being tackled so that the sideways motion is lateral. And that then allows me to remember that those are the lateral edges. Using such logic, I would not want to refer to them, nor do I think it would be consistent in terms of the specification to call them longitudinal edges. 10:15:29 10:15:33 10:15:38 10:15:41 10:15:44 10:15:47 10:15:53 10:15:57 10:16:02 10:16:08 10:16:13 10:16:18

Q And moving sideways here would be moving in the direction of the red edge, correct? 10:16:22 10:16:26

MR. SULLIVAN: Objection to form. 10:16:29

A Well, I think you could say that moving sideways, pure sideways motion would be parallel to the red edge. 10:16:32 10:16:36 10:16:42

Q Okay. And so, focusing just on the top layer for simplicity, how many lateral edges are there? 10:16:44 10:16:48 10:16:54

A The top layer has -- layer -- if you're 10:16:54

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

referring -- I don't -- hold on a second. Back up the reference. 10:16:59 10:17:07

(Witness reviewing document.) 10:18:16

A Okay. So, 137 is a nonwoven fabric layer. Could you repeat your question, please? 10:18:27 10:18:34

Q Yes. So, focusing just on that top layer -- 10:18:35 10:18:38

A Yes.

Q -- how many lateral edges are there? 10:18:39

A There would be two lateral edges, the illustrated yellow one towards the right of the diagram, and the corresponding edge towards the left parallel to that yellow-colored edge. 10:18:42 10:18:49 10:18:55 10:19:01

Q Which of -- or strike that. 10:19:17

Is the red edge or the yellow edge the longitudinal edge? 10:19:18 10:19:21

MR. SULLIVAN: Objection to form, asked and answered. 10:19:24 10:19:30

A I'm a little -- we -- the discussion has been of the lateral edges, and the yellow edge being one of them for the top layer -- 10:19:30 10:19:35 10:19:43

Q Um-hmm.

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A -- 137, and the corresponding -- there is another corresponding parallel lateral edge. If you're referring to the red ends, I tend to think of those in the context of the tape as the -- they call them the first end and the second end, or the beginning end and -- well, the -- that's not a good description. 10:19:46 10:19:50 10:19:54 10:19:59 10:20:07 10:20:10 10:20:14

But I would not call them -- I mean, if you wanted to call them longitudinal edges, I'm not sure that would be incorrect. But in the context of the tape, I think of the lateral edges as the yellow edge and the corresponding one parallel to it, and I would just think of the other ends as the first end and the second end of the tape. 10:20:16 10:20:20 10:20:25 10:20:28 10:20:31 10:20:33 10:20:37 10:20:41

Q So, in your opinion, would you call the red edges longitudinal edges? 10:20:41 10:20:43

MR. SULLIVAN: Objection to form. 10:20:47

A In my opinion, that makes things somewhat confusing. So, I like to think of -- and, again, we are discussing this in the context of a tape. So, if you ask, in -- in my opinion, the plain and 10:20:50 10:20:56 10:21:00 10:21:08

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

ordinary meaning or understanding of someone of those edges would be -- that are occurring at the beginning of the tape and the end of the tape. So, I might refer to them as the beginning edge and the end edge, or simply the first end and then the second end -- or edge, excuse me. I think you're referring to edges. 10:21:15 10:21:22 10:21:28 10:21:32 10:21:35 10:21:39 10:21:43

Q So, in your opinion, in figure 13C, focusing on the top layer, are any of the edges longitudinal edges? 10:21:44 10:21:49 10:21:54

A Well, I think I've answered that in that I wouldn't -- to avoid confusion, I wouldn't start calling the red end a longitudinal end. If you wanted to -- if we wanted to do so, would it be incorrect? Perhaps not. But as I've already stated, I think of it as first end and the second end of the tape or the beginning end and the second end of the tape. 10:21:58 10:22:01 10:22:06 10:22:12 10:22:20 10:22:24 10:22:27 10:22:29

Q And why would it be confusing to call the red edge a longitudinal edge? 10:22:30 10:22:34

A Well, the -- we've already -- we've determined that the tape runs in a longitudinal 10:22:36 10:22:41

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

direction. That is the long direction of the tape is the longitudinal direction. And we've established that the lateral edges run parallel to the longitudinal direction. 10:22:43 10:22:47 10:22:52 10:22:56

Again, I'm not sure it's incorrect. I just wouldn't go adding longitudinal edges when I think the most strict word understanding would be that there are ends at the beginning and the end of the piece of tape. 10:22:57 10:23:01 10:23:06 10:23:16 10:23:20

Q And I'm just following up. You mentioned it would be confusing, so my question was, why would it be confusing to simply call the red edges longitudinal edges? 10:23:22 10:23:25 10:23:28 10:23:32

A Well, because you have longitudinal direction and lateral -- we already have lateral edges and a longitudinal direction. And it's a piece of tape, so it's a very long strip. It's not a -- it's not square. It's this long piece of tape. 10:23:33 10:23:36 10:23:39 10:23:43 10:23:47 10:23:51

So, common sense dictates, if I'm going to go through the trouble to -- go through the trouble to describe the tape, the tape has a 10:23:52 10:23:56 10:23:58

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

longitudinal direction, which is the long direction, it has lateral edges parallel to the longitudinal direction. It would seem more -- it would seem straightforward to think of the tape as having a beginning end and an end -- excuse me, a first end and a second end and then edges corresponding to those ends. 10:24:01 10:24:04 10:24:08 10:24:14 10:24:18 10:24:21 10:24:25

Q And if you labeled the edges in figure 13C according to which direction they were going, then which edge would be the longitudinal edge? 10:24:29 10:24:43 10:24:48

MR. SULLIVAN: Objection to form. 10:24:53

A I'm sorry, could you repeat the question, please? 10:24:55 10:24:58

Q Yeah. So, I understand you have an opinion about what lateral edge means, okay? 10:24:58 10:25:00

So, I'm asking a different question of -- that is asking you to identify the edges according to the direction of the edges, okay? 10:25:04 10:25:09 10:25:14

So, which edge is going in the longitudinal direction, the red edge or the yellow edge? 10:25:16 10:25:22 10:25:26

A Well, as we've stated, the yellow edge is 10:25:26

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

a lateral edge of the longitudinal tape. And the lateral edge, the yellow edge as you colored it here, runs parallel to the longitudinal direction which the tape runs. 10:25:29 10:25:34 10:25:38 10:25:41

Q And which edge runs in the lateral direction, the red edge or the yellow edge? 10:25:43 10:25:48

MR. SULLIVAN: Objection to form. 10:25:52

A I'm sorry, could you repeat the question, please? 10:25:53 10:25:56

Q Yeah. Which edge runs in the lateral direction, the red edge or the yellow edge? 10:25:56 10:26:00

MR. SULLIVAN: Objection to form. 10:26:04

A The edges -- edges running along the side of the tape parallel to the longitudinal direction are the lateral edges. 10:26:06 10:26:39 10:26:42

Q The red edges run in the lateral direction, correct? 10:26:50 10:26:55

MR. SULLIVAN: Objection to form. 10:27:01

A The -- again, the yellow edges are the lateral edges running along the sides of the tape parallel to the longitudinal direction, and I prefer to think of the red end as being a first 10:27:19 10:27:22 10:27:25 10:27:29

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

end at the end of the tape. 10:27:34

Q So, just factually, which edge runs in the lateral direction? 10:27:39 10:27:43

MR. SULLIVAN: Objection to form. 10:27:47

A Well, consistent with the nomenclature of the lateral edges running along the side of the tape parallel to the longitudinal directions, the edges that I think of and I think a person of skill in the art would understand to be the first end of the second end of the tape, run perpendicular to the longitudinal direction of the tape and that could be considered to be running in a lateral direction, not to be confused with the edges running along the side of the tape parallel to the longitudinal direction, which are the lateral edges. 10:28:01 10:28:05 10:28:08 10:28:10 10:28:14 10:28:16 10:28:19 10:28:24 10:28:28 10:28:31 10:28:34 10:28:37

Q So, your opinion is that the red edges do run in the lateral direction, but they are not the lateral edges of the tape, correct? 10:28:40 10:28:43 10:28:46

A As I've stated, let me clarify it for you again, the edges running along the side of the tape parallel to the longitudinal direction, such 10:28:55 10:28:58 10:29:01

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

as the yellow edge that you have illustrated in figure 13C of Glew, are the lateral edges that the red edge is one of the edges of the tape that I would consider to be a first end of the tape, and that consistent with the description of the lateral edges running parallel to the longitudinal direction, the red end that you have described colored runs perpendicular to the longitudinal direction, which could be considered to be running in the lateral direction. 10:29:04 10:29:08 10:29:15 10:29:20 10:29:24 10:29:26 10:29:32 10:29:42 10:29:44 10:29:48

Q Do you agree that longitude and latitude are understood to be opposite directions? 10:29:54 10:29:59

MR. SULLIVAN: Objection to form. 10:30:06

A Could you repeat the question, please? 10:30:09

Q Yeah. Longitude and latitude are opposite directions? 10:30:12 10:30:17

MR. SULLIVAN: Objection to form. 10:30:20

A If you're referring to the conventions that are used in cartography or navigation, it's generally considered that the longitudinal direction is perpendicular to the latitudinal direction. 10:30:23 10:30:26 10:30:33 10:30:37 10:30:42

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And I just want to be sure I get sort of your final best testimony, in your opinion, is it correct or incorrect to describe the red edge as a longitudinal edge? 10:31:22 10:31:25 10:31:30 10:31:35

MR. SULLIVAN: Objection to form. 10:31:38

A As I've stated, the edges running along the side of the tape parallel to the longitudinal direction, such as the yellow edge that you have labeled in figure 13C of Glew, are considered to be the lateral edges and run parallel to the longitudinal directions. And the edges such as edge -- the red edge, as you've colored in figure 13C, which I used the terminology of the first end of the tape, runs perpendicular to the longitudinal direction, which could be considered to be running in the lateral direction, although for the avoidance of confusion, I would refer to it as a first end. 10:31:44 10:31:48 10:31:51 10:31:54 10:31:59 10:32:04 10:32:10 10:32:13 10:32:18 10:32:22 10:32:25 10:32:29 10:32:34

Q And would you also refer to it as a longitudinal edge, the red? 10:32:36 10:32:38

MR. SULLIVAN: Objection to form, asked and answered. 10:32:42 10:32:44

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A As I've stated, the edges running along the side of tape parallel to the longitudinal direction, such as the yellow edge that you've colored in figure 13C, are considered the lateral edges; whereas the edges such as the edge you have colored in red, which I describe as being at the first end of the tape, runs perpendicular to the longitudinal direction, which can be considered in -- to be the lateral direction, although -- and I would name that edge the first end or the edge at the first end of the tape. 10:32:44 10:32:47 10:32:50 10:32:53 10:32:57 10:33:03 10:33:07 10:33:13 10:33:16 10:33:23 10:33:28

Q That's great. I understand that. I'm just asking would you also name them the longitudinal edges, or would you say that's problematic? 10:33:30 10:33:32 10:33:34 10:33:37

MR. SULLIVAN: Objection to form. 10:33:38

A As I've stated, the edges running along the side of the tape parallel to the longitudinal direction, such as the yellow edge that you have for the edge that you have colored in yellow in figure 13C of Glew, are the lateral edges which are running in parallel to the longitudinal 10:33:40 10:33:43 10:33:45 10:33:49 10:33:52 10:33:56

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

direction; whereas the edge that you've colored in red, which I use the nomenclature as the first edge, is perpendicular to the longitudinal direction and could be understood to be running in the lateral direction. 10:34:01 10:34:05 10:34:10 10:34:14 10:34:17

Q Just as a general matter, would it be factually incorrect to refer to the yellow edge as a longitudinal edge? 10:34:20 10:34:22 10:34:27

MR. SULLIVAN: Objection to form. 10:34:30

A Consistent -- in the context of the -- the geometry that we've established, that is, again, going back to the example of if I'm running down the tape and I have to move sideways, I'm moving laterally. I mean, if you imagine that that piece of tape was actually a football field -- in fact, it looks a little bit like a football field, I'm -- if I'm running down longitudinally, and someone comes at me from the left in this diagram, I'm going to move to the right, and I can only move so far until I fall off that football field, which is the tape. And so, we would think of that as the lateral edge. 10:34:42 10:34:49 10:34:51 10:34:56 10:35:00 10:35:05 10:35:08 10:35:11 10:35:16 10:35:18 10:35:22 10:35:29 10:35:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

I suppose that, by analogy, if I keep running to the end, I get past the goal -- imaginary goal post in this imaginary football field, I guess it would be appropriate to say I've run off the longitudinal edge, although I prefer to think of it as the first end of tape and the second end of the tape. 10:35:33 10:35:36 10:35:42 10:35:45 10:35:48 10:35:51 10:35:54

Q But it would be appropriate to also call the red edge a longitudinal edge, factually? 10:36:01 10:36:05

MR. SULLIVAN: Objection -- 10:36:07

A I think as I've stated -- 10:36:07

MR. SULLIVAN: Objection, form. 10:36:09

A I would -- the edges running along the side of the tape parallel to the longitudinal direction are the lateral edges. And the edges -- I think of them as the first end and the second end, and for the avoidance of confusion would not call them the longitudinal edges, although, by analogy, with the discussion of the lateral edges, they are running in -- perpendicular to the longitudinal direction. 10:36:09 10:36:12 10:36:15 10:36:17 10:36:20 10:36:24 10:36:28 10:36:32 10:36:36

Q So, by analogy, they would be the 10:36:41

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

longitudinal edges? 10:36:43

MR. SULLIVAN: Objection to form, asked 10:36:46

and answered. 10:36:51

A So, the edges running along the side of 10:36:51

the tape parallel to the longitudinal direction 10:36:54

are the lateral edges, such as the one that you 10:36:56

have colored in, in yellow; whereas the edge that 10:36:59

you colored in, in red, which I think of in the 10:37:03

context of the tape, as being a first end of the 10:37:07

tape, with the other edge at the far end of the 10:37:12

tape being the second end of the tape -- the edge 10:37:16

at the second end of the tape, and those edges run 10:37:18

perpendicular to the longitudinal direction of the 10:37:22

tape. 10:37:26

Q So, for a second I want you to just 10:37:28

consider lateral and longitudinal as a general 10:37:32

matter, not limited to the specific context of the 10:37:36

'030 patent, okay? 10:37:40

A Yes. 10:37:41

Q Okay. So, just as a general matter, would 10:37:42

it be accurate or inaccurate to describe the 10:37:47

yellow edge as also being a longitudinal edge? 10:37:52

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Could you repeat the question, please? 10:37:59

Q Yeah. So, just as a general matter, would it be accurate or inaccurate to describe the yellow edge as also being a longitudinal edge? 10:38:03 10:38:04 10:38:06

MR. SULLIVAN: Objection to form. You're asking this outside the context of the '030 patent? 10:38:11 10:38:13 10:38:15

MR. BULLARD: Correct. 10:38:16

A Well, if you're talking about navigation and the globe, you would move along longitudes and latitudes. But this is kind of a flat earth model, if I might put that out there. So, I -- I can't quite understand the question. Do you want to navigate the globe, or do you want to talk about the patent, would be my answer. Which one is it? 10:38:19 10:38:21 10:38:29 10:38:33 10:38:35 10:38:37 10:38:40 10:38:42

Q I want to find out if you are a flat-earther. No, I'm just kidding. 10:38:43 10:38:45

I want to understand -- you understand that you can have an opinion that is specific to the patent, and then you can have an opinion that is general, that's not specific to the patent. 10:38:48 10:38:51 10:38:52 10:38:54

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

It's just about general usage, okay? 10:38:57

A I understand.

Q So, just as a matter of general usage, 10:39:00

would it be incorrect or correct -- or strike 10:39:03

that.

As a matter of general usage, would it be 10:39:06

accurate or inaccurate to refer to an edge running 10:39:09

in the longitudinal direction as also being a 10:39:13

longitudinal edge? 10:39:16

A No, it's -- I don't -- I don't know the 10:39:18

answer to that. This is -- I think the crux of 10:39:22

what you're getting at is if your circumnavigating 10:39:24

the globe, you're on particular longitudes. 10:39:28

There's no edges, because it's -- I'm not a 10:39:31

flat-earther. If I'm -- if I'm flying an aircraft 10:39:34

and I'll told to move to a different longitude, 10:39:38

I'm going to move laterally -- you know, suppose 10:39:42

air traffic tells me to move laterally along the 10:39:45

latitude, and then follow a different longitude, 10:39:48

I'm going to do that. 10:39:51

I'm going to go -- let's say air traffic 10:39:52

says, you know, I want you to go two miles east 10:39:56

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

and then I want you to turn due north. Well, in essence, you would be traveling along a latitude, and then you would go to a different -- and then you would then turn 90 degrees to your left to be on a certain longitudinal line. 10:39:59 10:40:02 10:40:05 10:40:09 10:40:13

But that analogy is inconsistent with this, where we have an actual edge to the tape. 10:40:16 10:40:20

Q Yeah. My question wasn't limited to traveling around the globe, okay? 10:40:26 10:40:29

A Um-hmm. 10:40:33

Q I'm just asking as a general matter, when have you a rectangular shape, is it accurate or inaccurate to describe the edge running in the longitudinal direction as also being a longitudinal edge? 10:40:37 10:40:40 10:40:45 10:40:49 10:40:52

A In the -- in the context -- in the context of this proceeding, the tape -- the tape very clearly has a longitudinal direction, which is the long direction of the tape, and the lateral edge is the edge running alongside the tape parallel to that longitudinal direction. Therefore, it's the lateral edge would be fully inconsistent to then 10:41:26 10:40:59 10:41:04 10:41:06 10:41:10 10:41:14 10:41:17

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

refer to it as a longitudinal edge. It would make no sense whatsoever. 10:41:20 10:41:23

Q And do you understand that, you know, I'm allowed to ask you hypotheticals that aren't limited to the specific facts of this case? 10:41:27 10:41:28 10:41:31

A I -- I acknowledge that and I relish you're asking those questions. 10:41:35 10:41:40

Q Perfect. So, I'm asking you a question that's not about the '030 patent in particular, okay? 10:41:41 10:41:46 10:41:50

A Yes. 10:41:51

Q So, if you just encounter a rectangular shape outside of this case, would it be accurate or inaccurate to describe the edge running in the longitudinal direction as being a longitudinal edge? 10:41:51 10:41:56 10:42:00 10:42:05 10:42:07

MR. SULLIVAN: Objection to form. 10:42:09

A Could you repeat the question, please? 10:42:11

Q Yeah. So, you know, just outside this case in particular, as a general matter, if you encounter a rectangular shape, is it accurate or inaccurate to describe the edge running in the 10:42:14 10:42:17 10:42:20 10:42:24

longitudinal direction as a longitudinal edge? 10:42:28

A If -- if you give me a rectangle -- well, 10:42:32

you're asking me to assume that the rectangle has 10:42:36

a longitudinal direction, which, again, going to 10:42:39

the context of this patent, the longitudinal 10:42:45

direction is the longer. 10:42:48

Q That --

A In which case, then the lateral edge -- 10:42:50

again, the analogy of if -- if -- if we take the 10:42:53

rectangle, and we define the longitudinal 10:42:56

direction as the long direction -- and I'm going 10:42:59

to go back to my -- and I'm not much of a sports 10:43:02

fan, but I like this football analogy. I've got 10:43:05

the ball. I'm running down the rectangle. 10:43:08

Somebody is coming at my left to tackle me. I'm 10:43:11

going to move laterally. And if I fall off this 10:43:15

field -- that I fall off the rectangle, then I've 10:43:18

gone off what can be considered to be the lateral 10:43:20

edge. 10:43:24

Q Okay. So, looking back at figure 13C, and 10:43:24

focusing on the top layer again, how many sides 10:43:29

does that top layer have? 10:43:34

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Could you repeat the question, please? 10:43:42

Q Yes. Looking back at figure 13C, focusing 10:43:44

on the top layer, how many sides does the top 10:43:48

layer have? 10:43:52

A Well, let -- let -- I need -- I feel the 10:43:54

need to be precise. So, I'm going to answer it in 10:43:59

terms of surfaces, and then work with you to 10:44:02

answer your question more directly. But it's got 10:44:06

six surfaces, right? It has got -- it's got two 10:44:11

surfaces -- referring to figure 13C, it's good two 10:44:14

surfaces running, if you will, up and down the 10:44:20

page. It's got two surfaces running parallel to 10:44:22

the top and the bottom of the page. And in 10:44:30

this -- in this illustration, they are exactly 10:44:32

parallel to the top and the bottom. 10:44:35

Q Um-hmm.

A And then it's got the top surface of the 10:44:36

material, and then the bottom surface that we 10:44:39

can't see. So, it has got six surfaces. 10:44:41

Q Okay. And are any of those surfaces not 10:44:44

sides? 10:44:47

A Can you repeat the question, please? 10:44:49

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yeah. Are any of those surfaces not sides? 10:44:58 10:45:01

A Well, I -- I'm not sure I understand. Let me try to answer that. If you wanted me to label sides, which, again, I like -- I prefer surfaces. I mean, I would call them the top surface, the bottom surface. I might say, look, if I'm staring at this diagram, I'm going to say the top surface is the -- the white -- the top of the material where it's got some lines demarking them, it's got a bottom surface I can't see. 10:45:03 10:45:06 10:45:10 10:45:14 10:45:18 10:45:23 10:45:26 10:45:28 10:45:33

And then what I might say is it's got a left edge surface. It's got a right edge surface. And then I would call the -- there's a top edge surface and a bottom edge surface. 10:45:35 10:45:38 10:45:42 10:45:45

So, that's the way I would describe it. 10:45:47

Q Okay. And which of those -- 10:45:49

(Indiscernible crosstalk.)

Q -- surfaces are sides? 10:45:51

A If you would like to call them sides, I -- I would not disagree with that. I would only emphasize, then, for clarity sake, I would call 10:45:54 10:45:57 10:46:01

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

them the top side, with that being the white surface with the line markings on the top. The bottom side, if you want to call it that, I think that's a little -- it's a little unconventional to call it the bottom side, but it's the bottom side. And then I've got the right edge side. I've got the left edge side, and then I've got the bottom edge side and the top edge side. 10:46:04 10:46:08 10:46:11 10:46:14 10:46:18 10:46:20 10:46:26 10:46:30

But, again, I don't know that I would use the terms "sides," in particular, for the top and the bottom. It's a little contradictory to plain meaning. 10:46:32 10:46:34 10:46:37 10:46:42

Q Okay. Would you call the -- the yellow a side? 10:46:43 10:46:46

A For that material, in that structure, I could consider the yellow to be an edge or also a side. 10:46:47 10:46:51 10:46:55

Q And would you consider the red to be a side? 10:46:56 10:46:59

A Well, in the abstract of this -- this structure that we're talking about, then that end could be considered -- it's not a side. It's 10:47:02 10:47:06 10:47:12

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

certainly -- look, it's not a side. If -- when we were talking about the lateral edge, we were talking about moving side to side. 10:47:15 10:47:18 10:47:21

So, in the context of, you know, we have a longitudinal direction and then the football analogy. I'm running down this football field in a longitudinal direction, someone comes at me from the left, I move to the right. And I would consider that to be an edge or a side. 10:47:24 10:47:29 10:47:31 10:47:34 10:47:36 10:47:40

I think it's going to become very confusing if you want to talk about the red piece being a side. But in the abstract, could you call it that? Yes, but it's very confusing, and I wouldn't do so. 10:47:43 10:47:46 10:47:49 10:47:55 10:47:58

Q Which edge, the red edge or the yellow edge, goes from side to side? 10:47:58 10:48:11

MR. SULLIVAN: Objection to form. 10:48:14

A Now you've completely -- now you've -- you've asked me to call -- you kind of suggested that all of the edges could be called sides. And now you're asking me which ones goes from side to side. Is that -- is that correct? Am I -- am 10:48:16 10:48:20 10:48:23 10:48:26 10:48:30

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

I --
Q I'm not testifying to anything. I'm asking about your opinion. So, I'm asking you, in your opinion, which edge, red or yellow, goes from side to side?
A What side are you talking about? You've got sides all over the place, so...
Q Okay. So, again, list for me what you consider to be the sides of the top layer.
A So, then, with reference to the top layer, figure 13C, the edges running along the side of the tape parallel to the longitudinal direction are the lateral edges. That's the side of the tape.
And I refer to the ends of the tape, such as the red and colored there, as I would call that a first end. And then the other end of the tape I would refer to as the second end.
Q I'm -- I'm just running with your opinion. In your opinion, then, which of the edges, red or yellow, goes from side to side?
MR. SULLIVAN: Objection to form.

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A The edges running along the side of the tape parallel to the longitudinal direction are the lateral edges, such that the yellow edge that you indicated is -- could be considered -- is a lateral edge. And if you -- based on your question, I'm going to assign -- the yellow lateral edge, I'm going to assign it -- in the context of this drawing, I will call it the right side. And then the corresponding side that we can't see, which is parallel to the yellow lateral edge, could be considered to be the left side of the tape in this diagram. Then the red marked end, which I would refer as the first end, could be considered to be running, in the context of this diagram, from the left side of the tape to the right side of the tape. 10:50:10 10:50:12 10:50:16 10:50:23 10:50:28 10:50:35 10:50:39 10:50:44 10:50:49 10:50:54 10:51:00 10:51:05 10:51:13 10:51:16 10:51:20 10:51:25

Q And you and I have had an extensive discussion so far today about two different phrases recited in the claims. One is a "continuous conductive material." And the other is "lateral edge." 10:51:28 10:51:38 10:51:42 10:51:45 10:51:49

Correct? 10:51:51

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Yes, we have. 10:51:54

Q And do you recall earlier when I asked you about the concept that a patentee can act as a lexicographer and provide a special definition for a claim term in his specification or in his prosecution history? 10:51:55 10:52:00 10:52:04 10:52:08 10:52:11

A Yes, we did have that discussion. 10:52:13

Q Okay. And my understanding is you're not contending that the patentee in this case acted as a lexicographer and provided a special definition for either the phrase "lateral edge" or the phrase "continuous conductive material." 10:52:16 10:52:22 10:52:28 10:52:32 10:52:37

Is that correct? 10:52:40

A Could you repeat the question, please? 10:52:42

Q Yeah. My understanding is that you are not contending in your declarations that the patentee in this case acted a lexicographer and provided a special definition of either the phrase "lateral edge" or the phrase "continuous conductive material." 10:52:44 10:52:50 10:52:55 10:53:00 10:53:03 10:53:07

Is that correct? 10:53:08

A I believe that you are asking me to opine 10:53:15

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

on claim construction in which I did not do in the context of this proceeding. 10:53:44 10:53:49

Q Well, you applied the claim in this proceeding, correct? 10:53:54 10:54:06

A That is correct, yes. 10:54:08

Q And to apply the claim, you have to have an understanding of what the claim means, correct? 10:54:09 10:54:13

A That is correct. 10:54:18

Q And the meaning of the claim can either be the plain or ordinary meaning, or it can be a special definition that's provided when the patentee acts as a lexicographer. 10:54:19 10:54:23 10:54:27 10:54:29

Do you understand that? 10:54:32

A Could you repeat the question, please? 10:54:34

Q Yeah. And the meaning of the claim can either be the plain and ordinary meaning, for example, or it can be a special definition if the patentee acts as a lexicographer, for example, and gives a special definition in the specification. 10:54:36 10:54:39 10:54:41 10:54:45 10:54:49

Do you understand that? 10:54:52

A Well, I'm not sure I -- I'm not sure it's that simple. It's my understanding that the claim 10:55:06 10:55:08

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

term has a meaning -- necessarily has a meaning that varies between the plain and ordinary meaning, or very specialized meaning given by the patentee in the specification, or by an understanding of the term based on the specification and prosecution history, for example. 10:55:10 10:55:14 10:55:18 10:55:22 10:55:29 10:55:32 10:55:36

Q Okay. So, I just want to focus on the issue of the patentee acting as a lexicographer and providing a special definition in the specification. Okay? 10:55:36 10:55:41 10:55:46 10:55:48

A In the abstract or in the context of this patent? 10:55:52 10:55:54

Q In the context of this patent, okay? 10:55:55

A Thank you, yes. 10:55:56

Q Okay. So, are you offering an opinion that the patentee acted -- acted as a lexicographer and provided a special definition of the term "lateral edge"? 10:55:58 10:56:02 10:56:06 10:56:09

MR. SULLIVAN: Objection to form. 10:56:12

A It is my understanding, it is my opinion that the claimed barrier tape -- in the context 10:56:34 10:56:38

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the '030 patent, that the claimed barrier tape, 110 includes a continuous conductive material, 302, contained between two layers of dielectric material, 300 and 304, where the conductive material extends to each lateral edge, 306A, 306B, of the two layers of the dielectric material. 10:56:40 10:56:43 10:56:46 10:56:51 10:56:54 10:57:00

Q Do you understand that there are patent judges in this case who will assess your testimony and your opinions? 10:57:35 10:57:40 10:57:44

A Yes, I do. 10:57:45

Q And do you understand that the patent judges may want to understand, well, what claim construction did he apply? 10:57:46 10:57:49 10:57:53

MR. SULLIVAN: Objection to form. 10:57:59

A Could you repeat the question, please? 10:58:04

Q Yeah. Do you understand that the judges may want to know, well, what claim construction did this witness apply in assessing the prior art for this proceeding? 10:58:06 10:58:09 10:58:13 10:58:19

MR. SULLIVAN: Objection, form. 10:58:25

A Yes, I do understand that. 10:58:26

Q Okay. And do you understand that part of 10:58:27

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

this is, well, did the witness have the opinion that there was a special definition that governed this claim term, and he applied the special definition because he believed that the patentee acted as a lexicographer? 10:58:31 10:58:34 10:58:39 10:58:41 10:58:45

A Yes, I do. 10:58:52

Q Okay. So, is it your opinion that the patentee acted as his own lexicographer and provided a special definition for any of the claim terms at issue in this proceeding? 10:58:52 10:58:54 10:58:58 10:59:02

MR. SULLIVAN: Objection to form. 10:59:06

A Which -- which claim term are you referring to? 10:59:07 10:59:09

Q Any. I'm just trying to determine, are you opining in your declarations that there is a special definition where the patentee acted as a lexicographer for any claim term? 10:59:11 10:59:14 10:59:16 10:59:21

And if there is, can you identify where you state that in your declaration? 10:59:22 10:59:24

A Well, again, I did not perform a claim construction and construed the terms using the plain and ordinary meaning in the context of the 10:59:42 10:59:44 10:59:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

specification, prosecution history and my technical knowledge. 10:59:54 10:59:58

Q Okay. That's helpful. I appreciate that. And so, when you said "I did not perform a claim construction," you didn't reach an opinion that there was a special definition, such as lexicography, for any of the claim terms, correct? 11:00:02 11:00:06 11:00:10 11:00:12 11:00:16

A Could you repeat the question, please? 11:00:23

Q Yeah. When you said, quote, "I did not perform a claim construction," part of that is you did not reach an opinion that there was a special definition such as lexicography for any of the claim terms, correct? 11:00:24 11:00:32 11:00:33 11:00:37 11:00:40

A It is my opinion and I performed my work on the basis that the claim terms were understandable in the context of the plain and ordinary meaning, taking into account the context of the specification, prosecution history, and my knowledge as at least a person of skill in the art. 11:00:42 11:00:45 11:00:49 11:00:53 11:00:57 11:01:02 11:01:05

Q And when you took into account those things, you did not identify a special definition 11:01:06 11:01:07

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

where the patentee acted as a lexicographer, correct? 11:01:11 11:01:13

A I took into account the fact that the plain and ordinary meaning in the context of the specification takes into -- utilizes the description provided by the applicant, which may include their use of particular words or phrases in the context of the specification, which gives them further meaning. 11:01:17 11:01:36 11:01:40 11:01:44 11:01:48 11:01:56 11:02:00

Q And so, just yes or no, when you took into account those things, did you locate a special definition? 11:02:02 11:02:10 11:02:13

A Is there a word you're concerned about in particular in the claim language? 11:02:15 11:02:18

Q Either lateral edge or continuous conductive material. 11:02:21 11:02:23

A Great, thank you. Which one -- can you go ahead and ask the question, please? 11:02:26 11:02:30

Q Yeah. When you took into account those things that you listed earlier, did you identify a special definition of the claim term "lateral edge"? 11:02:31 11:02:34 11:02:37 11:02:40

A Could you repeat the question once more, please? I wanted to check something in the specification which I have done. 11:03:19 11:03:22 11:03:23

Q When you took into account those things you listed earlier, the specification, prosecution history, your knowledge, did you identify a special definition of the claim term "lateral edge"? 11:03:24 11:03:27 11:03:30 11:03:32 11:03:34

A The definition of the lateral edge that I obtained and utilized was based on the specification. And, for example, at the top of figure 4A, where the specification indicates that the figure refers to a longitudinal tape, consistent with figures 4B, illustrating test results for an also labeled longitudinal tape, it is my understanding as -- and consistent with the understanding of person of ordinary skill in the art -- ordinary skill in the art at the time would have, that the longitudinal direction of the tape is the long direction of the tape. And consistent with that, moving towards the edge of the tape is moving in the lateral direction, and that the 11:03:39 11:03:45 11:03:48 11:03:54 11:03:59 11:04:07 11:04:12 11:04:20 11:04:26 11:04:30 11:04:31 11:04:36 11:04:42 11:04:46

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

lateral edge, based on that disclosure in the specification corresponds to edges 306A and 306B of figure 3C. 11:04:50 11:04:56 11:05:07

Q And the specification doesn't label those edges as lateral edges, correct? 11:05:19 11:05:22

A I believe that is correct, yes. 11:05:27

Q And you just relied, though, on your understanding of the plain and ordinary meaning as opposed to a different construction in the specification, correct? 11:05:29 11:05:33 11:05:35 11:05:37

A That is not correct. 11:05:39

Q Do you understand that one of the things that's going to happen in this proceeding is I'm going to show the transcript to the PTAB judge, and they are going to want to understand, well, did Belden's expert do this correct or not? Did he apply a special construction, or did he apply the plain and ordinary meaning? 11:05:47 11:05:49 11:05:52 11:05:56 11:05:59 11:06:02 11:06:05

And they are going to want to know the answer. And that's what these questions have been directed to. 11:06:06 11:06:08 11:06:11

So, what is the answer? 11:06:12

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 11:06:16

A One second, please. I'm looking through 11:06:28

the specification. 11:06:32

Could you repeat the question, please? 11:06:54

I've located the material I need from the 11:06:57

specification to answer your question. 11:07:00

Q Maybe this will help. Do you understand 11:07:02

that there is two different situations? One is 11:07:06

the specification has a teaching that is 11:07:08

consistent with the plain and ordinary meaning, 11:07:10

and another situation is where the specification 11:07:12

has a teaching that's actually different than the 11:07:14

plain and ordinary meaning. It's, in fact, a 11:07:17

special definition, and then that special 11:07:20

definition controls. 11:07:22

Do you understand that? 11:07:23

A Yes, I do. 11:07:25

Q Okay. So, are you saying that the 11:07:26

teachings in the specification you cited to are 11:07:30

consistent with the plain and ordinary meaning and 11:07:32

you're relying on the plain and ordinary meaning? 11:07:34

Or are you say that the teachings in the 11:07:37

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

specification are different than the plain and ordinary meaning, and they, in fact, represent a special definition and you're relying upon that special definition? 11:07:42 11:07:44 11:07:45 11:07:47

A I have relied on the plain and ordinary meaning in the context of the specification -- specification, prosecution history, and my knowledge -- technical knowledge and expertise as a person of skill in the art at the time. 11:08:09 11:08:13 11:08:18 11:08:23 11:08:27

Q And you didn't identify anything in the specification or the prosecution that's inconsistent with the plain and ordinary meaning and demands a special construction, correct? 11:08:30 11:08:32 11:08:34 11:08:36

A Could you repeat the question, please? 11:08:42

Q Yeah. And you didn't identify anything in the specification or the prosecution history that's inconsistent or different from the plain and ordinary meaning and demands a special construction, correct? 11:08:44 11:08:47 11:08:49 11:08:53 11:08:55

A Well, the specification -- in the context of the lateral edges, the specification teaches in several places -- for example, the specification 11:08:58 11:09:04 11:09:10

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

in the summary in column 2, at line 43, talks about longitudinal tape application. And as I've discussed -- excuse me, and also in column 10, in line 3, talks about cable with a longitudinal barrier tape. 11:09:15 11:09:25 11:09:29 11:09:40 11:09:44

It goes on to discuss in line 5 of column 10, beginning in line 5, column 10, edges of longitudinal barrier tape do not rotate around the cable. 11:09:49 11:09:56 11:10:01 11:10:06

Q Any of that represents -- 11:10:13

(Indiscernible crosstalk.) 11:10:15

A Based on the discussion of longitudinal, and as a person of ordinary skill in the art, at the time would understand, the longitudinal direction of the tape is the long direction, parallel to the direction of the cable. And that moving towards the side or moving laterally along the tape in a direction perpendicular to the lateral -- the longitudinal direction, one would arrive at the lateral edge of the tape. And based on that analysis, it is my opinion that the lateral edges are the edges of the tape that run 11:10:18 11:10:22 11:10:26 11:10:29 11:10:33 11:10:46 11:10:51 11:10:55 11:10:58 11:11:05 11:11:11

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

parallel to the longitudinal direction of the tape, which is the long direction of the cable. 11:11:22 11:11:26

MR. BULLARD: All right. Move to strike. Nonresponsive witness. 11:11:33 11:11:35

Q My question to you, so please answer my question, was, you didn't identify anything in the specification or the prosecution history that was inconsistent or different from the plain and ordinary meaning and demands a special construction, correct? That's yes-or-no question. 11:11:36 11:11:41 11:11:44 11:11:48 11:11:50 11:11:53

MR. SULLIVAN: Objection to form. He did answer your question. 11:11:56 11:11:58

A I identified the sections of the specification that I have read to you. And I'm glad to repeat, that, in my opinion, illustrated how the term "lateral edge" in, for example, claim 1, was utilized, and what it corresponds to with respect to the barrier tape. 11:12:05 11:12:07 11:12:14 11:12:24 11:12:29 11:12:35

Q And are you contending that any of those things you read are inconsistent with or different from the plain and ordinary meaning? 11:12:37 11:12:39 11:12:44

A To my knowledge and in my opinion, nothing 11:12:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

that I read with respect to the specification and the application of my technical knowledge as one of at least a person of -- as a person of -- at least person of ordinary art -- skill in the art at the time is inconsistent with the plain and ordinary meaning of any of the terms in the claim. 11:12:54 11:12:58 11:13:02 11:13:06 11:13:09 11:13:13

Q And that means you didn't locate any special definition in the specification, for any of the claim terms, that was different from the plain and ordinary meaning? 11:13:21 11:13:23 11:13:25 11:13:27

MR. SULLIVAN: Objection to form, asked and answered. 11:13:29 11:13:36

A Could you repeat the question, please? 11:13:36

Q Yeah. And that means you didn't locate any special definition in the specification for any of the claim terms that was different than the plain and ordinary meaning? 11:13:39 11:13:41 11:13:43 11:13:46

MR. SULLIVAN: Objection to form. 11:13:49

A Again, I used the specification and my knowledge as -- of at least a person of ordinary skill in the art at the time to understand the words of the claim, including words of the claim, 11:13:51 11:13:58 11:14:02 11:14:04

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

including the term "lateral edge," which I did not find to be inconsistent with the plain and ordinary meaning and for which was given support from the specification. 11:14:07 11:14:12 11:14:15 11:14:20

Q And that would be true for continuous conductive material, too, correct? 11:14:22 11:14:24

A Yes, that's correct. 11:14:31

Q So for neither of those terms did you locate a special construction that differed from the plain and ordinary meaning, correct? 11:14:32 11:14:36 11:14:40

A Well, I used the meanings for terms such as "conductive" -- "continuous conductive material" were supported by the specification and not in contradiction to any plain and ordinary meaning of any of those individual words. And that when you used in the combined term, for example, "continuous conductive material," there was -- the support from the specification was consistent with not only the plain and ordinary meaning of the terms but the use of those terms as would be understand by a person of ordinary skill in the art at the time. 11:14:52 11:15:01 11:15:04 11:15:10 11:15:12 11:15:17 11:15:22 11:15:32 11:15:34 11:15:38 11:15:44 11:15:46

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q You don't believe any of your opinions require a special construction, correct? 11:15:52 11:15:55

A Could you repeat your question, please? 11:16:25

Q You don't believe that any of your opinions required a special construction in the specification that differed from the plain and ordinary meaning, correct? 11:16:28 11:16:31 11:16:38 11:16:43

A I formed my opinion based on the plain and ordinary meaning of the individual words, which when used together to form phrases, I had no problem understanding in the context of the specification and prosecution history, given my technical knowledge as at least a person of ordinary skill in the art at the time. 11:16:46 11:16:51 11:16:54 11:17:00 11:17:02 11:17:07 11:17:10

Q Okay. 11:17:12

MR. BULLARD: Denis, do you want to take a break, or do you want to keep going? 11:17:15 11:17:17

MR. SULLIVAN: I think it's a good time to take a break, because it's -- we're getting hungry on the east coast. 11:17:20 11:17:23 11:17:26

MR. BULLARD: Okay. That's fine. Let's go off the record. 11:17:27 11:17:28

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

THE VIDEOGRAPHER: Okay. We are going off the record. The time is 11:18 a.m. 11:17:31 11:17:32

(Luncheon recess.) 11:17:36

THE VIDEOGRAPHER: We are back on the record. The time is 12:21 p.m. 12:21:02 12:21:04

BY MR. BULLARD: 12:21:07

Q Welcome back, Doctor. Just to give you kind of a roadmap, I'm going to switch to the Roberts' reference now and ask you some questions about that. 12:21:08 12:21:11 12:21:24 12:21:16

You'll recall the Roberts' reference, correct? 12:21:17 12:21:19

A Yes, I do. 12:21:19

Q Okay. And let's start with paragraph 77 of your first declaration. This is page 24. If you'll let me know when you're there -- 12:21:20 12:21:25 12:21:30

A I'm just downloading Roberts. 12:21:32

Q And you saw that I put Exhibit 1009, the Roberts' reference in the chat. 12:21:44 12:21:47

A Yes, and I downloaded it. I have it open. 12:21:50

(Marked for identification Exhibit 1009, 13,622,683, Roberts' reference.) 12:21:54 12:21:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

(Indiscernible crosstalk.) 12:21:56

Q -- is going to be about -- starting with 12:21:56

paragraph 77, but if you need to consult Roberts, 12:22:00

you know, feel free to do that, as well, okay? 12:22:04

A Yes. 12:22:06

Q And have you made it to paragraph 77? 12:22:07

A Yes, I have. 12:22:16

Q Okay. And so, I want to ask you some 12:22:17

questions about shield 18, okay? 12:22:19

A Yes. 12:22:21

Q What is shield 18 made of? 12:22:22

A It is made of metal. 12:22:30

Q Metal is conductive, correct? 12:22:33

A I believe you'd be hard pressed to find a 12:22:38

metal that wasn't conductive under most 12:22:44

circumstances. 12:22:48

Q And I know you, you know, have some issues 12:22:49

with the Roberts' reference, but you don't dispute 12:23:00

in your declaration that the metal in armor 18 is 12:23:03

continuous conductive material, correct? 12:23:12

MR. SULLIVAN: Objection to form. 12:23:19

A Roberts does not disclose that the metal 12:23:26

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

armor shield includes the claim conductive material contained between two layers of dielectric material, where the conductive material extends to -- 12:23:29 12:23:32 12:23:41

(The court reporter asked for clarification.) 12:23:41

A Roberts -- Counsel, could you ask the question, again, please? 12:23:44 12:24:05

Q Sure. Let's just back up, okay? 12:24:07

So, shield 18 is a piece of metal, right? 12:24:09

A It is metal armor, so it contains metal. 12:24:16

Q And the metal is conductive material, correct? 12:24:20 12:24:26

A As I stated, under most circumstances, one could expect that the metal would be a -- would be conductive, would conduct electricity. 12:24:27 12:24:31 12:24:35

Q And so, the metal armor 18 is comprised of continuous conductive material, which is the metal, correct? 12:24:38 12:24:55 12:24:59

(Witness reviewing document.) 12:25:40

A Could you repeat the question, please? 12:27:12

Q Yes. Metal armor 18 is comprised of continuous conductive material, which is the 12:27:15 12:27:20

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

metal, correct? 12:27:23

A I don't believe that Roberts discloses it as continuous. And certainly, if Roberts does not disclose that the metal armor shield 18 includes the claimed conductive material contained between two layers of a dielectric material where the conductive material extends to each lateral edge of the two layers of the dielectric material. 12:27:25 12:27:30 12:27:36 12:27:39 12:27:41 12:27:43 12:27:46

Q The metal armor 18, the whole thing is a piece of metal, right? 12:27:48 12:27:59

A I'm sorry, what do you mean by "the whole thing"? 12:28:01 12:28:04

Q As shown in the figures that you include in paragraph 77 and as described as metal armor shield, metal armor tape, a person of ordinary skill in the art would understand that that metal armor 18 is -- the whole thing is a piece of metal? 12:28:06 12:28:11 12:28:19 12:28:22 12:28:27 12:28:31

A Well, I think that would be consistent with Roberts' metal shield 18 is described in Roberts as metal armor shield, metal armor tape, armor. 12:28:34 12:28:38 12:28:42 12:28:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Right. So, you would understand reading Roberts that armor 18, the metal -- or strike that. 12:28:49 12:28:52

You would understand reading Roberts, that armor 18, the whole thing is a piece of metal? 12:28:57 12:29:03

A Well, one would understand -- I understand from reading Roberts that the metal armor shield/tape 18 provides mechanical armor protection to the cable and is a metal shield, which as described in Roberts -- is described in Robert as metal armor shield, metal armor tape, or armor. 12:29:09 12:29:10 12:29:14 12:29:18 12:29:22 12:29:26 12:29:30

Q So, the armor 18 is a piece of metal, right? 12:29:30 12:29:42

A It is, according to Roberts, a metal armor or metal shield. 12:29:58 12:30:04

Q You would understand that the metal in armor 18 is basically a metal -- or strike that. 12:30:19 12:30:24

You would understand that armor 18 is basically a continuous tube of metal that is wrapped around the cable, correct? 12:30:35 12:30:38 12:30:43

A Could you repeat the question, please? 12:30:56

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Sure. Armor 18 is basically a continuous tube of metal that's wrapped around the cable, correct? 12:30:58 12:31:02 12:31:04

A Based on the description of Roberts, the metal shield 18 is a metal armor shield, metal armor tape, or armor, that provides mechanical or armor protection to the cable. 12:31:34 12:31:38 12:31:45 12:31:49

Q And it's in the shape of a tube that's wrapped around the cable, correct? 12:32:01 12:32:03

A Could you repeat the question, please? 12:32:20

Q And it's in the shape of a tube that's wrapped around the cable, correct? 12:32:23 12:32:25

A Well, it is in a shape such that it provides mechanical armor protection to the cable. 12:32:28 12:32:32

Q Okay. Use your own word, how would you describe the shape of the armor 18? 12:32:41 12:32:45

A I would describe it as longitudinally circumscribing the tape as a corrugated metal armor tape. 12:33:21 12:33:27 12:33:32

Q And you're not contending that there are any discontinuities in the metal of the armor tape 18, correct? 12:33:35 12:33:38 12:33:43

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Could you repeat the question, please? 12:33:45

Q Yeah. You're not contending there are any discontinuities in the metal of the armor tape 18, correct? 12:33:48 12:33:51 12:33:55

A It's my belief that Roberts is silent as to the continuity of the metal armor shield, which is designed to provide mechanical protection to the cable. 12:34:05 12:34:09 12:34:14 12:34:17

Q Well, look at the figure above your paragraph 77. Do you see that figure? 12:34:23 12:34:26

A Yes, I do. 12:34:34

Q And you see the purple there correctly identifies the armor 18, correct? 12:34:35 12:34:37

A Yes, I do. 12:34:39

Q And that wraps all the way around the cable with no discontinuity as shown in that figure, correct? 12:34:40 12:34:43 12:34:47

A That is a cross-section of the cable, including the metal shield 18. And to answer your question, in that cross-section, there are no discontinuities observable if one understands the cross-hatching, and in this case, cross-hatching 12:34:48 12:35:11 12:35:22 12:35:29 12:35:32

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

with the purple annotation to be representative of the metal. 12:35:35 12:35:39

Q And that's what you would understand reading it, correct? 12:35:39 12:35:43

A I would understand that there are no discontinuities in the direction shown in -- of the shield as illustrated in the cross-section. So, that's in one dimension. There are no discontinuities shown. 12:35:45 12:35:47 12:35:57 12:35:59 12:36:02

Q Now, if you look down at figures 1, 2 and 3, you see another dimension, correct? 12:36:06 12:36:09

A Sorry, what figures are you referring to? 12:36:11

Q If you go to page 25 of your declaration, you see figures 1, 2, and 3? 12:36:14 12:36:18

A Yes. 12:36:20

Q And that's shows you another dimension, correct? 12:36:21 12:36:24

A You are able to -- yes, it's an angled view. 12:36:24 12:36:31

Q Okay. And you don't see any discontinuities in the metal armor in that dimension either, correct? 12:36:31 12:36:32 12:36:36

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A The metal armor illustrated as metal armor shield 18 providing mechanical protection, I see the corrugations -- I mean, there is a discontinuity because it's cut off up at the top, so it is discontinuous. 12:36:38 12:36:42 12:36:47 12:36:50 12:36:54

Q I don't -- I don't understand what you're saying when you say it's cut off at the top. 12:37:03 12:37:05

A Well, if you look at figure 1, 2, and 3, the metal armor terminates before the rest of the cable, and the rest of the cable extends beyond the metal armor. 12:37:10 12:37:13 12:37:16 12:37:20

Q Let's back up here. So, you know, you're -- you're purporting to be an expert in this case, right? 12:37:21 12:37:37 12:37:41

A Yes. 12:37:41

Q Okay. So, you should have some understanding and experience about how cables are constructed and what components they are made of and what those components look like, correct? 12:37:41 12:37:44 12:37:46 12:37:49

A Yes. 12:37:51

Q Okay. So, a person of ordinary skill in the art would understand that the metal armor, 12:37:52 12:37:56

when it's removed from the cable, is just a sheet of metal, right, that's going to be wrapped around the cable? 12:38:01 12:38:04 12:38:10

A As described by Roberts, it is a corrugated metal armor. And based on both the discussion and the figures, it's a metal shield around the cable which acts as a metal armor shield, metal armor tape, or armor, and provides mechanical armor protection to the cable. 12:38:39 12:38:43 12:38:48 12:38:54 12:38:57 12:39:03

Q And have you ever seen armor like this in the real world? 12:39:04 12:39:09

A Yes, I have. 12:39:10

Q Okay. And what did it look like, the armor you saw in the real world? 12:39:11 12:39:15

A It's typically a corrugated metal that circumscribes the cable to provide mechanical or armor protection to the cable. 12:39:24 12:39:32 12:39:35

Q And the metal you saw in the real world was a continuous piece of metal, right, without any discontinuities in it? 12:39:36 12:39:39 12:39:42

A I mean, I -- I'm not sure I've seen these cables before. I've seen cables with metal armor 12:39:45 12:39:49

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

before. I'm not -- I can't generalize to every cable I've seen. 12:39:53 12:39:56

Q Okay. Let's focus on your opinion in your declarations, okay? 12:40:00 12:40:04

A Yes. 12:40:06

Q And I'm asking about just the portion of the claim language that recites continuous conductive material, okay? 12:40:07 12:40:12 12:40:17

A Yes, go ahead. 12:40:20

Q Okay. I'm not asking about the position of the conductive material relative to the dielectric layers, okay? Do you understand that? 12:40:36 12:40:40 12:40:44

A I'm not sure what you're -- I understood your -- I understood statement. 12:40:57 12:40:59

Q Okay. 12:41:00

A I understood your statement. I'm not sure you've asked the question yet, but I understood the statement. 12:41:01 12:41:03 12:41:05

Q Okay. So, my understanding, looking at your declarations, is that you do not offer an opinion ever that armor 18 does not comprise continuous conductive material. If that's -- 12:41:05 12:41:09 12:41:12 12:41:17

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

(Indiscernible crosstalk.) 12:41:22

Q If that's incorrect, please identify for me the specific paragraph in your declaration where you offer the opinion that the metal in armor 18 is not continuous conductive material. 12:41:24 12:41:26 12:41:30 12:41:34

A The opinion that I provided in my declaration is accurate in that Roberts does not disclose that the metal armor shield 18 includes the claimed conductive material contained between two layers of the dielectric material, or the conductive material extends to each lateral edge of the two layers of the dielectric material. 12:42:32 12:42:37 12:42:40 12:42:44 12:42:47 12:42:50 12:42:54

Q Can you identify what paragraph you're reading from? 12:42:56 12:42:59

A That would be paragraph 78 of my first declaration. 12:42:59 12:43:03

Q Okay, great. And you would agree that you don't identify an opinion there that the metal in the armor shield 18 is not comprised of continuous conductive material, correct? 12:43:03 12:43:05 12:43:14 12:43:19

A I maintain that my opinion, and my opinion has not changed, is that Roberts does not disclose 12:43:24 12:43:26

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

that the metal armor shield 18 includes the claimed conductive material contained between two layers of the dielectric material, where the conductive material extends to the lateral edge of the two layers of the dielectric material. 12:43:29 12:43:33 12:43:35 12:43:37 12:43:40

Q That's fine. The sentence you read never once mentions the word "continuous," correct? 12:43:42 12:43:45

A It states that Roberts does not disclose that the metal armor shield 18 includes the claimed conductive material contained between the two layers of the dielectric material, where the conductive material extends to each lateral edge of the two layers of the dielectric material. 12:43:49 12:43:52 12:43:56 12:43:57 12:43:59 12:44:03

Q Super basic question, just yes or no, does the word "continuous" ever appear in this paragraph? 12:44:05 12:44:12 12:44:14

A Well, as I've stated, and my opinion is that Roberts does not disclose that the metal armor shield includes the claimed conductive material contained between the two layers of the dielectric material, where the conductive material -- each lateral edge of the two layers of 12:44:15 12:44:17 12:44:19 12:44:20 12:44:22 12:44:28

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the dielectric material. 12:44:30

Q So, yes or no, in your declaration, did you offer an opinion that the metal in armor 18 is not continuous conductive material? 12:44:31 12:44:55 12:45:03

A The opinion I offered is that Roberts does not disclose that the metal armor shield 18 includes the claimed conductive material contained between two layers of the dielectric material, where the conductive material extends to each lateral edge of the two layers of the dielectric material. 12:45:09 12:45:12 12:45:14 12:45:17 12:45:19 12:45:22 12:45:25

Q And you didn't offer an opinion that the armor 18 is missing something other than what you state in paragraph 78, correct? 12:45:26 12:45:30 12:45:32

A Could you repeat the question, please? 12:45:39

Q You didn't offer an opinion that armor 18 fails to disclose some other part of the barrier tape element that's not listed in paragraph 78, correct? 12:45:41 12:45:44 12:45:48 12:45:51

A Well, as I stated -- I won't read it again, but I stated that Roberts does not disclose the metal arm shield includes the claimed 12:45:55 12:46:00 12:46:03

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

conductive material. 12:46:07

(The court reporter asked for clarification.) 12:46:07

A Sorry. I did state, in my opinion, that 12:46:13

Roberts does not disclose that the metal armor 12:46:15

shield 18 includes the claimed conductive material 12:46:18

contained between two layers of the dielectric 12:46:23

material, where the conductive material extends to 12:46:26

each lateral edge of the two layers of the 12:46:28

dielectric material. 12:46:31

Q If you believe that you ever in your 12:46:32

declaration identified a discontinuity in the 12:46:38

metal of armor 18, please identify that paragraph 12:46:42

for me. 12:46:46

(Witness reviewing document.) 12:48:35

A Repeat the question, please. 12:49:00

Q If you believe you ever in your 12:49:03

declarations identified a discontinuity in the 12:49:05

metal of armor 18, please identify that paragraph 12:49:08

for me. 12:49:13

A What I identified in the Roberts patent is 12:49:25

described in paragraphs 78 -- is described in at 12:49:31

least paragraphs 78 and 79 of my first 12:49:35

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

declaration, where I discuss that Robert does not disclose that the metal armor shield 18 includes the claimed conductive material contained between two layers of a dielectric material, where the conductive material extends to each lateral edge of the two layers of the dielectric material. 12:49:39 12:49:45 12:49:47 12:49:50 12:49:53 12:49:56

And also, I subsequently described in paragraph 79, that Roberts metal armor shield 18, which provides mechanical protection to the cable is not a metal core like shield 15, and that Roberts teaches that metal armor shield 18, which provides a mechanical shield, is different than any of the other shields disclosed in Roberts, including metal foil shield 15, which provides an electrical shield and does not provide mechanical armor protection. 12:49:58 12:50:02 12:50:07 12:50:11 12:50:15 12:50:18 12:50:21 12:50:24 12:50:28 12:50:31

Q Would you please answer my question? 12:50:34

MR. BULLARD: Move to strike as nonresponsive. 12:50:37 12:50:38

A Could you ask the question again, please? 12:50:42

Q If you believe in your declarations you ever identify any specific discontinuity in the 12:50:45 12:50:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

metal of armor 18, please identify that paragraph for me. 12:50:53 12:50:57

A I've identified the paragraphs, and I'd be glad to read them to you again, that indicate that metal armor shield is -- 18 is providing a mechanical shield, which is different than any of the shields disclosed in Roberts, and that the mechanical nature of the shield is what is critical, not the electrical properties and continuity. 12:50:58 12:51:02 12:51:05 12:51:08 12:51:21 12:51:16 12:51:19 12:51:25

Q Did you identify some specific discontinuity in the metal of shield 18 in either of those paragraphs? 12:51:37 12:51:40 12:51:46

A I indicated that Roberts teaches that metal armor shield 18, which provides a mechanical shield, is different than any of the other shields disclosed in Roberts, including metal foil shield, which provides an electrical shield and does not provide mechanical armor protection; and as such, a person of ordinary skill in the art at the time would understand that it is the mechanical properties of armor shield 18 which are disclosed 12:51:50 12:51:53 12:51:56 12:51:59 12:52:02 12:52:05 12:52:09 12:52:11 12:52:15

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

in Roberts. 12:52:21

Q All right. 12:52:24

MR. BULLARD: Move to strike again as 12:52:32
nonresponsive. 12:52:28

Q Did you talk to your counsel on any breaks 12:53:02
today? 12:53:05

A We -- yeah, we talked. We went and picked 12:53:06
up our lunch. 12:53:09

Q Did you talk about anything related to the 12:53:11
deposition? 12:53:13

A No. I mean, Mr. Sullivan asked me how my 12:53:15
energy was, and I said I was holding up okay. 12:53:19

Q And so, I just want to be sure your 12:53:22
testimony today is that you didn't talk about 12:53:25
anything related to the deposition? 12:53:27

A We did not. 12:53:30

Q Okay. And let's talk about continuous 12:53:31
some more, okay? You didn't -- 12:53:42

MR. SULLIVAN: (Indiscernible.) 12:53:42

MR. BULLARD: What did you say?

MR. SULLIVAN: I'd be glad to. 12:53:50

Q You understand that this is not a joke? I 12:53:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

see you smiling over there, correct? 12:53:56

A I mean, I am sorry, it's certainly not a joke. 12:53:57 12:54:01

Q Okay. Because I want to be sure that you are taking it seriously, that you understand that you have a legal obligation to answer my questions. Do you understand that? 12:54:01 12:54:04 12:54:07 12:54:09

MR. SULLIVAN: Objection. I think Dr. Eldering is -- he knows the rules and he doesn't need to be lectured by you today, but -- so get on with your questions. 12:54:12 12:54:15 12:54:17 12:54:20

MR. BULLARD: That's great. Can I get a confirmation from the witness under oath? 12:54:23 12:54:25

A Yes, I understand. 12:54:27

Q Okay. And you understand that your obligation includes the whole truth and nothing but the truth? 12:54:28 12:54:30 12:54:33

A Yes, I do. 12:54:35

Q Okay. And you understand that you're being videotaped here specifically to assess your credibility? 12:54:36 12:54:38 12:54:41

A Yes, I understand that. 12:54:42

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Okay, good.
All right. So, let's talk about physically continuous, okay?
You didn't offer any opinion that the metal in armor 18 is not physically continuous, correct?
A I believe that my comments are -- regarding metal armor shield are contained in at least paragraph 78 and 79, where I addressed what Roberts did disclose and did not disclose.
Q And did you offer an opinion there that the conductive material in the metal armor is not physically continuous?
A I offered the opinion that Roberts teaches metal armor shield 18, which provides mechanical protection cable, is not a metal foil like shield 15, and that Roberts teaches that the metal armor shield 18, which provides a mechanical shield is different than any of the other shields disclosed in Roberts, including metal foil shield 15, which provides an electrical shield and does not provide mechanical armor protection.

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Are you able to answer my question about whether or not you offered an opinion about the physical shape of the metal and whether or not there are any discontinuities in physical shape of the metal? 12:56:28 12:56:42 12:56:45 12:56:50 12:56:54

A I don't understand your question. Which -- which physical shape are you referring to? It's a -- it's a metal armor shield surrounding the cable. 12:56:56 12:56:57 12:57:01 12:57:06

Q Yeah. What's the -- what's the shape of the armor 18? 12:57:10 12:57:14

(Witness reviewing document.) 12:57:27

A It is, as per Roberts, a tape-like strip that has been longitudinally folded or wrapped around the plastic tape 17, meaning that it surrounds the cable. So, it has a shape that's consistent with that of the cable. 12:57:47 12:57:59 12:58:02 12:58:08 12:58:13

Q And you didn't offer any opinion that there is a physical discontinuity in the shape of that tape-like strip that is the armor 18, correct? 12:58:28 12:58:30 12:58:40 12:58:44

A It's unclear to me what you mean by "a 12:58:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

discontinuity." It is a tape, so it has sides, as I believe is disclosed in my report on page 24, in the figure above paragraph 77. 12:58:52 12:59:05 12:59:09

Q You would understand that armor 18 is a continuous strip of metal, right? 12:59:19 12:59:28

A It is a metal armor shield which provides mechanical protection to the cable. 12:59:48 12:59:51

Q Are you able to answer my question? 12:59:57

A Could you repeat your question, please? 13:00:00

Q You would understand that armor 18 is a continuous strip of metal, right? 13:00:03 13:00:06

A Well, it's my understanding based on Roberts that it is a metal armor having a thickness greater than a foil, is a tape-like strip that has been longitudinally folded or wrapped around the plastic tape 17. 13:00:13 13:00:15 13:00:20 13:00:25 13:00:25

Q Roberts doesn't teach that there are any discontinuities in the metal tape itself, correct? 13:00:29 13:00:43

A Roberts teaches that the armor shield provides mechanical protection and does not disclose that the metal armor shield 18 includes the claimed conductive material contained between 13:01:18 13:01:22 13:01:26 13:01:29

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

two layers of a dielectric material, where the conductive material extends to each lateral edge of the two layers of the dielectric material. 13:01:32 13:01:35 13:01:38

Q Is there some paragraph or -- strike that. 13:01:41

Are you able -- are you testifying that there is a paragraph in Roberts that teaches there is a discontinuity in the metal tape of armor 18? 13:01:51 13:01:54 13:01:58

A What Roberts teaches is that metal armor tape 18 is a metal armor having a thickness greater than a foil, is a tape-like strip that has been longitudinally folded or wrapped around plastic tape 17. That is an example of the teaching of Roberts with respect to the metal armor tape, and that it is used for the mechanical -- as a mechanical shield. 13:02:16 13:02:21 13:02:26 13:02:31 13:02:33 13:02:36 13:02:40 13:02:45

Q And the tape-like strip would have the shape of an elongated rectangle, we discussed earlier, correct? 13:02:48 13:02:55 13:02:58

A Could you repeat the question, please? 13:03:04

Q A tape-like strip would have the shape of an elongated rectangle that we discussed earlier, correct? 13:03:06 13:03:10 13:03:13

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A I believe that is accurate, yes. 13:03:17

Q Okay. So, I want you to focus on that physical shape of an elongated rectangle as applied to armor 18, okay? 13:03:18 13:03:21 13:03:25

A Yes. 13:03:34

Q Okay. Did you, in your declaration, ever testify that within that physical shape, there is a discontinuity? 13:03:34 13:03:36 13:03:40

A What I identified is based on the teaching of Roberts that the metal seal 18 is described in Roberts as a metal arm shield, metal armor tape, or armor, that the metal armor shield/tape 18 provides mechanical armor protection to the cable. 13:03:45 13:03:55 13:04:01 13:04:07 13:04:10

And I also identified in my report that Roberts does not disclose that the metal armor shield includes the claimed conducted material contained between two layers of the dielectric material, where the conducted material extends to each lateral edge of the two layers of the dielectric material; and that Roberts metal armor shield 18, which provides mechanical protection to the cable, is not a metal foil like shield 15. 13:04:13 13:04:16 13:04:20 13:04:24 13:04:26 13:04:30 13:04:32 13:04:37 13:04:41

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Roberts teaches that metal armor shield 18, which provides a mechanical shield, is different than any of the other shields disclosed in Roberts. 13:04:44 13:04:48 13:04:51 13:04:54

Q Let's go to Roberts for a moment. You know, pause. Before we do that, you have brought up the distinction of a mechanical shield quite a few times, correct? 13:05:27 13:05:50 13:05:52 13:05:55

A I believe I did -- 13:05:57

Q Okay. 13:06:00

A -- consistent with the declaration, yes. 13:06:00

Q Okay. Is it your opinion that there is some claim term in claim 1 or claim 18 of the '030 patent that excludes mechanical shield? 13:06:02 13:06:04 13:06:09

MR. SULLIVAN: Objection to form. 13:06:15

A Could you repeat the question, please? 13:06:17

Q Is it your opinion that there is some claim term in claim 1 or claim 18 of the '030 patent that excludes mechanical shields? 13:06:41 13:06:43 13:06:46

MR. SULLIVAN: Same objection. 13:06:56

(Witness reviewing document.) 13:07:17

A Could you repeat the question, please? 13:08:15

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Is it your opinion that there is some claim term in claim 1 or claim 18 of the '030 patent that excludes mechanical shields? 13:08:23 13:08:25 13:08:28

A The independent claims 1 and 18 of the '030 patent require a number of elements, including a multilayer conductive barrier tape, the barrier tape which provides a solution to reducing alien crosstalk between adjacent cables, and as such is directed to the conductive barrier tape comprising a conductive material contained between two layers of a dielectric material, to achieve the electrical characteristics of reducing alien crosstalk. 13:08:36 13:08:41 13:08:44 13:08:51 13:08:55 13:09:03 13:09:13 13:09:16 13:09:19 13:09:25

MR. BULLARD: All right. Move to strike as nonresponsive. 13:09:33 13:09:34

Q It was a yes-or-no question, Doctor. Yes or no, is your opinion that there is some claim term in claim 1 or claim 18 of the '030 patent that excludes mechanical shields? 13:09:35 13:09:37 13:09:38 13:09:41

A It is my opinion that the claims -- that claims 1 and 18 of the '030 patent require a number of elements, including a multilayer 13:09:50 13:09:51 13:09:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

conductive barrier tape, which, as per the specification of the '030 patent, provides a solution to reducing alien crosstalk between adjacent cables, and that the claimed barrier tape includes a continuous conductive material contained between two layers of a dielectric material, where the conducted material extends to each lateral edge of the two layers of the dielectric material. 13:09:58 13:10:03 13:10:06 13:10:11 13:10:15 13:10:18 13:10:20 13:10:23 13:10:26

Q And were you just reading from your declaration? 13:10:26 13:10:28

A I was reading from several sections of my declaration, yes. 13:10:30 13:10:33

Q Okay. Do you understand that you're violating the rules of the deposition if, instead of answering my questions, you simply read nonresponsive sections of your declaration? 13:10:34 13:10:36 13:10:39 13:10:42

MR. SULLIVAN: Objection to form. 13:10:44

A I don't agree with that characterization of my answer. 13:10:48 13:10:51

Q Yeah, I -- I don't care what your opinion is about the characterization. I want to make 13:10:52 13:10:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

sure you understand the rules you're operating under. 13:10:58 13:11:00

So, do you understand that you need to answer the specific question I ask, not a question you wished I'd asked, but, in fact, the specific question I asked? 13:11:00 13:11:06 13:11:08 13:11:11

Do you understand that? 13:11:12

A Yes, I do. 13:11:13

MR. SULLIVAN: Objection, form. 13:11:13

A Yes, I do. 13:11:15

Q Okay. Can you please change your behavior and do that? 13:11:16 13:11:18

MR. SULLIVAN: Objection to form. 13:11:21

A Please -- yes, please proceed and ask that question or any additional questions you have. 13:11:25 13:11:28

MR. BULLARD: Okay. Let's take a break. And, Counsel, could you instruct your witness to please answer the question. I'm concerned that we're going to have to repeat the deposition. I think the record -- I'm sure you will have your own opinion, but I'm very comfortable with the record that we've had about an hour of testimony 13:11:30 13:11:31 13:11:34 13:11:36 13:11:39 13:11:41 13:11:43

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

where your witness has simply not answering the question. I have no problem going to the board, showing the transcript. 13:11:45 13:11:47 13:11:50

So, let's take a break. You can talk to your witness as you think is appropriate on that specific subject. 13:11:51 13:11:53 13:11:57

MR. SULLIVAN: Okay. 13:11:59

THE VIDEOGRAPHER: We are going off the record. The time is 1:12 p.m. 13:12:00 13:12:01

(Off the record.) 13:12:05

THE VIDEOGRAPHER: We are back on the record. The time is 1:22 p.m. 13:21:49 13:21:50

BY MR. BULLARD: 13:21:53

Q Your testimony is that armor 18 is simply a mechanical shield, correct? 13:21:54 13:21:59

MR. SULLIVAN: Objection to form. 13:22:01

A One second, please. I'll answer your question. 13:22:41 13:22:43

(Witness reviewing document.)

A It is my opinion based on the disclosure in the Roberts reference that the shield 18 is -- is for mechanical or armor protection. 13:23:16 13:23:19 13:23:35

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Does it also provide electrical protection -- or strike that. 13:23:41 13:23:43

Does it also provide electrical shielding? 13:23:46

(Witness reviewing documents.) 13:24:23

A According to Roberts, with reference to the armor -- and I'll give you the sections I'm reading, is in column 4, line 20, this particular piece of armor is in sense -- in -- excuse me, let me start again. 13:24:25 13:24:30 13:24:34 13:24:39 13:24:43

This particular piece of armor is in a sense an electrical as well as a mechanical shield. 13:24:44 13:24:47 13:24:49

And then Roberts goes on to teach -- what Roberts teaches for the purposes -- excuse me. This is in line 62 of column 4: For the purposes of this disclosure, when reference is made to a shield other than element 18, an electrical shield is meant. 13:24:51 13:25:09 13:25:12 13:25:16 13:25:20 13:25:23

And it goes on to discuss the double meaning of "shield," but is it my understanding from Roberts that he is teaching the utilization of shield 18 as a mechanical armor protection. 13:25:27 13:25:30 13:25:33 13:25:39

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q So, when you testified earlier about it being a mechanical shield, you left out Roberts' express teaching that it's also an electrical shield, correct? 13:25:45 13:25:48 13:25:52 13:25:55

MR. SULLIVAN: Objection to form. 13:25:56

A I didn't leave it out at all. I summarized the teaching of Roberts, which I just read you two sections which Roberts clarifies. Roberts says that -- 13:26:00 13:26:03 13:26:07 13:26:10

Q I'm talking about your testimony before -- 13:26:15

MR. SULLIVAN: Please let him -- 13:26:17

(Indiscernible crosstalk.) 13:26:19

MR. BULLARD: I'm talking about the testimony before the break. 13:26:19 13:26:21

MR. SULLIVAN: Please let him answer. 13:26:22

(Indiscernible crosstalk.) 13:26:22

MR. BULLARD: I'm in charge of the deposition. I'm talking about -- 13:26:22 13:26:24

(Interrupted crosstalk.) 13:26:26

Q I'm talking about the testimony before the break when I asked about the armor -- 13:26:26 13:26:29

(Indiscernible crosstalk.) 13:26:30

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q -- and you answered, and you said it was a mechanical shield. You never mentioned it was an electrical shield, correct? 13:26:31 13:26:34 13:26:36

MR. SULLIVAN: Counselor, you're going to let him finish his answers. You're lecturing us on what the rules are. You've got to let him finish his answer. 13:26:40 13:26:41 13:26:45 13:26:47

MR. BULLARD: Your witness needs to respond to the question. 13:26:49 13:26:50

MR. SULLIVAN: Let's take a break. Let's -- let's just take a break. Let's go off the record. 13:26:51 13:26:53 13:26:56

Are we going off the record? 13:26:59

MR. BULLARD: That's fine. 13:27:01

THE VIDEOGRAPHER: We are going off the record. The time is 1:27 p.m. 13:27:10 13:27:12

(Off the record.) 13:27:14

THE VIDEOGRAPHER: We are back on the record. The time is 1:29 p.m. 13:29:06 13:29:09

BY MR. BULLARD: 13:29:13

Q Did you talk to your counsel on the prior break about answering my questions? 13:29:13 13:29:16

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Counsel advised me to answer your questions to the best of my ability, including reading the references in addition to my declaration. 13:29:18 13:29:23 13:29:27 13:29:31

Q Okay, great. So, please do that. 13:29:32

Let's go back to column 4 and the teaching at line 20 to line 23 that reads, quote: This particular piece of armor is, in a sense, an electrical, as well as a mechanical shield, and it can have a plastic such as a polyethylene firmly adhered to one or more surfaces thereof. 13:29:35 13:29:39 13:29:46 13:29:49 13:29:52 13:29:57

Do you see that? 13:29:59

A Yes, I do. 13:30:01

Q You never addressed that teaching anywhere in either of your declarations, correct? 13:30:01 13:30:04

MR. SULLIVAN: Objection to form. 13:30:05

So, part of the issue, you're asking him to look at his entire declaration just to confirm whether he addressed that; is that correct? 13:30:17 13:30:19 13:30:24

MR. BULLARD: I'm not going to respond. You're not here to testify. You can ask whatever redirect you'd like. 13:30:24 13:30:24 13:30:27

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Could you ask the -- repeat the question and I'll answer it directly? 13:30:53 13:30:55

Q You never addressed that teaching anywhere in either of your declarations, correct? 13:30:56 13:30:58

MR. SULLIVAN: Objection to form. 13:31:01

A I addressed the teachings of Roberts as a whole, including that section that the particular piece of armor is, in a sense, electrical, as well as a mechanical shield, in conjunction with the teachings at line 62, where Roberts makes it clear that that armor is for mechanical protection. 13:31:04 13:31:08 13:31:13 13:31:16 13:31:19 13:31:24

And I considered that armor for mechanical protection in the context that it could have a plastic such as polyethylene firmly adhered to one or more of the surfaces in its function as a mechanical shield. 13:31:30 13:31:36 13:31:38 13:31:42 13:31:45

Q Please identify for the record the specific paragraph where you addressed that teaching I read earlier. 13:31:47 13:31:50 13:31:52

MR. SULLIVAN: Objection to form. 13:31:56

(Witness reviewing document.) 13:32:03

A I referred to Roberts' teaching of the 13:33:45

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

metal shield in paragraph 108, where Roberts' metal shield is described in Roberts as a metal shield, metal armor tape, or armor. And I cited Roberts columns 4, lines 15 through 22, which includes that test that you have directed me to. 13:33:50 13:33:54 13:33:58 13:34:01 13:34:06

Q Nowhere in that paragraph do you ever discuss that teaching about it being also an electrical shield and also having plastic coating, correct? 13:34:16 13:34:18 13:34:21 13:34:25

MR. SULLIVAN: Objection to form. 13:34:25

A What I discussed in that paragraph is that, as explained in ground 5, Roberts' metal shield is described in Roberts as a metal armor shield, metal armor tape. And in that paragraph, I describe it that was used to provide mechanical armor protection. 13:34:28 13:34:41 13:34:46 13:34:50 13:34:53 13:34:56

And I referenced and I cited in that paragraph both of these sections, including the text that we've read. I can read it to you again up in -- beginning in line 15 through 22, which -- which read in conjunction with the text in lines 62 through 67, which I have cited, would teach 13:34:58 13:35:01 13:35:07 13:35:10 13:35:13 13:35:18

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

that it is used for mechanical armor protection, including the configurations of the plastic on the metal armor shield. 13:35:25 13:35:29 13:35:34

Q And what do you understand the reference to mean when it says it can have plastic firmly adhered to either one or more surfaces thereof? 13:35:37 13:35:40 13:35:43

MR. SULLIVAN: Objection to form. 13:35:46

A Could you repeat the question, again, please? 13:35:49 13:35:51

Q What do you understand the reference to mean when it says it can have plastic firmly adhered to either one or more surfaces thereof? 13:35:53 13:35:55 13:35:58

MR. SULLIVAN: Objection to form. 13:36:01

A It -- it is my understanding that -- and I -- my opinion that a person of skill in the art at the time would understand that the metal armor shield which provides a mechanical shield could be coated to enhance its resistance to corrosion. 13:36:06 13:36:11 13:36:14 13:36:17 13:36:20

Q And that would include coating it on the top surface and coating it on the bottom surface, correct? 13:36:29 13:36:31 13:36:33

A That is correct, to provide the best 13:36:38

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

degree of robustness against corrosion to protect mechanical integrity, one could contemplate coatings on both sides. 13:36:42 13:36:49 13:36:53

Q And in -- in that example, in Roberts, where the armor 18 has plastic coated on the top surface, and the bottom surface, the armor 18 would now have three layers, right, plastic/metal/plastic? 13:36:56 13:37:00 13:37:04 13:37:07 13:37:10

A Well, in the words of Roberts, line 21, it can have a plastic -- excuse me -- lines 21 and 22, I believe, it can have a plastic such as polyethylene firmly adhered to either one or more surfaces thereof. 13:37:28 13:37:32 13:37:36 13:37:40 13:37:45

Q Right. And you agreed that would include coating it on the top surface and coating it on the bottom surface. So my question was, in that example where it's coated on the top surface and the bottom surface, now, armor 18 would be a three-layer armor, one layer plastic, one layer metal, one more layer plastic, right? 13:37:53 13:37:56 13:37:57 13:38:01 13:38:04 13:38:08 13:38:13

A I believe that is an accurate description and that that is consistent with the teaching of 13:38:17 13:38:19

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Roberts, that it can have a plastic such as polyethylene firmly adhered to one or more surfaces thereof. 13:38:22 13:38:27 13:38:29

Q So, in that example, armor 18 would now be a multilayer barrier tape where the metal is contained between two layers of dielectric material, correct? 13:38:30 13:38:34 13:38:40 13:38:43

MR. SULLIVAN: Objection to form. 13:38:44

A Well, the teaching of Roberts is that the metal armor can have a plastic such as polyethylene firmly adhered to either one or more surfaces thereof. It's my understanding and my opinion that a person of skill in the art could understand that polyethylene could be considered a dielectric, although in the context of Roberts, the metal armor shield 18 is a mechanical shield. 13:38:49 13:38:52 13:38:56 13:38:59 13:39:02 13:39:05 13:39:08 13:39:11

Q So, in that example, armor 18 would be a multilayer tape where the metal is contained between two layers of dielectric material, the dielectric material being plastic, correct? 13:39:17 13:39:21 13:39:24 13:39:27

MR. SULLIVAN: Objection to form. 13:39:30

A Could you repeat the question, please? 13:39:32

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yeah. So, in that example, armor 18 would be a multilayer tape where the metal is contained between two layers of dielectric material, the dielectric material being the plastic, correct? 13:39:34 13:39:37 13:39:41 13:39:44

MR. SULLIVAN: Objection to form. 13:39:48

A Yes, the metal armor tape which serves as a mechanical shield would be multilayer with two layers of plastic. 13:39:49 13:39:53 13:39:59

Q And the metal would be between those two layers, correct? 13:40:01 13:40:04

A Yes, I believe that is consistent with the teaching of Roberts in that the polyethylene is adhered to either one or more surfaces. 13:40:06 13:40:09 13:40:15

Q And you never addressed that specific configuration of armor 18 in your declarations, correct? 13:40:18 13:40:22 13:40:26

MR. SULLIVAN: Objection to form, asked and answered. 13:40:27 13:40:44

(Witness reviewing document.) 13:40:47

A No, I -- as I explained before, I do not -- no, that's not correct. I explained in paragraph 108 of my first declaration that Roberts 13:40:51 13:40:54 13:40:58

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

metal shield described in Roberts as a metal armor shield, metal armor tape, or armor. And I cited Roberts column 4, lines 15 to 22, including the polyethylene -- excuse me -- is that polyethylene firmly adhered to one or more surfaces thereof, and that the metal armor shield/tape provides mechanical armor protection to the cable as described in -- by Roberts in column 4, line 62 to 67. 13:41:03 13:41:08 13:41:12 13:41:17 13:41:25 13:41:29 13:41:34 13:41:37 13:41:40

Q In paragraph 81 of your declaration, you say at the bottom of page 26, that, quote: As a result, a POSITA would not understand that metal foil shield 15 could be used for metal armor shield 18. 13:41:45 13:41:49 13:41:54 13:41:57 13:42:02

Do you see that? 13:42:03

A Yes, I do. 13:42:05

Q What did you mean by "used for"? 13:42:07

A Another way to describe that would be served the function of. 13:42:18 13:42:20

Q And are you getting at that a POSITA would not understand that you could replace armor shield 18 with foil shield 15? 13:42:23 13:42:26 13:42:29

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 13:42:34

(Witness reviewing document.) 13:43:05

A Could you repeat the question, please? 13:43:40

Q Are you getting at that a POSITA, in your opinion, would not understand that you could replace armor shield 18 with foil shield 15? 13:43:42 13:43:44 13:43:46

MR. SULLIVAN: Objection to form. 13:43:51

(Witness reviewing document.) 13:44:37

A To answer your question, as I stated in my declaration, in paragraph 110, Roberts' metal armor shield 18, which provides mechanical protection to cable, is not a metal foil like shield 15. It has a thickness greater than a foil to provide mechanical protection. Roberts teaches that metal armor shield 18, which provides a mechanical shield is different than any of the other shields disclosed in Roberts, including metal foil shield -- excuse me, metal foil shield 15, which provides an electrical shield and does not provide mechanical armor protection. 13:47:06 13:47:10 13:47:14 13:47:16 13:47:20 13:47:25 13:47:29 13:47:32 13:47:35 13:47:38 13:47:43 13:47:46

Q So, is your opinion that a POSITA would not understand you could replace armor shield 18 13:47:50 13:47:53

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

with foil shield 15? 13:47:57

A For at least that reason, a POSITA would 13:48:03

not replace armor shield 15 with metal foil shield 13:48:07

15 -- excuse me -- would not replace armor shield 13:48:13

18 with metal foil shield 15. 13:48:16

Q And do you recall the example where armor 13:48:22

18 itself is coated with plastic on the top 13:48:25

surface and the bottom surface? 13:48:29

A I recall that discussion, yes. 13:48:33

Q Okay. Would you look at figures 5, 6, 7 13:48:39

and 8? 13:48:43

A Of Roberts? 13:48:43

Q Correct. 13:48:45

A Yes, I am there. 13:49:21

Q In the example where the armor 18 is 13:49:23

coated with plastic on the top surface and the 13:49:29

bottom surface, the plastic coating would have the 13:49:33

configuration shown in figure 5, correct? 13:49:36

MR. SULLIVAN: Objection to form. 13:50:20

(Witness reviewing document.) 13:50:53

A No, that is not correct. 13:51:00

Q You didn't offer an opinion in your 13:51:03

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

declaration that the plastic coating would have some different configuration in the specific example where the armor 18 is coated on the top and bottom with plastic, did you? 13:51:06 13:51:12 13:51:15 13:51:20

MR. SULLIVAN: Objection to form. 13:51:23

A I did address this issue in my discussion of Roberts' metal shield in paragraphs 108. And I think it's important to note that Roberts is silent with respect to the configuration of a polyethylene and that those figures that you're referring to of our elements 5, 6, 7 and 8 cross-sectional view of the particular metal foil tapes such that the armor could be of different configurations, including different configurations of plastic coatings. 13:52:27 13:52:30 13:52:39 13:52:46 13:52:52 13:52:55 13:53:02 13:53:06 13:53:18 13:53:26

MR. BULLARD: All right. Move to strike nonresponsive. 13:53:29 13:53:30

Q Would you turn your attention to -- 13:53:31

MR. SULLIVAN: I object to that... strike the answer to the question. 13:53:36 13:53:39

MR. BULLARD: The question was directed specifically at the opinion he offered. I wasn't 13:53:42 13:53:43

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

seeking any opinion that wasn't offered in his declaration. 13:53:46 13:53:50

Q Would you direct your attention to a new exhibit I put into the chat, please. Do you have that open? 13:53:51 13:53:58 13:54:17

A Just -- I just downloaded it. Give me one second. Very beautifully covered figure, yes. 13:54:18 13:54:21

Q And this is a colored figure of figure 17 of Roberts, correct? 13:54:25 13:54:29

A One second. 13:54:32

THE COURT REPORTER: Are we going to mark this?

MR. BULLARD: Yes, thank you. 13:54:34

A/V TECHNICIAN: I've marked this exhibit as Exhibit 2. 13:54:34 13:54:46

(Marked for identification Exhibit 2, Figure 17 of Roberts.) 13:54:47 13:54:48

MR. SULLIVAN: You said figure 17? 13:54:59

MR. BULLARD: Correct. It's also identified as sheet 12 of 15 at the top and then figure 17 at the bottom left. 13:55:00 13:55:02 13:55:05

A I can -- I see and agree, yes. 13:55:12

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Okay. And do you see the red arrows in the exhibit? 13:55:14 13:55:18

A Yes, I do. 13:55:20

Q And those are identifying what you would call the lateral edges of the armor 18, correct? 13:55:21 13:55:26

A I believe that is accurate, yes. 13:55:32

Q And you see that between those edges and the electrical conductors in the center of the cable, there is an additional component annotated in green, correct? 13:55:33 13:55:40 13:55:43 13:55:51

A I see that, yes. 13:55:56

Q And that's another plastic tape, right? 13:55:57

A I'm going to go back and check Roberts, but I see it as 17, but I want to go confirm that. 13:56:03 13:56:06

(Witness reviewing document.) 13:56:31

Q And if you want to look, for example, in column 4, line 19 to 20, I think you will see a reference to plastic tape 17. 13:56:44 13:56:46 13:56:52

A That's exactly where I am, so we're on the same page. I'm with you and I see that -- I'm sorry, if there was a question pending, I've forgotten it. 13:56:54 13:56:57 13:57:15 13:57:18

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

(Indiscernible crosstalk.) 13:57:20

Q So, between the -- strike that. 13:57:22

Between what would you call the lateral 13:57:27

edges of the armor 18 and the electrical 13:57:29

conductors in the center of the cable, there is an 13:57:34

additional plastic tape separating the armor from 13:57:38

the conductors in the center, correct? 13:57:46

A I believe that is accurate, yes. 13:57:54

Q So, the edges of armor 18 are not exposed 13:57:56

to the conductors in the center of the cable, 13:58:03

correct? 13:58:08

MR. SULLIVAN: Form. 13:58:13

A Could you repeat the question, please? 13:58:13

Q The edges of armor 18 are not exposed to 13:58:16

the conductors in the center of the cable, 13:58:19

correct? 13:58:22

MR. SULLIVAN: Objection to form. 13:58:23

A Well, the edges -- the edges are not 13:58:34

exposed to the conductor, but I'm not sure what 13:58:37

that has to do with 17. Go ahead. 13:58:41

Q Well, the edges of armor 18 are separated 13:58:45

from the conductors in the center of the cable by 13:59:07

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

that plastic tape annotated in green, correct? 13:59:10

THE VIDEOGRAPHER: Let's go off the 13:59:58

record, Counsel. 14:00:03

MR. BULLARD: Yeah, go ahead. 14:00:04

THE VIDEOGRAPHER: Okay. We are going off 14:00:05

the record. The time is 2:00 p.m. 14:00:07

(Off the record.) 14:00:09

THE VIDEOGRAPHER: We are back on the 14:18:26

record. The time is 2:19 p.m. 14:18:28

BY MR. BULLARD: 14:18:32

Q The edge of armor -- or strike that.

The edges of armor 18 are separated from 14:18:32

the conductors in the center of the cable by the 14:18:36

plastic tape annotated in green, correct? 14:18:39

A In that embodiment that is illustrated or 14:18:45

annotated, the edges are isolated from the 14:18:56

conductors by the barrier tape, which I believe is 14:19:02

17. So, that's correct, yes. 14:19:06

Q Okay. Can you look in the chat now at 14:19:09

Exhibit 1010, which is the Cook reference you 14:19:13

should recognize. 14:19:18

A I'm getting there. 14:19:21

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

(Marked for identification Exhibit 1010, Cook reference.) 14:19:24 14:19:26

A I've got that open. 14:19:40

Q Okay. And would you turn your attention to figures 8A through 8D. 14:19:41 14:19:43

A I am there. 14:20:05

Q Okay. What is the difference between 8D and 8A, B and C? 14:20:07 14:20:10

MR. SULLIVAN: Objection to form. 14:20:14

A The differences are -- or if I may first summarize what they are. They are nonlimiting examples of patch patterns that may be utilized in a discontinuous shield. 14:21:02 14:21:07 14:21:11 14:21:14

Q And what is the difference in the pattern 8D compared to A, B and C? 14:21:20 14:21:23

MR. SULLIVAN: Objection to form. 14:21:27

A The patterns in A, B and C represent patches, a series of patches separated by empty space; whereas, 8D represents one patch with discontinuous -- excuse me, let me try that again. 14:21:38 14:21:49 14:21:57 14:22:03

Figures 8A, B and C represent patches that terminate on both ends and are separated by empty 14:22:08 14:22:18

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

sections, not containing conductive material; whereas, 8D indicates a patch that is terminated on both ends but is a solid patch, not separated by empty sections. 14:22:24 14:22:27 14:22:32 14:22:38

Q Focusing on the conductive material itself in 8D, there are no discontinuities within the material itself, correct? 14:22:40 14:22:47 14:22:54

MR. SULLIVAN: Objection to form. 14:22:58

(Witness reviewing document.) 14:23:28

A Yes, the metal layer, the patch, the patch itself -- the patch which is part of the -- which is discontinuous with the subsequent patch in 8D is a -- a metal layer that is formed of one -- appears to -- excuse me, it appears to maintain an electrical connectivity from one end to the other of that isolated patch in 8D. 14:25:09 14:25:13 14:25:22 14:25:27 14:25:38 14:25:41 14:25:44

Q So, focusing on the patch itself, there are no discontinuities in the patch? 14:25:49 14:25:53

A The patch itself would not appear to have discontinuities along the context of the tape is a serious -- a series of patches that are made discontinuous by gaps at each end. 14:25:57 14:26:02 14:26:09 14:26:15

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And can you turn your attention to column 7 in Roberts -- or I'm sorry, strike that, column 7 in Cook, and, in particular, lines 6 through 9. 14:26:18 14:26:28 14:26:32

A Yes, I'm there. 14:27:02

Q All right. So, you see it says, quote: A few nonlimiting examples of patch patterns that may be utilized in a discontinuous shield are described in greater detail below with reference to figures 8A through 8C? 14:27:03 14:27:07 14:27:10 14:27:13 14:27:15

A I see that, yes. 14:27:19

Q Okay. And 8D is not listed. 14:27:20

A It is not. 14:27:23

Q Okay. What's your understanding of why 8D is not listed as part of that description? 14:27:24 14:27:27

MR. SULLIVAN: Objection to form. 14:27:30

We are hearing some background noise there. 14:27:37 14:27:39

THE VIDEOGRAPHER: We are going off the record. The time is 2:28 p.m. 14:28:04 14:28:06

(Off the record.) 14:28:08

THE VIDEOGRAPHER: We are back on the record. The time is 2:30 p.m. 14:30:21 14:30:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

BY MR. BULLARD: 14:30:25

Q Okay. So, the question was, what's your understanding of why 8D is not listed as part of that description? 14:30:26 14:30:27 14:30:31

MR. SULLIVAN: Objection to form. 14:30:33

A It is my understanding that the figures 8A through C illustrate a certain configuration of patches and that figure 8D is different, and it's different and described subsequently in Cook. 14:30:41 14:30:45 14:30:49 14:30:57

Q And you agree 8D is -- is different than the discontinuous shield shown in 8A and 8C? 14:31:00 14:31:10

MR. SULLIVAN: Objection to form. 14:31:14

A 8D is a different embodiment with a different separator segment. 14:31:15 14:31:27

Q Would you turn your attention to column 23, please. And would you direct your attention to line 62 to 64 at the bottom where it says, quote: As desired, a dielectric end may be positioned at one end of the segment 840. 14:31:31 14:31:41 14:31:50 14:31:59 14:32:05

A I see that, yes. 14:32:16

Q Okay. What's your understanding of what the "may" refers to? 14:32:18 14:32:25

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 14:32:28

A It is my understanding that what Cook is 14:32:55
teaching is that the relatively continuous patch 14:32:59
can then be followed by a dielectric end to create 14:33:09
a discontinuous -- the overall characteristics of 14:33:18
the shield to make the overall characteristic of 14:33:24
the shield discontinuous such that you do not have 14:33:27
conductivity from one end of the shield to the 14:33:32
other, to incorporate the benefits of a 14:33:35
discontinuous shield. 14:33:39

Q And the use of the "may" indicates that 14:33:41
you don't have to have a dielectric end, it's just 14:33:47
an option, right? 14:33:52

MR. SULLIVAN: Objection to form. 14:33:54

A It is my understanding of Cook that Cook 14:34:29
teaches that you may incorporate a dielectric 14:34:32
segment to avoid creating a continuous shield, 14:34:39
which is the patents that were incorporated by 14:34:45
reference into Cook teach that complications can 14:34:49
arise when a cable is encased by a shield that is 14:34:52
electrically continuous between the two ends of 14:34:55
the cable, and that those references that were 14:34:59

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

incorporated into Cook teach that tape can be a shield as electrically discontinuous, and that what Cook is teaching is the desirability of a tape that is not conductive from one end to the other. 14:35:01 14:35:07 14:35:11 14:35:17 14:35:22

Q And what happens if you omit the dielectric end, what type of shield do you have then? 14:35:22 14:35:26 14:35:29

MR. SULLIVAN: Objection to form. 14:35:30

A Could you repeat the question, please? 14:35:36

Q Yeah. What happens if you omit the dielectric end, what type of shield do you then have? 14:35:37 14:35:39 14:35:42

MR. SULLIVAN: Objection to form. 14:35:44

(Witness reviewing document.) 14:36:27

A If you omit the dielectric end -- although it does not seem consistent with the teachings of Cook, if you omit the dielectric end, you could obtain a continuous shield, which Cook, by incorporating by reference McNutt, teaches that complications can arise when a cable is encased by a shield that is electrically continuous between 14:36:51 14:37:02 14:37:06 14:37:09 14:37:13 14:37:21 14:37:24

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

two ends of the cable. 14:37:27

Q And you would agree that Cook does not say 14:37:29

that the dielectric end must be positioned, right? 14:37:38

MR. SULLIVAN: Objection to form. 14:37:42

A I would agree that Cook does not use the 14:38:00

word "must," but teaches through its incorporation 14:38:03

by reference that complications can arise when a 14:38:14

cable is encased by a shield that is electrically 14:38:17

continuous between the two ends of the cable. 14:38:20

Q You would agree that standard English 14:38:24

convention is that by using the word "may" instead 14:38:28

of "must," this teaching would contemplate either 14:38:31

you have the dielectric end or you don't have the 14:38:37

dielectric end? 14:38:40

MR. SULLIVAN: Objection, form. 14:38:41

A Cook uses the word "may" both illustrates 14:38:56

in figure 8D the presence of the dielectric ends, 14:39:01

and through incorporation by reference teaches 14:39:05

that you would avoid creating a continuous -- 14:39:08

electrically continuous shield, which is 14:39:12

continuous between the two ends of the cable. 14:39:17

Q You would agree, though, that a POSITA 14:39:24

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

reading that sentence and appreciating that the sentence uses "may," not "must," means that Cook does not require you to have a dielectric end? 14:39:26 14:39:30 14:39:34

MR. SULLIVAN: Objection to form, asked and answered. 14:39:40 14:40:25

A Reading Cook in its entirety, Cook states that the separator segment 840 may include a relatively continuous patch electrically conducted material running along longitudinal length of the separator. And he says is that desired dielectric end may be positioned. 14:40:25 14:40:28 14:40:32 14:40:35 14:40:38 14:40:40

So, that Cook seems to be articulating a number of configurations, but is consistent in his teachings by incorporating by reference that one wants to avoid a continuous shield that is electrically continuous between the two ends of the cable. 14:40:41 14:40:48 14:40:52 14:40:56 14:40:59 14:41:02

Q So, do you think it's fair to summarize what you're driving at as, in your opinion, Cook is saying it's desirable to have a dielectric end, but I also disclose that you don't have to have a dielectric end? 14:41:07 14:41:09 14:41:13 14:41:21 14:41:26

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 14:41:28

A I would say he discloses that you -- he also discloses the separator segment 840 may include relatively continuous patch, implying that the patches are not obligatory. 14:41:30 14:41:35 14:41:39 14:41:45

Q So you understand the use of the word "may" to describe things that are not obligatory? 14:41:52 14:41:54

MR. SULLIVAN: Objection to form. 14:42:01

A Well, it's my understanding that one is teaching embodiments that read in the -- that need to be read in the context of the patent, and that Cook is teaching a number of embodiments, and that a POSITA reviewing the entirety of the Cook, including McNutt and Smith both incorporate reference, would not understand the "may" language to be a continuous shield and would be discouraged from making the relatively continuous shield shown in figure 8D a continuous shield. 14:42:06 14:42:12 14:42:17 14:42:21 14:42:35 14:42:38 14:42:41 14:42:47 14:42:52 14:42:54

Q Do you agree that just in ordinary English the word "may" signals something that is not obligatory? 14:42:58 14:43:01 14:43:05

MR. SULLIVAN: Objection to form. 14:43:08

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Would you repeat the question, please? 14:43:47

Q Yeah. Do you agree that in ordinary 14:43:48

English the word, quote, "may" signals something 14:43:51

that is not obligatory? 14:43:54

MR. SULLIVAN: Objection to form. 14:44:04

A I believe that it could be understood to 14:44:07

be nonobligatory. But in the context of patent 14:44:12

language, it's also used to avoid constraining the 14:44:15

invention to a particular embodiment. 14:44:19

Q And would you turn your attention to 14:44:24

column 25, line 64? 14:44:30

A Yes. 14:44:46

Q Reading that, a POSITA would understand 14:44:47

that Cook is using "may" like other conditional 14:44:57

language to signal that some embodiments have the 14:45:02

feature and some embodiments don't have the 14:45:04

feature, right? 14:45:07

MR. SULLIVAN: Objection to form. 14:45:09

A Again, as I've stated, I acknowledge that 14:45:25

language in the pointed out column 25 which is 14:45:29

consistent with what I just said, but that's also 14:45:33

consistent with the teachings of Cook, which a 14:45:36

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

POSITA reviewing the entirety of Cook, including McNutt and Smith 641, which are both incorporated by reference, would not understand that the relatively continuous shield made with a patch of conducted material is actually a continuous shield and would be discouraged from making the relatively continuous shield shown in figure 8D a continuous shield. A POSITA would understand that the discontinuous shield provides the appropriate electrical characteristics for controlling inference while avoiding the well-understood disadvantages of continuous shields, creation of a shock hazard, potential ground loops which would act as an antenna. And as such, I do not believe that the teaching of Cook, when read in its entirety, suggests that 8D would be used to make a continuous shield. 14:45:41 14:45:45 14:45:48 14:45:52 14:45:55 14:45:58 14:46:00 14:46:04 14:46:07 14:46:09 14:46:12 14:46:15 14:46:19 14:46:21 14:46:24 14:46:28 14:46:33

Q The use of the word "relatively" to describe 8D refers to the fact that, as depicted, there is a dielectric end, right? 14:46:36 14:46:40 14:46:46

(Witness reviewing document.) 14:47:26

A Could you repeat the question, please? 14:48:49

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Cook using the word "relatively" when describing figure 8D because there is a dielectric end, right? 14:48:53 14:48:59 14:49:05

MR. SULLIVAN: Objection to form. 14:49:10

A It's my understanding -- my opinion that Cook describes the conductive material of the shield layer 840, which is shown in figure 8D, as being relatively continuous with a dielectric end. 14:49:15 14:49:17 14:49:20 14:49:24

Q And I'm just trying to confirm that "relatively" is recognizing the fact that the conductive material doesn't extend to the dielectric end; is that right? 14:49:28 14:49:35 14:49:40 14:49:45

MR. SULLIVAN: Objection to form. 14:49:50

(Witness reviewing document.) 14:50:02

A Cook teaches: The separator segment 840 may include a relatively continuous patch of electrically conducted material running along a longitudinal length of the separator 840. 14:50:40 14:50:44 14:50:47 14:50:50

Then goes on to say: As desired, a dielectric end may be positioned at one end of the segment 840. 14:50:54 14:50:57 14:50:59

Then states: With a shield layer, a 14:51:00

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

relatively continuous shield may be performed and, as desired, may be grounded. 14:51:03 14:51:08

So, it's my understanding that a POSITA reviewing the entirety of Cook, including McNutt and Smith 641, which are both incorporated by reference, would not understand that the relatively continuous shield made with a patch of conducted material was actually a continuous shield, and would be discouraged from making the relatively continuous shield shown in figure 8D a continuous shield. A POSITA would understand that the discontinuous shield provides the appropriate electrical characteristics for controlling inference while avoiding the well-understood disadvantages of continuous shields, e.g., creation of a shock hazard, potential ground loops that act as an antenna. 14:51:10 14:51:15 14:51:19 14:51:22 14:51:24 14:51:27 14:51:30 14:51:32 14:51:36 14:51:39 14:51:43 14:51:46 14:51:49 14:51:53 14:51:57

Q My question is just what do you understand the word "relatively" is referring to? You know, why is it relatively continuous and not continuous? 14:51:58 14:52:01 14:52:05

What feature makes it relatively 14:52:08

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

continuous? 14:52:10

MR. SULLIVAN: Objection to form. 14:52:10

A It is my understanding that the relatively 14:52:40
continuous describes the patch of 8D, which when 14:52:43
used in conjunction with the other patches creates 14:52:48
a shield layer with a relatively continuous 14:52:53
shield, that relatively continuous shield not 14:52:56
being electrically continuous from one end to the 14:53:01
other in order to avoid the well-understood 14:53:05
disadvantages of continuous shields. 14:53:10

Q So, the "relatively is referring to the 14:53:11
fact that, on one of the ends, there is a 14:53:15
dielectric end; is that right? 14:53:19

MR. SULLIVAN: Objection to form. 14:53:22

A The "relatively continuous" refers to, as 14:53:38
described by Cook, a shield layer, which is not 14:53:42
electrically continuous and therefore avoids the 14:53:51
well-understood disadvantages of continuous 14:53:57
shields, e.g., creation of a shock hazard from a 14:53:59
potential ground loops that act as an antenna. 14:54:04

Q Would you turn your attention to column 14:54:13
12, please? And can you focus on the paragraph -- 14:54:16

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

or strike that.

Can you focus on the first sentence of the paragraph beginning at line 28. 14:54:30 14:54:32

Do you see that sentence? 14:54:40

A Yes, I do. 14:54:46

Q And do you see it reads, quote: The electrically conducted patches or sections may also include a wide variety of suitable dimensions. For example, any suitable lengths in the longitudinal direction, any suitable gap lengths or spaces between adjacent patches and/or any suitable thicknesses, period. 14:54:48 14:54:50 14:54:53 14:54:56 14:54:58 14:55:01 14:55:04

A Yes, I see that language. 14:55:10

Q Okay. And there is -- strike that. 14:55:12

The phrase "any suitable lengths" doesn't include any limitations, correct? 14:55:15 14:55:19

A That is incorrect. 14:55:22

Q You're saying somewhere in the phrase "any suitable lengths" in the longitudinal direction, there is a limit? 14:55:23 14:55:26 14:55:28

A Well, the word "suitable" when read in conjunction with the following text, where he 14:55:34 14:55:37

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

says: As desired the dimensions can be selected to provide an electromagnetic shielding over a specific band of electromagnetic frequencies or above or below a designated frequency threshold. 14:55:41 14:55:44 14:55:48 14:55:52

Then he goes on to discuss the various lengths of patches. 14:55:56 14:55:59

And so, in the teachings of Cook, he's teaching very clearly that "suitable" includes dimensions that provide electrical magnetic shielding, and therefore exclude dimensions that wouldn't accomplish appropriate electromagnetic shielding, as well as the context of Cook read in the entirety, including McNutt and Smith, would indicate that "suitable" would not include creation of a continuous shield which would create -- would cause or would then result in the disadvantages such as a creation of a shock hazard or potential ground loops that act as an antenna. 14:56:00 14:56:03 14:56:07 14:56:11 14:56:15 14:56:18 14:56:22 14:56:26 14:56:30 14:56:33 14:56:38 14:56:42

Q And can you turn your attention to column 7, please. 14:56:47 14:56:55

A Yes. 14:57:04

Q Do you see the sentence beginning with 14:57:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

"for example," at column 7, line 11? 14:57:07

A Yes. 14:57:13

Q And do you see it says: For example, 14:57:13

electrically conducted material, e.g. a metallic 14:57:16

material, an alloy, et cetera, whether continuous 14:57:21

or comprising electrically conducted patches or 14:57:23

sections... 14:57:27

Do you see that? 14:57:32

A Yes, I do. 14:57:33

Q So, Cook here expressly discloses that 14:57:34

conductive material can be continuous, correct? 14:57:37

MR. SULLIVAN: Objection to form. 14:57:53

(Witness reviewing document.) 14:58:00

A Could you repeat the question, please? 15:00:12

Q So, Cook here expressly discloses that 15:00:14

conductive material can be continuous, correct? 15:00:17

MR. SULLIVAN: Objection to form. 15:00:21

A Cook discloses is an electrically conduct 15:00:28

the material, whether continuous or comprising 15:00:31

electrically conducted patches. Then also teaches 15:00:35

and -- teaches by incorporation of Cook and 15:00:40

McNutt -- excuse me, including by incorporation of 15:00:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

McNutt and Smith, that a discontinuous shield, as an entirety, would create disadvantages, including creation of a shock hazard, a potential ground loops that act as an antenna. 15:00:59 15:01:06 15:01:09 15:01:14

Q I'm only asking you about the plain language of Cook in column 7, okay? 15:01:24 15:01:27

A Okay. 15:01:34

Q And I understand your opinion might be that there is a disadvantage here, but Cook does expressly disclose that the conductive material can be continuous, correct? 15:01:35 15:01:37 15:01:42 15:01:46

MR. SULLIVAN: Objection to form. 15:01:51

A Cook teaches, for example, electrically conductive material, e.g., a metallic material, an alloy, et cetera, whether continuous or comprising electrically conducted patches or sections can be disclosed on a substrate or dielectric material. 15:02:08 15:02:11 15:02:18 15:02:19 15:02:20

Q Right. So, that's Cook disclosing two possibilities. Possibility number 1, continuous conductive material. Possibility number 2, electrically conductive patches or sections, right? 15:02:25 15:02:28 15:02:32 15:02:34 15:02:37

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Well, again, Cook teaches that electrically conductive material, e.g., a metallic material, an alloy, whether continuous or comprising electrically conductive patches or sections can be disclosed on a substrate or dielectric material. And that a POSITA reviewing the entirety of Cook, including McNutt and Smith 641, which are both incorporated by reference, would understand that a discontinuous shield in its entirety provides -- excuse me, that a continuous shield would not provide the appropriate electrical characteristics and could create shock hazards, as well as potential ground loops that act as an antenna. 15:02:39 15:02:44 15:02:50 15:02:52 15:02:55 15:02:57 15:03:03 15:03:06 15:03:11 15:03:16 15:03:20 15:03:24 15:03:26 15:03:31

Q And I want you to just aside for the moment what you think is the best configuration or the most desirable configuration or the optimal configuration and just focus on what does Cook expressly say you can do, even if you disagree whether you should do that, okay? 15:03:32 15:03:35 15:03:37 15:03:42 15:03:44 15:03:48

MR. SULLIVAN: Objection, form. 15:03:53

Q And so, in the teaching I showed you, Cook 15:03:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

is disclosing that the conductive material in shield 120 can be continuous? 15:03:59 15:04:06

A Well, as stated by Cook, whether it's continuous or comprising electrically conducted patches or sections. 15:04:19 15:04:21 15:04:23

(The court reporter asked for clarification.) 15:04:23

A I said, as described by Cook, whether continuous or comprising n electrically conducted patches or sections. 15:04:28 15:04:32 15:04:35

Q So, Cook is disclosing both of those possibilities, right? 15:04:37 15:04:40

A Yes, whether continuous or comprising electrically conducted patches or sections. 15:04:42 15:04:45

Q And I want you to take a look now, please, at column 12, again, please. 15:04:47 15:04:52

And do you see the sentence beginning at about line 22, with the word "additionally"? 15:05:03 15:05:08

A Yes, I do. 15:05:21

Q Okay. That's sentence reads, quote: Additionally, in certain embodiments, patches may stand fully across a width of a separating 110 or shield layer. 15:05:22 15:05:26 15:05:30 15:05:34

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Correct? 15:05:34

A That's what it says, yes. 15:05:36

Q And in the example where it spans fully across a width, the conductive material will extend to the lateral edge of the dielectric material, correct? 15:05:37 15:05:43 15:05:47 15:05:50

MR. SULLIVAN: Objection to form. 15:05:52

A Can you repeat the question, please? 15:06:10

Q Yeah. In the -- strike that. 15:06:13

When the conductive material spans fully across a width, the conductive material will extend to the lateral edge of the dielectric material, correct? 15:06:23 15:06:26 15:06:30 15:06:33

MR. SULLIVAN: Objection to form. 15:06:35

(Witness reviewing document.) 15:06:48

A He's referring to -- I'm going to ask you for a clarification, then I'll answer your question. 15:07:25 15:07:28 15:07:30

Are we referring to figure 1 and separator 110 of figure 1? 15:07:31 15:07:34

Q I think this teaching is referring to, if you look back at the bottom of column 11, it's 15:07:40 15:07:47

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

referring to both shield layer 120 and separator 110, which is why -- 15:07:51 15:07:54

(Indiscernible crosstalk.) 15:08:09

Q -- refers to a separator or a shield layer. 15:08:10 15:08:12

A I'm sorry, I lost my place. Which column were we in? 15:08:17 15:08:20

Q So we started in column 12, the teaching in 22. 15:08:23 15:08:26

A Yes, now I understand your question and you don't need to repeat it. 15:08:26 15:08:37

The patches span fully across the width of the separator or the shield and would reach the lateral edge, that's correct. 15:08:39 15:08:43 15:08:49

Q Okay. Can you now turn your attention to column 7, please. 15:08:52 15:08:56

A I'm in column 7. 15:09:13

Q And do you see the teaching beginning around line 18, that says, quote: In other embodiments, electrically conductive material may be sandwiched between multiple dielectric layers in order to form a shield? 15:09:14 15:09:20 15:09:26 15:09:28 15:09:33

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Yes, I do. 15:09:39

Q And in that example, the conductive 15:09:40

material would be contained between two layers of 15:09:59

dielectric material, correct? 15:10:01

A Could you repeat the question, please? 15:10:31

Q Yes. And in that example, the conductive 15:10:34

material would be contained between two layers of 15:10:37

dielectric material, correct? 15:10:40

(Witness reviewing document.) 15:11:22

A It's my understanding that Cook is 15:12:44

teaching that the electrically conducted materials 15:12:46

are patches and that they can be incorporated into 15:12:53

multiple dielectric layers to form a discontinuous 15:12:58

shield. 15:13:03

Q And did you see in the sentence that I 15:13:28

read there, it used the description "sandwiched 15:13:30

between"? 15:13:36

Do you see that? 15:13:37

A Yes, I do. 15:13:39

Q When electrically conductive material is 15:13:41

sandwiched between dielectric material, as taught 15:13:44

by Cook there, the result is that the conductive 15:13:51

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

material is contained between two layers of dielectric material, correct? 15:13:57 15:14:01

A Well, it would result in the conductive materials, the patches being incorporated, discontinuous patches being incorporated between two layers of dielectric material. 15:14:04 15:14:09 15:14:13 15:14:16

Q I think we might be on the same page, but I just want to confirm. So, I'm going to ask my question again, okay? 15:14:33 15:14:35 15:14:38

Where Cook is teaching that the electrically conductive material may be sandwiched between the dielectric layers, he is expressly teaching that the conductive material can be between two dielectric layers, correct? 15:14:41 15:14:53 15:14:57 15:15:02 15:15:08

A He is teaching that the electrically conductive patches incorporated into a shield may be used with a combination of materials. 15:15:26 15:15:39 15:15:43

Q So, in Cook's text, as we just reviewed, he expressly teaches that the shield can have each of the conductive material, quote, sandwiched between the dielectric layers, also spanning fully across the width, and also that it be continuous 15:15:49 15:15:54 15:15:59 15:16:04 15:16:08

for conductive patches, correct? 15:16:22

MR. SULLIVAN: Objection to form. 15:16:19

A Well, in the context of Cook read in its entirety, including McNutt and Smith, one would understand that the patches would form a relatively continuous shield that would avoid the disadvantages of an electrically continuous shield, those disadvantages including creation of a shock hazard or potential ground loops that act as an antenna. 15:16:24 15:16:28 15:16:32 15:16:38 15:16:43 15:16:47 15:16:51 15:16:55

Q Well, do you disagree that, per the quotes I just read you, Cook's text expressly teaches that the shield can have conductive material sandwiched between dielectric layers spanning fully across the width, and also that the conductive material can be continuous or conductive patches? 15:17:03 15:17:08 15:17:14 15:17:16 15:17:20 15:17:23 15:17:25

MR. SULLIVAN: Objection to form. 15:17:36

(Witness reviewing document.) 15:18:10

A It is my understanding that Cook is referring to construction of a shield with patches or relatively continuous patches, that could be 15:18:36 15:18:39 15:18:44

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

incorporated into multiple layers to create a discontinuous shield. 15:18:50 15:18:58

Q Would you look back at column 8, please. I'm sorry, I think it's farther on. 15:19:01 15:19:11

Could you look back at column 22. And if you look at the last paragraph and the first sentence that begins, quote: As desired, patches of electrically conductive material incorporated into a separator, a separator segment or a shield layer, may have a wide variety of different shapes and other orientations... 15:19:17 15:19:25 15:19:30 15:19:33 15:19:36 15:19:39 15:19:42

Do you see that? 15:19:45

A No, I'm sorry, which -- line are you at? I'm in column 22. 15:19:45 15:19:49

Q Yeah, it's the last paragraph at the bottom of page beginning "as desired"... 15:19:50 15:19:52

A Okay. I'm in that paragraph. Give me a second, please. 15:19:55 15:20:00

Q Sure. 15:20:01

A Okay. I see the paragraph running to the bottom of the column. Yes. I've read that. 15:20:05 15:20:07

Q Okay. What do you understand that "as 15:20:11

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

desired" refers to? 15:20:13

MR. SULLIVAN: Objection to form. 15:20:16

A Well, as desired -- hold on one second. I will answer directly. I don't need to hear the question again. 15:20:20 15:20:31 15:20:33

(Pause in the proceedings.) 15:21:31

(Witness reviewing document.) 15:21:40

A So, as desired with respect to the patches is, in my opinion, a clear reference to Cook's teachings whereby the size and spacing of the patches produce a particular frequency response, which he describes, for example, in column 14, as well, as... 15:23:28 15:23:33 15:23:36 15:23:43 15:23:48 15:23:59

Q Let me ask you a new question, okay? 15:24:29

A I didn't finish my answer to that. I would like to finish my answer. 15:24:32 15:24:35

(Indiscernible crosstalk.) 15:24:36

Q That's fine. I'll just withdraw my question. I'll ask you a new question. 15:24:36 15:24:39

So, looking at the "as desired," that's telling the reader that, among other things, any of the shapes or orientations in figures 8A and 15:24:41 15:24:45 15:24:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

8D, can be used as you desire for the shield layer, for example, shield layer 120, correct? 15:24:55 15:25:01

A I -- I will answer that question. I need one second. 15:25:07 15:25:14

Can I use a piece of paper to make a note. I don't have any paper here. I just need to mark down a citation where I can read them out loud to you and we can come back to you, if that's more to your liking. 15:25:27 15:25:29 15:25:33 15:25:36 15:25:39

Q Well, are they going to be responsive to my question? 15:25:39 15:25:43

(Indiscernible crosstalk.) 15:25:45

A Yes, they will. 15:25:45

Q Okay. Why don't you just read them out loud, then. 15:25:46 15:25:49

A I will. 15:25:50

Q Just the citation. You don't have to read the quote. 15:25:51 15:25:53

A First citation would be column 12, lines 34 through 48. 15:26:40 15:26:46

Column 14, lines 1 through 24. 15:27:15

And the "as desired" language indicates 15:27:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

not that a person -- a person of skill in the art would not understand the "as desired" language to indicate that one can willy-nilly pick the configurations of the patches, but consistent with the teachings of Cook and those cited sections, the patches are chosen in order to give the appropriate frequency response or not only dealing with inference and controlling both the emission of electromagnetic radiation and the isolation of external radiation -- isolation from external radiation, as well as producing the cumulative interactions or resonances described in the second citation I gave you, as well as conforming with the teachings of Cook, including McNutt and Smith, which are both incorporated by reference that indicate the desire to configure the patches to obtain a discontinuous shield that provides the appropriate characteristics for controlling inference while avoiding the well-understood disadvantages of continuous shield, e.g. creation of a shock hazard, potential ground loops that act as an antenna.

15:27:36
15:27:39
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15:29:01
15:29:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

So, it's my opinion in response to your questions that the "as desired" language is with reference to those sections and constrained by the teachings that a POSITA would understand based on those inceptions and the incorporation of McNutt and Smith. 15:29:05 15:29:08 15:29:12 15:29:15 15:29:18 15:29:21

MR. BULLARD: All right. Move to strike. Nonresponsive to the question asked. 15:29:23 15:29:25

MR. SULLIVAN: I just want to note for the record -- I want to note for the record that Dr. Eldering was simply finishing his answer to the previous question, which he was cut off before he got a chance to finish. 15:29:27 15:29:29 15:29:31 15:29:34 15:29:36

Q So, I want to ask you a question about slitting and slitting machines, okay? 15:29:40 15:29:43

So, the way a slitting machine works is it has knifes that cut through the material that it's trying to slit, correct? 15:29:46 15:29:49 15:29:52

A That is my understanding, yes. 15:29:55

Q And those knives can cut through plastic, they can cut through metal, correct? 15:29:56 15:29:59

A Well, I think that's a generalization, but 15:30:03

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

you wouldn't use knives that couldn't cut through the material that you were trying to separate. 15:30:05 15:30:08

Q And in the context of a slitting machine for a barrier tape, that means the knifes can cut through the plastic part of the barrier tape or the conductive part of the barrier tape, right? 15:30:12 15:30:18 15:30:20 15:30:23

A Well, again, you're asking this in the abstract, but you've painted a picture of a slitting machine, which one is trying to accomplish something on a sheet of material. So, I would, again, think that common sense would dictate that it would be designed with knives and appropriate force to cut through material entirely. 15:30:28 15:30:30 15:30:33 15:30:35 15:30:39 15:30:45 15:31:00 15:30:49

Q And in your declaration, you're not saying that a slitting machine physically doesn't work if you feed a sheet of tape through it where the conductive material is continuous, right? 15:30:56 15:31:02 15:31:05 15:31:10

MR. SULLIVAN: Objection to form. 15:31:16

A One second, please. 15:31:24

Could you ask the question, again, please? 15:32:19

Q In your declarations, you're not saying 15:32:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

that a slitting machine physically doesn't work if you feed a sheet of tape through it where the conductive material is continuous, right? 15:32:25 15:32:28 15:32:30

A I think it is the case that my declarations discusses Dr. Cornelison's statements that he -- regarding prior art references regarding the slitting process in which he admitted that those references were used for manufacturing tapes with discontinuous metallic layers where there is less of a of concern having exposed conductive edges. 15:33:24 15:33:25 15:33:33 15:33:36 15:33:38 15:33:42 15:33:45 15:33:48

Q And that's fine. My question is: You're not going nothing further and saying there is some technical reason, in your opinion, that you cannot operate a slitting machine on a tape where the conductive material in the tape is continuous, right? 15:33:57 15:33:59 15:34:01 15:34:04 15:34:11 15:34:13

A I will look through my declarations again, but I believe that my comments with respect to slitting process were the ones that I just read you in paragraph 116. But I'm glad to look through my declaration again. 15:34:18 15:34:20 15:34:25 15:34:28 15:34:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

(Witness reviewing document.) 15:36:04

A I believe that my only testimony with 15:36:07
respect to slitting machines is the paragraph 161 15:36:11
that I've referred to in part. 15:36:15

Q And in that paragraph, you don't take the 15:36:18
further position that for some reason you can't 15:36:20
operate a slitting machine on tapes containing 15:36:25
continuous conductive material, correct? 15:36:30

A No, I relied on Dr. Cornelison's 15:36:34
references and his discussion that he relied on 15:36:39
the references Smith 039 and Cook 794. And he 15:36:44
admitted those references are used for 15:36:51
manufacturing tapes with discontinuous metallic 15:36:53
layers where there is less of a concern of having 15:36:57
exposed conducted edges. Smith 039 shows slitting 15:36:58
three-layer tapes where the conductive layer is 15:37:06
discontinuous. 15:37:06

Q And let just make sure I get your 15:37:20
testimony on this. I don't want there to be a 15:37:23
double negative, okay? 15:37:25

So, just yes or no, did you provide an 15:37:27
opinion that a slitting machine can't operate on 15:37:31

tapes containing continuous conductive material? 15:37:39

A My opinions were limited to that of 15:37:47

paragraph 161. 15:37:50

Q And just to confirm, that paragraph 15:37:54

doesn't contain any opinion that a slitting 15:37:57

machine physically wouldn't work for continuous 15:38:00

conductive material, correct? 15:38:05

A It does contain the opinion that 15:38:08

Mr. Cornelison admitted that the references Smith 15:38:11

and Cook are used for manufacturing tapes with 15:38:14

discontinuous metallic layer where there's less of 15:38:18

a concern of having exposed conductive edges, but 15:38:21

I did not perform additional research with respect 15:38:24

to slitting machines. 15:38:28

Q And you don't have any actual specific 15:38:31

expertise with slitting machines, correct? 15:38:33

A My expertise in slitting machines is 15:38:37

related to the specifics -- specifics of this 15:38:44

proceeding. 15:38:47

Q So, outside this proceeding, you don't 15:38:48

have any actual specific expertise with slitting 15:38:51

machines, correct? 15:38:54

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A That is correct. 15:38:55
Q You have never worked with a slitting 15:38:56
machine before? 15:38:58
A Not this particular apparatus for slitting 15:39:00
this type of dielectric material -- excuse me, or 15:39:04
composite material. 15:39:08
Q And you haven't worked with any slitting 15:39:10
machine for any type of barrier tape, correct? 15:39:12
A I've worked with machines that separate 15:39:16
materials, but not particularly in the context of 15:39:20
barrier tapes. 15:39:23
Q And do you agree that, all other things 15:39:25
equal, reducing manufacturing complexity and cost 15:39:31
is an advantage that would motivate a POSITA? 15:39:36
MR. SULLIVAN: Objection to form. 15:39:46
A I'm sorry, was that in the context of 15:39:47
manufacturing anything under the sun? 15:39:50
Q That's in the context of manufacturing 15:39:52
cables as described in the '030 patent. 15:39:55
MR. SULLIVAN: Objection to form. 15:40:01
A Could you repeat the question, please? 15:40:06
Q Sure. Do you agree that all other things 15:40:09

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

equal, reducing manufacturing complexity and cost is an advantage that would motivate a POSITA working in the art at issue here involving cables? 15:40:12 15:40:16 15:40:21

MR. SULLIVAN: Objection to form. 15:40:29

A I guess you -- I don't understand the question. You have reduced it from anything under the sun to cables, and saying making things more cost-effective is good. So, I don't know specifically what aspect you're referring to. 15:40:30 15:40:32 15:40:37 15:40:39 15:40:42

Q Total straightforward question, yes or no, do you agree that, all other things equal, reducing manufacturing complexity and cost is an advantage that would motivate a POSITA working in the art at issue here, cables? 15:40:46 15:40:50 15:40:52 15:40:57 15:41:00

MR. SULLIVAN: Objection to form. 15:41:04

A I don't understand what -- I don't understand -- what motivates a POSITA to do what? So, you've not -- you've not indicated what the POSITA is supposedly motivated to do. I mean, reducing costs sounds wonderful. It sounds like you couldn't disagree with it, but you could impact -- you could easily impact the performance 15:41:05 15:41:09 15:41:12 15:41:14 15:41:17 15:41:20 15:41:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

parameters of -- of something where you're trying to reduce the cost. 15:41:27 15:41:30

So, if you would like to be more specific, I will give you a more specific answer. 15:41:31 15:41:33

Q Well, and I want you to make sure you appreciate that my question said all other things equal, okay? 15:41:35 15:41:37 15:41:41

So, all other things equal -- strike that. 15:41:43

Do you agree that, all other things equal, reducing manufacturing complexity and cost is an advantage in the art at issue here for cables? 15:41:47 15:41:49 15:41:54

MR. SULLIVAN: Objection to form. 15:42:00

A And I don't understand the question, but you've asked it three times. 15:42:18 15:42:16

All other -- all things equal, in the abstract, is reducing complexity good? Yes, but that doesn't -- I don't understand what aspect of cable construction you're referring to. So, I will give you that less complexity and lower cost is better, all things considered equal, with the understanding that I'm not tying that to any particular part of my testimony. 15:42:18 15:42:20 15:42:25 15:42:29 15:42:32 15:42:34 15:42:38 15:42:42

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. BULLARD: Okay. Let's take a short break. 15:42:44 15:42:47

THE VIDEOGRAPHER: Okay. Please stand by. We are going off the record. The time is 3:43 p.m. 15:42:48 15:42:52 15:42:55

(Off the record.) 15:42:56

THE VIDEOGRAPHER: We are back on the record. The time is 3:54 p.m. 15:53:54 15:54:06

BY MR. BULLARD: 15:54:10

Q And, Doctor, do you see the exhibit I put in the chat? 15:54:15 15:54:17

A Yes, I do. 15:54:19

Q Okay. So, this is figure 10A from the Glew prior art reference with the yellow and red arrow added, okay? 15:54:20 15:54:24 15:54:27

A I will take your word for it. 15:54:30

(Marked for identification Exhibit 3, 10A Glew prior art reference.) 15:54:40 15:54:41

Q Okay. And when you talk about the exposed edge of the barrier tape in Glew, you're talking about the edge that's pointed to by the red arrow, correct? 15:54:41 15:54:43 15:54:47 15:54:51

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 15:54:51

A Bear with me one second. Let me just look at Glew. 15:55:02 15:55:06

(Witness reviewing document.) 15:56:16

A With the understanding that that -- I don't see the -- I don't see that labeled, the shield labeled, but if you -- I think we're talking about the red arrow is pointing to an end of a shield, I think such a shield 378. Is that -- is that accurate? 15:56:16 15:56:18 15:56:26 15:56:32 15:56:37 15:56:42

Q I think the shield is 310. 15:56:44

A Okay. Thank you. Yes, okay, thank you. Hold on one second. 15:56:48 15:56:52

(Witness reviewing document.)

A Okay, I'm with you. I'm on board and I see a reference in -- in Glew to shield material 310 can be wrapped around the separator 300. 15:57:10 15:57:16 15:57:20

Q Okay. So, when you talk in your declaration about issues with an exposed edge of the barrier tape, you're talking about the edge pointed to by the red arrow for Glew's tape here, 310, right? 15:57:23 15:57:26 15:57:29 15:57:32 15:57:38

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 15:57:40

A One second, please. 15:57:43

(Witness reviewing document.)

A Could you ask your question, again, 15:58:29

please? 15:58:31

Q Yeah. In your declaration where you 15:58:31

discussed concerns about having exposed metallic 15:58:34

edges of the barrier tape, you're referring to the 15:58:39

edge that's identified with the red arrow in this 15:58:43

figure from Glew, right? 15:58:46

A I believe that's accurate, yes. 15:58:50

Q Okay. And that edge is comparatively many 15:58:52

times smaller than the size of the edge of the 15:59:01

separator shown there in yellow, correct? 15:59:06

MR. SULLIVAN: Objection to form. 15:59:10

A Well, I mean, that's a little inexact. To 15:59:15

me, you're -- I mean, the edge of that piece 300 15:59:19

in this embodiment, it's several times wider. I 15:59:25

don't know about many, but, yeah, it -- as 15:59:31

illustrated here, the filler -- that platform on 15:59:34

the top is significantly wider than the edge that 15:59:41

you pointed to with the red arrow. 15:59:47

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And, you know, give your best approximation for how much bigger the edges of the separator shown in yellow are compared to the edge shown with the red arrow for the barrier tape. 15:59:55 15:59:57 16:00:01 16:00:06

MR. SULLIVAN: Objection to form. 16:00:09

A I mean, just an estimate, and I also note I wouldn't rely on the patent figure to be representative of any particular dimensions. In fact, I -- it's my understanding you generally can't rely on them to be dimensionally accurate. But are you talking about that top piece being at least five to ten times wider in dimension than that edge? Maybe. 16:01:36 16:01:39 16:01:43 16:01:46 16:01:48 16:01:51 16:01:54 16:01:58

Q I'm not sure if you're -- you're understanding the correction -- I'm sorry, the question right. Or maybe I'm not asking it clearly. When I look at the size of the edge, just the edge, pointed to with the red arrow, okay? 16:02:00 16:02:02 16:02:05 16:02:08 16:02:14 16:02:17

And then I compare that to the edge of the separator inside the cable. It goes all the way around in that cross-shaped structure. 16:02:18 16:02:30 16:02:33

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

The edge of the separator looks, you know, two orders of magnitude, 100 times more significant than that edge at the top of the cable. 16:02:37 16:02:40 16:02:44 16:02:47

A Okay, Counsel, first of all, let's make sure we're talking about the same edges. You're talking about that top -- the yellow piece, the very top piece where the shield is laying against; is that accurate? 16:02:51 16:02:54 16:02:57 16:03:00 16:03:03

Q Well, I'm talking about two different edges, okay? There is the edge of the barrier tape then there's -- 16:03:04 16:03:06 16:03:08

A Yes. 16:03:08

(Indiscernible crosstalk.) 16:03:08

Q -- of the separator, okay? 16:03:08

So, you -- 16:03:09

(Indiscernible crosstalk.) 16:03:11

A -- edge of the separator. 16:03:12

(Indiscernible crosstalk.) 16:03:14

Q Yes, so just so we're on the same page, okay, the edge of the barrier tape is the comparatively tiny edge pointed to with the red 16:03:15 16:03:18 16:03:20

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

arrow at the top of the figure, right? 16:03:24

A Yes. 16:03:28

Q Okay. The edge of the separator is the 16:03:33

entire perimeter there of the separator. 16:03:49

Do you see that? 16:03:50

A I don't -- what -- what perimeter? I'm 16:03:54

zoomed in on this. So, there is T-shape -- the 16:03:58

top -- the arrow -- the arrow points -- the red 16:04:02

arrow points to the edge of the barrier. 16:04:05

The barrier is laying against -- not the 16:04:07

edge, but the -- the surface of the barrier is 16:04:10

laying on top of that T-shaped. And it's -- are 16:04:15

you talking about the top of that T-shape where 16:04:22

it's laying on there, the width of that in the 16:04:25

cross-section? 16:04:28

Q No. I'm talking about the entire edge of 16:04:29

the separator that's adjacent to the conductors. 16:04:33

A The separator -- wait, wait, I'm sorry. 16:04:48

So, the separator, the yellow separator, right? 16:04:50

Q Yep. 16:04:55

A Okay. So, the yellow separator has a 16:04:55

piece that comes up at 90 degrees at 12:00, right? 16:04:58

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

And then it's terminated by a -- I don't know what you want -- I'm going to call it cross beam. Cross beam at the top of the separators. 16:05:03 16:05:07 16:05:11

And a -- and that's -- you know, it's running horizontally across the page. 16:05:14 16:05:21

So, I see that the barrier is laying against the -- what I'm calling the cross beam that's running horizontally. And I think you're asking me about the width of the edge of the barrier tape, with respect to the width of that cross beam. 16:05:24 16:05:29 16:05:32 16:05:35 16:05:38 16:05:42

Q Let me clarify. You know, I apologize for the confusion here. I'm going to put Glew itself in the chat, okay? 16:05:44 16:05:47 16:05:51

A Okay. 16:05:54

Q Okay. So, when you open up Glew -- will you let me know when you have it open? 16:06:02 16:06:04

A I have Glew open. 16:06:29

Q Okay. Can you go to figure 8A, it's on page PDF page 6. 16:06:30 16:06:36

A I'm there. 16:06:38

Q Okay. Now, do you see in figure 8A, this 16:06:39

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

is showing another example of a separator in a cross-shaped just without the T shapes on the ends? 16:06:43 16:06:47 16:06:49

A Understood. 16:06:51

Q Okay. And you see that there is a numeral 100, and that there is a -- it's pointing to a little layer that it's traced all the way around the perimeter of the separator there. 16:06:52 16:06:56 16:07:00 16:07:03

A Understood. 16:07:09

Q Okay. And now, would you go to the specification of Glew, and go to paragraph 149. And do you see in paragraph 149, it's describing that the outer surface of the separator can be coated with electrically conductive material? 16:07:09 16:07:12 16:07:45 16:07:49 16:07:53

A Yes, I do. 16:07:58

Q And then if you look in paragraph 150, do you see that Glew is explaining that metal coating is at number 100, and it covers substantially the entire outer surface of that body portion 98. 16:07:59 16:08:03 16:08:08 16:08:13

A Yes, I do. 16:08:17

Q Okay. So, now would you go back to figure 8, okay? The -- and I want to do a comparison 16:08:19 16:08:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

with you, okay? 16:08:35

A Okay.

Q And I want to compare, on the one hand, 16:08:36

the amount of conductive material that is exposed 16:08:39

in that separator in figure 8A, to the amount of 16:08:45

conductive material that might be exposed in 16:08:51

figure 10A at that edge of the barrier tape, okay? 16:08:55

A Okay. 16:09:02

Q Okay. The amount of conductive material 16:09:02

that's exposed by the separator is multiple orders 16:09:06

of magnitude more than the amount exposed at the 16:09:11

edge of the barrier tape, right? 16:09:17

A I mean, they are two different -- I mean, 16:09:22

you're comparing apples and oranges, but if you're 16:09:25

saying that the filler are the oranges and there's 16:09:28

a lot of exposed metal, I mean, that was what we 16:09:31

just read was it was coated with metal. So, it's 16:09:34

exposed metal. It's a lot of metal, yeah. And 16:09:37

the edge is a small piece. 16:09:41

Q So Glew expressly contemplates that you 16:09:46

can have a large amount of exposed conductive 16:09:49

material inside the cable, for example, the entire 16:09:54

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

outer surface of the filler, correct? 16:09:59

MR. SULLIVAN: Objection to form. 16:10:04

A Could you repeat your question, please? 16:11:17

Q So, Glew expressly contemplates that you can have a large amount of exposed conductive material inside the cable, for example, substantially the entire outer surface of the filler, correct? 16:11:22 16:11:26 16:11:29 16:11:33 16:11:35

A Well, I think you need to -- the answer to your question is, in the context of paragraphs 149 and 150, Glew is teaching the use of conductive materials, including he says -- he says, in some cases, the metal portions cover at least about 30 percent or at least about 40 percent or at least about 50, 60 percent -- and goes on -- of the surface area of the separator. 16:11:36 16:11:38 16:11:42 16:11:51 16:11:57 16:12:00 16:12:03 16:12:06

So, and also, in the prior paragraph, he's talking about 3 micron and 12 micron thick coating, which is very thin. 16:12:08 16:12:12 16:12:16

So, I need to go back and -- I will be glad to answer -- if I have an answer to this question, to your satisfaction, I'll -- we'll go 16:12:18 16:12:21 16:12:24

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

back and read the rest of Glew. But that filler coating is a mechanism for absorbing electromagnetic radiation. It's not intended, at least what I'm seeing in 149 and 150, as a conductive coating -- 16:12:27 16:12:30 16:12:37 16:12:40 16:12:44

(Indiscernible crosstalk.)

A -- a continuous conductive coating. 16:12:45

Q You -- you don't disagree that Glew expressly describes that as being electrically conductive, correct? 16:12:47 16:12:51 16:12:54

A No, that's -- that's absolutely incorrect. It says can be coated. Can be coated with electrically conductive material to provide electromagnetic shielding. 16:12:57 16:13:02 16:13:05 16:13:09

Then it goes on to describe how you could even -- you can do that with small amounts, like 30 percent. 16:13:10 16:13:12 16:13:16

And then he goes on to say in some embodiments of the plurality of electrically -- electrically conductive inclusions can be distributed within the polymeric body portion 99. And this is order -- in order to create an 16:13:17 16:13:20 16:13:23 16:13:27 16:13:31

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

electromagnetic absorber. 16:13:33

Q Okay. Let's just go through this 16:13:35

sequentially. So, I'm talking about the 16:13:36

embodiment in Glew where there is a metal coating 16:13:39

that covers substantially the entire outer surface 16:13:47

of 98, okay? 16:13:52

Do you understand that? 16:13:56

A I understand what you said, yes. 16:13:57

Q Okay. And Glew expressly discloses that 16:14:00

example, correct? 16:14:05

A Say that again. 16:14:06

Q Glew expressly discloses that example. 16:14:07

A What Glew discloses is that the separator 16:14:19

can be coated with an electrically conductive 16:14:22

material, and then goes on to teach that it can be 16:14:25

thickness in the range of 3 microns to 12 microns. 16:14:28

He says: In some embodiments, the metal 16:14:33

coating has substantially uniform thickness. In 16:14:36

other embodiments, the thickness of the coating 16:14:39

can exhibit a variation. 16:14:41

Goes on to talk about a number of metals. 16:14:42

And then goes on to talk about having 16:14:44

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

portions. 16:14:46

So, that what I'm seeing Glew teaching is 16:14:47

that Glew is teaching you can put metal on the 16:14:50

filler, but I don't see it as teaching a 16:14:54

continuous coating, by any means. 16:14:57

Q Okay. And can you try to please just 16:14:59

listen to the question, okay? 16:15:02

So, the outer surface that's coated with 16:15:04

metal of the filler would be exposed to the 16:15:08

electrical conductor inside the cable, correct? 16:15:15

MR. SULLIVAN: Objection to form. 16:15:23

A Not exposed to the conductor. It's 16:15:24

exposed to the insulated wire. 16:15:28

Q Okay. So, it's exposed to the insulated 16:15:29

wires, correct? 16:15:32

A Yes. 16:15:34

Q So, Glew expressly contemplates you can 16:15:35

have electrically conductive material exposed to 16:15:38

the insulated conductors in the center of the 16:15:43

cable, correct? 16:15:46

A Now, what Glew teaches is you can have 16:15:47

patches of electrically conductive material or 16:15:49

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

embodied electric material act as a shield and as an absorber in the filler. Not teaching a continuous -- he's not teaching a continuous end-to-end conductor. 16:15:52 16:15:58 16:16:00 16:16:03

Q Okay. I -- my question didn't mention the word "continuous." Did you listen to my question? 16:16:05 16:16:08

MR. SULLIVAN: I think he did listen to your question. 16:16:13 16:16:14

Q Okay. So -- 16:16:14

MR. SULLIVAN: Snarky. We don't need snarky at this time of day. 16:16:25 16:16:27

MR. BULLARD: What we need is honesty. 16:16:29

Q So, you agree that Glew -- 16:16:30

(Indiscernible crosstalk.) 16:16:34

MR. SULLIVAN: -- once again -- on the record that counselor is insulting the witness, and we take offense to that. It's noted. Unacceptable. 16:16:34 16:16:36 16:16:40 16:16:44

MR. BULLARD: Okay. I disagree with your characterization. But let's just have the witness answer the question, please. And if you want to take a break and instruct your witness again to 16:16:45 16:16:47 16:16:50 16:16:53

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

answer the question, that's fine with me. 16:16:55

MR. SULLIVAN: He is answering your 16:16:57

questions. 16:16:59

MR. BULLARD: Okay. 16:16:59

Q So, Doctor, are you able to focus on my 16:17:00

question? 16:17:04

A Please ask your question. 16:17:04

Q Okay. So, Glew expressly contemplates 16:17:06

that the electrically -- electrically conductive 16:17:12

metallic surface of the filler can be exposed to 16:17:17

the insulated electrical conductors inside the 16:17:22

cable, correct? 16:17:26

MR. SULLIVAN: Object to form. 16:17:29

A What Glew teaches is that you can 16:17:30

metallize to provide electromagnetic shielding -- 16:17:33

you can metallize the separator to provide 16:17:36

electrically -- excuse me, to provide 16:17:42

electromagnetic shielding. 16:17:51

Q And that metallized surface is 16:17:51

electrically conductive and it's exposed to the 16:17:56

insulated electrical conductors in the center of 16:18:01

the cable, correct? 16:18:04

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A No. It says very clearly that it's coated with an electrically conductive material. And then it goes on to describe the thickness in 3 microns to 12 microns, which is very, very thin. And then it goes on to describe that you could -- metal portions can cover at least about 30 percent. 16:18:05 16:18:09 16:18:12 16:18:16 16:18:19 16:18:23 16:18:25

So, that does not make the separator itself conductive. But what it does is place conductive sections on the separator to form -- provide electromagnetic shield. 16:18:25 16:18:29 16:18:33 16:18:38

Q And all of those conductive sections you're referring to, Glew is contemplating can be exposed to the electrical conductors in the cable, correct? 16:18:40 16:18:42 16:18:46 16:18:50

A The metal portions, yes. The portions that he's talking about -- or he also describes plurality of electrically conducted inclusions distributed within the polymeric body portion, those probably would not be exposed. They would be within the polymer. But the ones that are placed on the surface wouldn't be exposed within 16:18:51 16:18:55 16:18:57 16:19:01 16:19:05 16:19:07 16:19:09

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the cable. 16:19:11

Q You put in some opinions about NEPTAPE, do you recall that? 16:19:11 16:19:25

A Yes, I do. 16:19:25

Q You've never worked with NEPTAPE before, have you? 16:19:27 16:19:30

A Hold on a second, I would like to refer to my... 16:19:31 16:19:35

(Witness reviewing document.)

A I don't know that I specifically have purchased NEPTAPE. I believe I've worked with cables that contain NEPTAPE or similar tape that have -- has foil-free edges. 16:20:20 16:20:21 16:20:24 16:20:31

Q Okay. But you don't actually have any specific recollection of working with NEPTAPE, right? 16:20:34 16:20:35 16:20:39

A I don't recall ordering any or purchasing any myself. 16:20:39 16:20:42

Q And you don't recall actually working with -- or strike that. 16:20:43 16:20:46

You don't have any specific recollection of working with NEPTAPE, correct? 16:20:47 16:20:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Again, as I stated, I have worked with a variety of cat 6 cables and cat 6A cables, including cables that I believe had foil-free edges such as those contained within the NEPTAPE. Although I can't tell you as I sit here that they were, in fact, that brand of tape. 16:20:54 16:20:57 16:21:03 16:21:06 16:21:08 16:21:13

Q So, you don't know that you have ever actually worked with NEPTAPE before, correct? 16:21:15 16:21:19

MR. SULLIVAN: Objection to form. 16:21:21

A I can't recall specifically working with NEPTAPE. 16:21:23 16:21:26

Q And you don't actually know for sure that you've ever worked with foil-free edge tape either? 16:21:27 16:21:30 16:21:35

A I believe I have worked with cables that contain foil-free tape, yes. 16:21:35 16:21:37

Q You just believe that, though, but you don't actually know that? 16:21:39 16:21:42

A I don't have something, I can't point to something in my CV, for example. 16:21:44 16:21:47

Q And you can't actually list out a specific example in this deposition, right? 16:21:49 16:21:52

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A That is correct, yes, I cannot, yes, I cannot. 16:21:54 16:21:57

Q And what would you identify in, you know, a concise one sentence your particular area of expertise? 16:21:57 16:22:03 16:22:07

MR. SULLIVAN: Objection to form. 16:22:09

A Could you repeat the question, please? 16:22:13

Q Please just give me a concise one sentence of your particular area of expertise. 16:22:17 16:22:19

MR. SULLIVAN: Objection to form. 16:22:23

A Well, in the context of this case, my area of expertise is the use of telecommunication -- the construction and design of telecommunication cables that have adequate electromagnetic shielding and give the desired performance, including those such as NEXT and FEXT where interference is a critical parameter. 16:22:26 16:22:29 16:22:41 16:22:43 16:22:48 16:22:54 16:22:57

Q I'm not asking you how you sort of presented your expertise in this case. I'm saying independent of this case, how do you present yourself to the public? What's your area of expertise you present? 16:23:02 16:23:04 16:23:08 16:23:10 16:23:13

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form. 16:23:15

A I'm going to refer to my CV. 16:23:16

Q Okay. And so, how do you present yourself to the public outside this case as far as what your area of expertise is? 16:23:25 16:23:27 16:23:29

MR. SULLIVAN: Object to form. He's trying to answer your question. 16:23:30 16:23:32

A And you would like one sentence, Counselor? 16:23:34 16:23:36

Q Yes. 16:23:37

MR. SULLIVAN: You can answer however you need to. 16:23:39 16:23:41

A Extensive technical and market expertise in the area of telecommunications, microelectronics, consumer electronics, targeted advertising -- 16:23:42 16:23:45 16:23:47 16:23:50

(The court reporter asked for clarification.) 16:23:50

THE WITNESS: Okay. I'll start again when you're ready. Signal when you're ready, please. 16:23:54 16:23:55

A Extensive technical and market expertise in the areas of telecommunications, microelectronics, consumer electronics targeted 16:23:59 16:24:03 16:24:06

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

advertisement, location-based services, data mining, and bioinformatics with over 30 years of industrial experience, period. 16:24:11 16:24:15 16:24:20

Q And you wrote that, correct? 16:24:22

A That is correct. 16:24:25

Q And outside this case, that's how you present yourself to the public as far as what your areas of expertise are, correct? 16:24:26 16:24:29 16:24:32

A That is correct. 16:24:33

Q And none of microelectronics, consumer electronics, targeted advertising, location-based services, data mining, or bioinformatics is the field of the invention in this case, correct? 16:24:35 16:24:40 16:24:43 16:24:48

A That's correct, but I note that you skipped over telecommunications. 16:24:52 16:24:55

Q Right. And the field of invention in this case is not telecommunications, in general, correct? 16:24:56 16:24:58 16:25:01

MR. SULLIVAN: Objection to form. 16:25:01

A I do not agree with that. 16:25:02

Q You believe the field of invention in this case is telecommunications, in general? 16:25:04 16:25:07

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection, form. 16:25:10

A Can you repeat the question, please? 16:25:19

Q You believe that the field of invention in this case is telecommunications, in general? 16:25:21 16:25:24

A The field of invention is communications cables and the control of electromagnetic interference, which is very much under the field of telecommunications and included and encompassed by the field of telecommunications. 16:25:58 16:26:02 16:26:06 16:26:10 16:26:13

Q And telecommunications is a huge general concept that covers everything from satellites to base stations to the air interface with modulation, to hour amplifiers, to cables, right? 16:26:16 16:26:20 16:26:24 16:26:28

MR. SULLIVAN: Objection to form. 16:26:36

A I don't understand the question. 16:26:37

Q Telecommunications is an incredibly general field that covers everything from satellites to base stations to power amplifiers to cables, right? 16:26:40 16:26:46 16:26:48 16:26:52

MR. SULLIVAN: Objection to form. 16:26:54

A I -- I don't view it as that. I view it as a -- I view it as the systems and methods for 16:26:55 16:26:58

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

communicating signals, typically electromagnetic. 16:27:06

Q How do you determine if a barrier tape or 16:27:16

other component in a cable has reduced 16:27:21

interference? 16:27:34

MR. SULLIVAN: Would you repeat the 16:27:34

question, please? 16:27:36

Q Sure. 16:27:40

A I can't answer the question. Can you 16:28:05

repeat it? I will answer it directly. 16:28:07

Q If you're able to answer the question 16:28:08

without me repeating it, feel free to go ahead. 16:28:10

A Sure. Crosstalk is measured via a number 16:28:14

of methods, including, for example, power sum, 16:28:20

alien near end crosstalk. It's a measure of 16:28:24

interference generated in a test cable by a number 16:28:27

of surrounding interfering disturbing cables, and 16:28:30

by, for example, crosstalk ratio, far-end ration 16:28:34

crosstalk signal attenuation ratio due to 16:28:39

resistance and impedance of the conductor pairs 16:28:39

and interference from surrounding disturbing 16:28:43

cables. As such, one can make specific 16:28:46

measurements to measure the actual level of 16:28:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

interference. 16:28:52

Q And were you reading from something there? 16:28:55

A I was reading from the '030 patent, but I was paraphrasing to encompass the general methods for measuring interference in cables. 16:28:57 16:29:02 16:29:06

Q Sure. 16:29:09

And if you have a filler and a barrier tape that reduces alien crosstalk, does that necessarily reduce internal crosstalk? 16:29:11 16:29:16 16:29:21

MR. SULLIVAN: I'm going to object to form. I'm not sure this -- I think this is going beyond the scope of his declarations in this case. Can you point to how this is relevant to his declarations? 16:29:24 16:29:26 16:29:31 16:29:34 16:29:38

MR. BULLARD: Well, the whole patent is about crosstalk. 16:29:40 16:29:42

MR. SULLIVAN: But what was your question? 16:29:43

Q Yes. I'm -- I'm asking if you have a filler or barrier tape that is configured to reduce alien crosstalk, will it necessarily reduce internal crosstalk? 16:29:45 16:29:49 16:29:54 16:29:59

A It may, yes. 16:30:02

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q And when you say "it may," meaning it might, it might not? 16:30:03 16:30:06

A It would depend on --

MR. SULLIVAN: Objection to form. 16:30:10

A It would depend on the specifics of the configuration of the cable and the barrier tape. 16:30:13 16:30:15

Q And if you want to know if the filler and the barrier reduce electromagnetic crosstalk, I assume you need to perform some sort of a comparison; is that right? 16:30:19 16:30:23 16:30:28 16:30:30

MR. SULLIVAN: Objection to form, beyond the scope. 16:30:32 16:30:34

A I don't understand the question. Comparison between what? 16:30:36 16:30:38

Q Well, that's my question. How do you know if a filler and a barrier portion reduce crosstalk? 16:30:39 16:30:43 16:30:46

MR. SULLIVAN: Objection to form, beyond the scope. 16:30:49 16:30:53

A You're asking an abstract question, but the answer would be I would apply the scientific method. So, I would control the variables and I 16:30:53 16:30:56 16:30:59

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

would make specific measurements under different configurations to attempt to determine which components were providing the desired characteristics and to what extent. 16:31:03 16:31:05 16:31:08 16:31:10

Q And would that involve necessarily doing some sort of comparison to see if the amount of crosstalk reduced? 16:31:12 16:31:15 16:31:18

MR. SULLIVAN: Objection to form. 16:31:23

A Again, I mean, these are -- I don't understand -- these appear to be outside the context of the patent and my declaration. And I'm still attempting to answer it. That is, you make a variety of measurements controlling the parameters to try to determine which components were providing the appropriate isolation, whether that be alien or from within the cable. 16:31:24 16:31:27 16:31:30 16:31:35 16:31:38 16:31:41 16:31:43 16:31:48

Q And what would be the parameters that you would have to control? 16:31:53 16:31:57

MR. SULLIVAN: Objection to form, beyond the scope. 16:32:00 16:32:02

A I mean, I would have to go back and -- and look at that design. I mean, it would appear to 16:32:03 16:32:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

me that you would have to create specific sets of tests with different embodiments of cables to get answers about the filler versus the shield. 16:32:10 16:32:13 16:32:17

MR. BULLARD: Okay, why don't we take a break? We're probably just about done here. 16:32:25 16:32:27

MR. SULLIVAN: Okay. Ten minutes? 16:32:32

MR. BULLARD: Sure. 16:32:33

THE VIDEOGRAPHER: Please stand by. We are going off the record. The time is 4:33 p.m. 16:32:35 16:32:37

(Off the record.) 16:32:43

THE VIDEOGRAPHER: We are back on the record. The time is 4:40 p.m. 16:40:08 16:40:09

BY MR. BULLARD: 16:40:13

Q Okay. I would like to go back for a minute to the annotated version of 13C from Glew. And you should see that in your chat as the second PDF, the one right after the link. 16:40:13 16:40:15 16:40:21 16:40:25

A You mean 10A, it's labeled 10A? 16:40:34

Q No, it's labeled Glew 13C, if you scroll up. 16:40:39 16:40:43

(Indiscernible crosstalk.) 16:41:06

MR. BULLARD: I can put it back in the 16:41:06

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

chat if you're having problems. 16:41:09

MR. SULLIVAN: Yeah, he's having trouble 16:41:09

scrolling, so if you can just add it again. 16:41:11

MR. BULLARD: Sure. All right. 16:41:14

Q And so, we don't need to remark it. It's 16:41:16

the -- it's the same thing. 16:41:18

A I got it. It just showed up again. 16:41:21

Q And just let me know, please, when you 16:41:25

have it open. 16:41:27

A Okay. I'm there. 16:41:33

Q So, you see, again, the annotated red edge 16:41:34

and the annotated yellow edge? 16:41:38

A Yes, I do. 16:41:41

Q Okay. And if the board determines that 16:41:42

the correct lateral edges are the -- you know, the 16:41:46

red edge there, and then the corresponding red 16:41:52

edge on the other side, in that situation, you 16:41:54

didn't offer any opinion that Glew fails to 16:41:58

anticipate, correct? 16:42:04

MR. SULLIVAN: Objection to form. 16:42:08

(Witness reviewing document.) 16:42:31

A Could you repeat the question, please? 16:42:36

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yes. If the board determines that the correct lateral edge is the red edge, not the yellow edge, then you didn't offer any opinion to contradict the conclusion that Glew anticipates, correct? 16:42:38 16:42:43 16:42:45 16:42:49 16:42:52

MR. SULLIVAN: Objection to form. 16:42:54

A Well, I think it would be fair to say that my analysis is based upon the understanding that the lateral edge is the yellow edge and the corresponding other edge, and that my opinions are based on that analysis. 16:42:59 16:43:02 16:43:05 16:43:09 16:43:12

Q And you didn't have some alternative analysis you presented explaining why Glew would not anticipate if the lateral edge were, in fact, the red edge, correct? 16:43:15 16:43:20 16:43:27 16:43:30

MR. SULLIVAN: Objection, form. 16:43:32

A I believe it is the case that my analysis is constrained to analysis with the lateral edge is defined as the yellow edges, and I do not the perform an analysis with respect to the lateral edges being defined as the red edge, so I don't have an opinion. 16:44:04 16:44:07 16:44:12 16:44:15 16:44:19 16:44:23

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Okay. Thank you. 16:44:24

And can you go now to the patent itself, 16:44:26

that would be the very first thing in the chat. 16:44:31

Maybe I should again put that back in the chat for 16:44:33

you, based on the problems we had before. 16:44:35

All right. There you go. 16:44:39

A I've got it, '030 patent. 16:45:00

Q Okay. Yeah. And if you could go to claim 16:45:02

1 at the end, please. 16:45:04

A Yes. 16:45:06

Q And do you see the first three elements of 16:45:06

claim 1 are a first twisted pair of insulated 16:45:14

conductor, a second twisted pair of insulated 16:45:19

conducts, and a filler, dot, dot, dot? 16:45:22

A Yes, I do. 16:45:25

Q And in your declarations in this 16:45:26

particular matter, you did not put in any opinion 16:45:29

disputing Roberts' disclosure of those first three 16:45:33

elements, correct? 16:45:40

MR. SULLIVAN: Objection to form. 16:45:41

(Witness reviewing document.) 16:46:21

A Could you repeat your question, please? 16:48:11

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yes. And in your declarations in this particular matter, you did not put in any opinion disputing Roberts' disclosure of those first three elements, correct? 16:48:14 16:48:19 16:48:22 16:48:27

MR. SULLIVAN: Objection to form. 16:48:28

A In this matter, my opinions, with respect to Roberts, were focused on Roberts not disclosing -- Roberts' metal armor shield 18 not disclosing a barrier tape with conductive material that extends to each lateral edge of two layers of dielectric material and surrounds the first and second twisted pairs of the insulated conductors and the filler. And as such, in addition to other arguments... 16:48:30 16:48:37 16:48:42 16:48:46 16:48:50 16:48:54 16:48:56 16:49:00

But to answer your question, I do not find, as I look through my report here, testimony regarding the first three elements of the claim which you referred to. 16:49:05 16:49:07 16:49:11 16:49:14

Q And, for Roberts, you emphasized that the foil 15 is described as being relatively thin, correct? 16:49:16 16:49:21 16:49:27

A I believe I -- hold on a second and I 16:49:30

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

will -- yes, hold on one second, please. 16:49:33

(Witness reviewing document.) 16:50:07

A It is the case that I refer to -- for 16:50:07

the -- for example, with respect to Roberts, I 16:50:11

refer to Roberts thin metal foil shield 15 and 16:50:19

that it would not have been obvious to use that 16:50:25

for the metal armor shield 18, which is designated 16:50:28

to be thicker than the foil shield to provide 16:50:31

mechanical protection. 16:50:35

Q Okay. And can you open up Roberts, 16:50:36

please. It should still be in your chat, as well. 16:50:39

If you don't have it, I can put it back. 16:50:43

A I have it. 16:50:45

Q Okay. Can you turn your attention to 16:50:45

column 4 at around line 58, please. 16:50:49

A Yes. 16:50:57

Q Okay. Do you see where it says: Foil 6 16:50:57

has a thickness between 1 and 5 millimeters, dot, 16:51:02

dot, dot? 16:51:06

A Yes. And it goes on to say: It is 16:51:06

generally twice the thickness of the plastic 16:51:09

coating. 16:51:12

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yeah, that's exactly right. 16:51:13

And then can you look up in that same 16:51:14

column, at around line 17 to 18. And do you see 16:51:16

where it says: This metal armor having a 16:51:26

thickness greater than a foil? 16:51:29

A Yes, I do. 16:51:32

Q Okay. So, the thickness of the metal 16:51:34

armor is greater than between 1 and 5 millimeters, 16:51:39

correct? 16:51:45

A The disclosure of Roberts is that the 16:51:54

thickness is greater than a foil. 16:51:57

Q Right. So, for example, it would be 16:52:00

greater than 5 milliliters, correct? Or I'm 16:52:02

sorry, 5 millimeters, correct? 16:52:06

A That's not 5 millimeters. It's 5 mill, I 16:52:09

believe, and -- hold on a second... 16:52:15

If the -- it's the foil 6 has a thickness 16:52:35

between 1 and 5 mills. The statement that is made 16:52:39

by Robert is that the mechanical shield is of a 16:52:43

thickness greater than a foil. 16:52:47

Q Right. So, for example, Roberts is 16:52:49

saying, hey, the thickness of the armor should be 16:52:52

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

greater than 5 mills, right? 16:52:56

MR. SULLIVAN: Objection to form. 16:53:00

A It should be -- excuse me. The -- the 16:53:01

metal armor have a thickness greater than a foil. 16:53:05

So, it should be thicker than a foil. 16:53:10

And then he gives an example of -- an 16:53:12

example of a foil -- an embodiment of a foil of 1 16:53:15

to 5 mills, which would imply that it's thicker -- 16:53:18

it's at least thicker than 5 mills. 16:53:23

Q Okay. And then can you turn back to the 16:53:25

chat and look at Exhibit 1013, which is the 16:53:29

Jachimowicz reference. 16:53:33

(The court reporter asked for clarification.) 16:53:57

A Yes, I have it. I'm opening it. I have 16:53:57

it. 16:54:01

Q Okay. And do you see -- if you go to 16:54:01

column 2, line 17, please. 16:54:06

A Yes. 16:54:10

Q Do you see it describes the shield in 16:54:11

Jachimowicz may, quote: For example, comprise an 16:54:15

8-mill thick aluminum strip dot, dot, dot? 16:54:18

A I'm sorry, are you in column 2? 16:54:24

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yes. 16:54:29
A Yes, I see that. 16:54:34
Q So, now I just want to do a comparison between Roberts' foil and Jachimowicz's shield, okay? 16:54:35 16:54:40 16:54:44
A Yes. 16:54:45
Q So, Jachimowicz's example of the 8-mill thick aluminum strip has a thickness greater than the foil that's 1 to 15 milliliters -- 1 to 5 mills in Roberts, correct? 16:54:46 16:54:50 16:54:56 16:55:03
MR. SULLIVAN: Objection to form. 16:55:04
A Well, that embodiment of an aluminum strip has a thickness that is greater than the foil described in that embodiment of Roberts, yes. 16:55:06 16:55:10 16:55:15
Q Okay. And then do you see in column 1, around line 45, it's talking about the shield again. And there is a sentence that reads: The strip is relatively thin. Typical thickness being in the range of 5 to 10 mills. 16:55:18 16:55:30 16:55:35 16:55:39 16:55:43
Do you see that? 16:55:46
A Yes, I do. 16:55:48
Q Okay. And you recall also the example 16:55:49

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

given we just reviewed where it was 8 mills? 16:55:52

A Yes, I do. 16:55:56

Q Okay. So, when Jachimowicz is talking about relatively thin, he's talking about a different range of thickness than Roberts is describing for the foil, right? 16:55:57 16:56:02 16:56:06 16:56:11

MR. SULLIVAN: Objection, form. 16:56:14

A Could you repeat the question, please? 16:56:16

Q Yeah. When Jachimowicz is talking about relatively thin, he's talking about a different range of thickness than Roberts is for Roberts foil 15? 16:56:19 16:56:29 16:56:35 16:56:39

A I think that's an accurate statement. I mean, the statement in Jachimowicz is that the strip is relatively thin, and he gives a range of 5 to 10. And Roberts still talks about... 16:56:42 16:56:45 16:56:50 16:56:53

Hold on, I'm going back to Roberts. 16:57:08

Q And the line we were talking about earlier in Roberts, if it's helpful is column 4, line -- about 59. 16:57:32 16:57:34 16:57:38

MR. SULLIVAN: Thank you. 16:57:41

A Roberts speaks of a foil with a thickness 16:57:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

between 1 and 5 mills. 16:57:52

Q So, "thin" has two different ranges when you compare Jachimowicz to Roberts? 16:58:01 16:58:06

MR. SULLIVAN: Objection to form. 16:58:14

A I would agree that the described foils are of different ranges, but could both be described as thin. 16:58:22 16:58:29 16:58:35

Q And would you look at figure 23 in Roberts. 16:58:37 16:58:39

A Yes, figure 23. 16:59:01

Q Great, thank you. 16:59:03

So, as the die plates 30 and 30A rotate, what happens to the shape of that filler 15? 16:59:04 16:59:12

MR. SULLIVAN: Objection, form. 16:59:20

(Witness reviewing document.) 16:59:50

A According to the description, there is twisting that occurs due to the rotation of die plate 30 and 30A. 17:00:30 17:00:32 17:00:36

Q And so what would the shape of 15 look like after that twisting occurs? 17:00:41 17:00:44

MR. SULLIVAN: Objection to form. 17:00:47

A It's my understanding that the element 15 17:00:57

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

would assume a somewhat -- excuse me. 17:01:08

(Witness reviewing document.) 17:01:42

MR. SULLIVAN: Object to form, scope. 17:01:53

A According to the spec, the twisting is not illustrated -- there may be some twisting involved with 15, but I can't tell you specifically the shape it would take. 17:02:03 17:02:06 17:02:09 17:02:12

Q Well, I mean, you're -- you've identified yourself as an expert in this case, right? 17:02:16 17:02:22

A Yes, that's correct. 17:02:24

Q So, just applying your expertise, what is your understanding of physically what's going to happen to the shape of 15 as those die plates turn? 17:02:25 17:02:28 17:02:31 17:02:36

MR. SULLIVAN: Objection to form, beyond the scope. 17:02:37 17:02:40

A Well, I would -- to be specific, there is some twisting and therefore composite forming taking place as elements 14, 15 and 16 exit from die plate 30A. 17:02:40 17:02:44 17:02:46 17:02:50

Q And what would the overall shape of 15 after the twisting look like? 17:02:52 17:02:55

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

MR. SULLIVAN: Objection to form, scope. 17:02:58

A It would be part of the twisted composite. 17:03:00

Q And would that be rectangular? Would that be spherical? Would that be helical? Would that be something else? What would the shape be? 17:03:04 17:03:08 17:03:12

MR. SULLIVAN: Objection to form, scope. 17:03:14

A Well, again, according to the spec, it forms a twisted composite form. It's not illustrated. 17:03:16 17:03:18 17:03:21

Q Right. And I'm asking you, though, drawing upon your expertise, to explain what the shape would look like. 17:03:22 17:03:24 17:03:27

MR. SULLIVAN: Objection, form, scope. 17:03:28

A I would have to go back and study that and see if I could give you a more accurate description, but it's pretty clear from the spec it's a twisted composite form. 17:03:31 17:03:36 17:03:38 17:03:40

Q Well, what happens to a rectangle when you twist it along its longitudinal central axis? What shape does it assume? 17:03:42 17:03:45 17:03:49

MR. SULLIVAN: Objection to form, scope. 17:03:51

A Could you repeat the question, please? 17:03:54

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q Yeah. When you twist a rectangular shape along its central longitudinal axis, what shape results? 17:03:56 17:04:02 17:04:08

MR. SULLIVAN: Object to form, scope. 17:04:11

A If you twist along that axis and the edges would rotate about the longitudinal axis. 17:04:17 17:04:21

Q And what shape would those edges form? 17:04:23

MR. SULLIVAN: Objection, form -- 17:04:27

A I don't know. 17:04:28

MR. SULLIVAN: -- scope. 17:04:29

Q The edges of a classic double helix follow the path of a rectangular shape as it's twisted about its longitudinal central axis, right? 17:04:46 17:04:56 17:05:04

MR. SULLIVAN: Objection to form. This is -- is this tied to something in his declaration? It's beyond the scope. He's -- he's told you he doesn't know. Is this tied to something in his declaration? 17:05:06 17:05:08 17:05:10 17:05:13 17:05:16

Q You can -- you can still go ahead and answer the question. 17:05:17 17:05:19

A I don't know. You're alleging it's a helix. I would have to go back and study that. I 17:05:20 17:05:23

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

don't know. 17:05:26

Q Well, I'm just asking you as a matter of 17:05:26

sort of physics, what happens to the shape? 17:05:28

MR. SULLIVAN: Objection to form. 17:05:33

A I mean, again, referring to 23, the 17:05:34

twisting is not shown. I would have to go back 17:05:36

and attempt to reconstruct that. It just said 17:05:39

forms a twisted composite. 17:05:43

Q Is a classic double helix an example of a 17:05:45

shape that has been twisted about its central 17:05:51

longitudinal axis? 17:05:56

MR. SULLIVAN: Objection to form, scope. 17:05:59

A Well, if you're referring to a double 17:06:02

helix, I mean, the most common example of a double 17:06:06

helix is -- is DNA. So, that's known as double 17:06:08

helix. 17:06:13

Q Right. And if you flattened out DNA, it 17:06:14

would -- it would assume a rectangular shape, 17:06:18

right? 17:06:20

MR. SULLIVAN: Objection to form. 17:06:20

A Could you repeat the question, please? 17:06:21

Q Yeah, if you flattened out DNA, if you 17:06:26

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

flattened out the double helix, it would assume a rectangular shape, right? 17:06:31 17:06:35

MR. SULLIVAN: Objection to form, scope. 17:06:36

A DNA is complex amino acids that are wrapped in a double helix. They don't really flatten out. 17:06:38 17:06:42 17:06:44

Q Let's see...

And can you turn your attention, then, back to Cook, please. 17:07:01 17:07:03

A Yes, I'm there. 17:07:13

Q And would you look at figure 7A and 7B, please. 17:07:14 17:07:18

A Yes, I'm there. 17:07:31

Q Okay. And do you see there's a conductive layer shown in black in both of 7A and 7B? 17:07:32 17:07:34

A Yes, I do. 17:07:38

Q The conductive layer has the same shape and spacing in 7A and 7B, right? 17:07:39 17:07:47

MR. SULLIVAN: Objection, form. 17:07:50

A Could you repeat the question, please? 17:07:54

Q Yeah. The conductive layer in 7A compared to 7B has the same shape and spacing? 17:07:57 17:08:01

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A They're pretty similar. I'm not sure they're exactly the same, but I would grant you that they are intended in the illustration to be similar, if not the same. 17:08:08 17:08:11 17:08:14 17:08:17

Q Okay. And -- and would you look at column 22, please. 17:08:35 17:08:52

A Yes, I'm there. 17:09:10

Q Yeah, do you see the teaching in column 22 that says -- this is around line 33: The electrically conductive layer 710 may include any number of patches of electrically conductive material and either to form either a continuous or discontinuous shield layer. 17:09:11 17:09:17 17:09:27 17:09:31 17:09:34 17:09:37

Do you see that? 17:09:39

A Yes, I do. 17:09:41

Q So, that's an example where Roberts is disclosing both possibilities, a continuous conductive layer or a discontinuous conductive layer, right? 17:09:43 17:09:46 17:09:50 17:09:54

MR. SULLIVAN: Objection to form. 17:09:54

A Could you repeat the question, please? 17:10:33

Q Yes. So, that's an example where Roberts 17:10:35

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

is disclosing both possibilities. Number one, a continuous conductive layer; or number two, a discontinuous conductive layer, right? 17:10:38 17:10:41 17:10:44

MR. SULLIVAN: Object to form. 17:10:46

A Are we referring to Roberts or Cook? 17:10:47

Q Good point. I mean to refer to Cook. So, let me ask my question again, okay? 17:10:51 17:10:54

So that's an example where Cook is disclosing both possibilities: Number 1, a continuous conductive layer; or number 2, is a discontinuous conductive layer, right? 17:10:56 17:10:59 17:11:02 17:11:06

MR. SULLIVAN: Objection to form. 17:11:09

(Witness reviewing document.) 17:14:50

A According to the figures 7A through C, 7A through C illustrate the use of patches. It's my understanding that Cook is teaching, in column 22, that you can use patches that contain continuous conductive material but result in a shield that is discontinuous from end to end, such that the teaching of Cook, such as a POSITA reviewing Cook, including McNutt and Smith, which are both incorporated by reference, would understand that 17:15:18 17:15:35 17:15:42 17:15:46 17:15:52 17:15:58 17:16:06 17:16:12 17:16:14

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

the shield, as illustrated by the patches in figure 7A through C, is discontinuous from end to end. 17:16:17 17:16:22 17:16:26

Q So, there's a difference, in your view, between a continuous shield and continuous conductive material? 17:16:28 17:16:31 17:16:36

MR. SULLIVAN: Objection to form. 17:16:39

A Could you repeat the question, please? 17:16:48

Q So, there is a difference, in your view, between a continuous shield and continuous conductive material? 17:16:50 17:16:52 17:16:54

MR. SULLIVAN: Objection to form. 17:16:56

A Well, a POSITA would understand that Cook teaches relatively continuous conductive material form a single layer of dielectric material, such as taught by Cook. 17:17:07 17:17:11 17:17:16 17:17:20

Q In your view, is there a difference, though, between a continuous shield and continuous conductive material? 17:17:25 17:17:28 17:17:30

MR. SULLIVAN: Objection to form. 17:17:33

A Could you repeat the question, please? 17:17:48

Q In your view, is there a difference 17:17:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

between a continuous shield and continuous conductive material? 17:17:52 17:17:54

(Witness reviewing document.) 17:18:20

A Well, it is my opinion that a conductive barrier tape is formed by using a continuous conductive material. 17:18:26 17:18:29 17:18:37

Q Just yes or no, is there a difference between a continuous shield and continuous conductive material? 17:18:45 17:18:48 17:18:51

MR. SULLIVAN: Objection to form. 17:18:53

A As taught by Cook, patches, such as patches 175, are combined with respect to physical separations to create an electrically discontinuous shield. 17:19:33 17:19:36 17:19:42 17:19:46

Q Again, just yes or no, is there a difference between a continuous shield and continuous conductive material? 17:19:55 17:19:59 17:20:00

MR. SULLIVAN: Objection to form. 17:20:06

A A continuous shield or conductive barrier tape can be formed from a continuous conductive material providing an electrical conductivity from end to end. 17:20:08 17:20:15 17:20:19 17:20:23

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q You testified earlier that your understanding of the teaching in Cook was that, quote, you can use patches that contain continuous conductive material but result in a shield that is discontinuous from end to end. 17:20:25 17:20:32 17:20:34 17:20:38 17:20:42

Do you recall that? 17:20:44

A Yes, I do. 17:20:47

MR. SULLIVAN: Objection, form. 17:20:47

Q So, let's look at figure 8D, for example. Is that an example of where you used patches that contain continuous conductive material, but, in your opinion, the overall shield is discontinuous from end to end? 17:20:49 17:20:56 17:21:00 17:21:02 17:21:05

MR. SULLIVAN: Objection to form. 17:21:07

A In figure 8D? 17:21:19

Q Correct. 17:21:22

A In figure 8D, there is a section that represented as conductive followed by a dielectric, a POSITA reviewing the entirety of Cook, including McNutt and Smith, which are both incorporated by reference, would not understand that the relatively continuous shield made with a 17:21:35 17:21:38 17:21:42 17:21:57 17:22:01 17:22:03

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

patch of conductive material, such as that in figure 8, was actually a continuous shield and they would be discouraged from making the relatively continuous shield shown in figure 8D a continuous shield. A POSITA would understand that the discontinuous shield provides the appropriate electrical characteristics for controlling interference while avoiding the well-understood disadvantages of continuous shields, e.g., creation of a shock hazard, potential ground loops that act as an antenna. 17:22:07 17:22:10 17:22:13 17:22:15 17:22:19 17:22:21 17:22:25 17:22:26 17:22:29 17:22:32 17:22:36

Q So, I'm trying to get at, in your view, is there a difference between whether or not the shield is continuous and whether or not the conductive material is continuous? 17:22:37 17:22:41 17:22:47 17:22:49

MR. SULLIVAN: Objection to form. 17:22:50

A Well, my understanding from Cook is that the patches are conductive material, so that those patches, such as the patch shown in 8D, the patch from one end of the patch to the other, can have electrical continuity. But that a POSITA reviewing the entirety of Cook, including McNutt 17:22:53 17:22:59 17:23:08 17:23:17 17:23:22 17:23:25

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

and Smith, 641, which are both incorporated by reference, would not understand that the relatively continuous shield made with a patch of conducted material was actually a continuous shield and would be discouraged from making the relatively continuous shield shown in figure 8D a continuous shield. 17:23:28 17:23:30 17:23:33 17:23:36 17:23:39 17:23:42 17:23:46

A POSITA would understand that the discontinuous shield provides the appropriate electrical characteristics for controlling interference while avoiding the well-understood disadvantages -- disadvantages of continuous shields, e.g., creation of a shock hazard, potential ground loops that act as an antenna. 17:23:47 17:23:49 17:23:51 17:23:54 17:23:59 17:23:59 17:24:03

Q Are your two declarations you submitted the complete statement of your opinions in this particular matter? 17:24:06 17:24:10 17:24:13

MR. SULLIVAN: Objection to form. 17:24:16

A Could you repeat the question, please? 17:24:22

Q Yeah, are your two declarations you submitted in this matter the complete statement of your opinions in this matter? 17:24:24 17:24:26 17:24:29

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A The testimony in these declarations is responsive to and complete to what I was asked to do in this matter. Although, again, I could -- it's my understanding I could be called on to provide additional testimony. 17:24:49 17:24:54 17:24:58 17:25:00 17:25:02

Q And would you look at the PDF I just put in the chat? 17:25:05 17:25:08

MR. SULLIVAN: Counsel, if this is going to go much longer, I'm going ask for a time check. I think we're running up against seven hours, so... 17:25:18 17:25:19 17:25:23 17:25:26

MR. BULLARD: Yeah. It's just this. I got, like, one question about this. 17:25:26 17:25:28

MR. SULLIVAN: Okay. 17:25:29

A/V TECHNICIAN: And, Counsel, are we labeling this exhibit? 17:25:31 17:25:32

MR. BULLARD: Yes, please. 17:25:34

A/V TECHNICIAN: Okay, this will be Exhibit 4. 17:25:35 17:25:37

MR. BULLARD: Thank you. 17:25:38

(Marked for identification Exhibit 4, PDF, elongated piece/rectangle.) 17:25:39 17:26:05

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

Q So, Doctor, does this shape show what happens when you twist a rectangle along its central longitudinal axis? 17:25:40 17:25:46 17:25:53

MR. SULLIVAN: Objection to form, scope, asked and answered. 17:25:55 17:25:58

A This -- to the extent that you're referring to this elongated piece as a rectangle, it would appear to be twisted along its longitudinal axis. 17:26:00 17:26:02 17:26:08 17:26:10

MR. BULLARD: Okay. I don't have any further questions. Do you have redirect? 17:26:16 17:26:18

MR. SULLIVAN: I just want to take a short break and see if I have any redirect. 17:26:21 17:26:24

MR. BULLARD: Totally understand. 17:26:26

THE VIDEOGRAPHER: Okay. We are going off the record. The time is 5:27 p.m. 17:26:29 17:26:31

(Off the record.) 17:26:33

THE VIDEOGRAPHER: We are back on the record. The time is 5:34 p.m. 17:33:58 17:34:00

EXAMINATION 17:34:07

BY MR. SULLIVAN: 17:34:07

Q Dr. Eldering, if you could turn to the 17:34:08

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

'030 patent, which is Exhibit 1001 in this proceeding. And specifically, if you could turn to the claims, and we're going look at claim 1. 17:34:11 17:34:15 17:34:18

A Yes, I'm there. 17:34:24

Q So, this morning, you spent a significant amount of time testifying about your understanding of what a continuous conductive material in the context of the claim, that is, quote, a multilayer conductive barrier tape comprising a continuous conductive material contained between two layers of a dielectric material. 17:34:25 17:34:29 17:34:33 17:34:39 17:34:44 17:34:48 17:34:51

Do you recall that? 17:34:53

A Yes, I do. 17:34:54

Q Just -- so, in order to meet that limitation, that is, a multilayer conductive barrier tape comprising a continuous conductive material, what -- what's required to meet that continuous conductive material in the context of that claim? 17:34:55 17:35:00 17:35:03 17:35:06 17:35:11 17:35:14

A In the context of that claim, you would need to have the continuous conductive material such that it provided conductivity for electrical 17:35:15 17:35:18 17:35:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

connectivity from one end of the barrier tape to the other. 17:35:30 17:35:33

Q Okay. If you could turn to the Cook reference, the '935 patent, which has been marked in this proceeding as CommScope Exhibit 1010. If you can specifically go to column 23. And the bottom column 23, starting at about line 58. 17:35:34 17:35:38 17:35:43 17:35:49 17:35:56

I'll read it into the record. It says: Figure 8D illustrates a top-level or bottom-level view of a fourth example separator segment 840 or shield layer. A separator segment 840 may include a relatively continuous patch of an electrically conductive material running along a longitudinal length of the separator 840. 17:36:04 17:36:07 17:36:14 17:36:20 17:36:25 17:36:29 17:36:33

Do you see that? 17:36:35

A I'm sorry. Could we -- can you tell me where you're reading from again? 17:36:36 17:36:41

Q 23. 17:36:41

A Okay.

Q Column 23, starting at 58. 17:36:42

A Got it. 17:36:50

Q Are you there? 17:36:50

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A Yes, I'm there. 17:36:52

Q And that portion that I read refers to a relatively continuous patch of electrically conducted material. 17:36:53 17:36:54 17:36:57

Do you see that? 17:36:59

A Yes, I do. 17:36:59

Q If we can now go to figure 8D, which we looked at during your testimony earlier, let me know when you're there. 17:37:00 17:37:08 17:37:11

A Yes, I'm there. 17:37:13

Q So, looking at 8D, and specifically the hatched portion, do you recognize that hatched portion as the relatively continuous patch of electrically conductive material? 17:37:14 17:37:20 17:37:24 17:37:28

A Yes, I do. 17:37:29

MR. BULLARD: Objection, form. 17:37:31

Q Now, we just looked at the claim 1 of the '030 patent and specifically your understanding of what a continuous conductive material would be. 17:37:33 17:37:40 17:37:42

Do you recall that? 17:37:45

A Yes, I do. 17:37:46

Q Applying that understanding from claim 1 17:37:48

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

of the '030 patent, is the relatively continuous patch of electrically conductive material shown in 8D, does that meet that claim element? 17:37:52 17:38:02 17:38:06

A It does not. 17:38:10

Q Why not? 17:38:11

A Because that patch in construction would not provide end-to-end electrical continuity or connectivity in the tape or shield. 17:38:13 17:38:17 17:38:25

MR. SULLIVAN: I don't have any further questions. 17:38:31 17:38:34

MR. BULLARD: Yeah, and I don't have anything either, so, we can -- we can be done. 17:38:37 17:38:39

MR. SULLIVAN: We can be done. 17:38:47

THE VIDEOGRAPHER: This will conclude today's deposition of Dr. Charles Eldering. We are going off the record. The time is 5:39 p.m. 17:38:48 17:38:50 17:38:53

(Deposition concluded at 5:39 p.m. EST 17:38:58
Signature of the witness was not requested.)

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

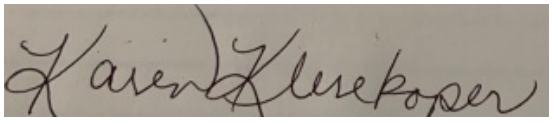
CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

I, Karen Klerekoper, Certified Reporter and Notary Public within and for the State of Michigan do hereby certify: That CHARLES ELDERING, PhD, the witness whose deposition is hereinbefore set forth, was duly sworn by me before the commencement of such deposition and that such deposition was taken before me and is a true record of the testimony given by such witness.

I further certify that the adverse party BELDEN, INC., was represented by counsel at the deposition.

I further certify that the deposition of CHARLES ELDERING, PhD, occurred virtually on Tuesday, May 21, 2024, commencing at 8:12 a.m. to 5:39 p.m.

IN WITNESS WHEREOF, I have hereunto set my had this 27th day of May, 2027.



_____

Karen Klerekoper

My commission expires:
10/7/24
County of Oakland
Notary public in and for the State of Michigan

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

A
ability
147:2
able
22:9, 54:2, 60:3, 65:15, 69:10, 69:21, 122:18, 135:1, 136:8, 137:5, 213:5, 221:10
above
22:15, 121:9, 136:3, 177:4
absolutely
8:16, 20:22, 23:12, 49:11, 55:18, 209:11
absorber
210:1, 212:2
absorbing
209:2
abstract
37:8, 95:20, 96:12, 101:12, 192:8, 198:16, 223:20
accessed
50:3, 58:10, 58:21
accessible
61:5, 61:7, 61:12, 61:15
accidentally
7:2
accomplish
177:11, 192:10
according
61:21, 79:9, 79:17, 119:15, 144:5, 235:16, 236:4, 237:7, 242:14
account
25:18, 104:17, 104:21, 105:3, 105:11, 105:19, 106:4
accurate
43:4, 72:10, 87:21, 88:3, 89:7, 90:12, 91:13, 91:21, 126:7, 138:1, 151:21, 159:6, 160:8, 200:10, 201:11, 202:10, 203:9, 234:13, 237:15
achieve
140:12
acids
240:4
acknowledge
91:6, 171:19
across
181:21, 182:4, 182:11, 183:12, 185:22, 186:15, 205:5
act
20:12, 60:16, 99:3, 172:14, 174:17, 175:20, 177:18, 179:4, 180:14, 186:9, 190:21, 212:1, 246:11, 247:14
acted
99:9, 99:17, 101:17, 103:5, 103:8, 103:16, 105:1
acting
101:9
acts
100:12, 100:18, 124:7
actual
90:7, 195:15, 195:21, 221:22
actually
10:14, 19:13, 85:15, 108:12, 172:5, 174:8, 215:14, 215:19, 216:8, 216:12, 216:18, 216:21, 246:2, 247:4
add
10:7, 10:10, 26:4, 226:3
added
10:21, 71:1, 199:15
adding
10:14, 78:6
addition
65:1, 71:9, 147:3, 229:13
additional
142:15, 159:9, 160:6, 195:13, 248:5
additionally
181:17, 181:20
address
157:6
addressed
6:20, 134:9, 147:14, 147:19, 148:3, 148:6, 148:18, 153:14
adequate
217:14
adhered
41:1, 147:11, 148:14, 150:6, 150:12, 151:12, 152:2, 152:11, 153:13, 154:5
adjacent
140:8, 141:4, 176:11, 204:17
adjective
28:16, 28:19, 28:20, 28:22
admitted
193:8, 194:12, 195:9
advantage
196:14, 197:2, 197:13, 198:11
adverse
254:12
advertisement
219:1
advertising
218:16, 219:11
advised
147:1
after
225:17, 235:20, 236:22
again
15:22, 16:10, 21:17, 26:2, 26:21, 31:4, 31:5, 31:12, 31:22, 33:18, 35:22, 36:17, 37:21, 41:9, 54:7, 76:20, 78:5, 80:19, 81:21, 85:11, 92:4, 92:9, 92:21, 94:5, 95:9, 97:8, 103:20, 112:19, 117:7, 128:21, 130:20, 131:4, 132:3, 144:9, 149:19, 150:8, 162:20, 171:19, 180:1, 181:15, 185:9, 188:5, 192:7, 192:11, 192:21, 193:18, 193:22, 201:4, 210:11, 212:15, 212:22, 216:1, 218:18, 224:9, 226:3, 226:7, 226:11, 228:4, 233:17, 237:7, 239:5, 242:7, 244:15, 248:3, 251:17
against
151:1, 203:8, 204:10, 205:7, 248:10
agent
19:13, 19:15,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

19:16, 19:21, 20:3, 20:4
ago
19:15
agree
18:22, 21:20, 26:7, 26:13, 37:17, 39:7, 40:7, 40:10, 40:20, 45:17, 47:15, 48:9, 68:5, 73:13, 82:11, 126:17, 141:19, 158:22, 165:10, 168:2, 168:5, 168:10, 168:22, 170:19, 171:2, 196:12, 196:22, 197:11, 198:9, 212:13, 219:20, 235:5
agreed
6:12, 151:14
agreement
28:14, 31:8
ahead
8:5, 31:21, 34:1, 42:7, 69:15, 105:18, 125:9, 160:20, 161:4, 221:11, 238:19
air
89:18, 89:21, 220:12
aircraft
89:15
alien
140:8, 140:13, 141:3, 221:14, 222:8, 222:20, 224:16
all
5:14, 6:5, 7:5, 9:15, 21:2, 33:17, 35:3, 45:9, 45:14, 45:19, 47:22, 48:6, 48:7, 48:13, 49:3, 49:13, 50:6, 50:15, 51:14, 52:9, 52:19, 53:3, 56:2, 56:13, 57:2, 57:11, 57:17, 58:5, 59:5, 60:7, 64:7, 64:15, 65:7, 65:17, 69:8, 73:20, 96:20, 97:7, 111:3, 121:15, 132:2, 134:2, 140:14, 145:6, 157:16, 164:5, 191:7, 196:12, 196:22, 197:11, 198:6, 198:8, 198:9, 198:15, 198:20, 202:21, 203:5, 206:7, 214:12, 226:4, 228:6
alleging
238:21
allow
53:9, 60:16, 61:3, 66:16
allowed
91:4
allows
50:21, 67:1, 74:8
alloy
178:5, 179:15, 180:3
along
60:12, 64:10, 64:18, 65:3, 80:13, 80:20, 81:6, 81:14, 81:21, 83:6, 84:1, 84:17, 86:13, 87:4, 88:10, 89:18, 90:2, 97:11, 98:1, 110:17, 163:20, 169:9, 173:17, 237:19, 238:2, 238:5, 249:2, 249:8, 251:13
alongside
90:20
already
21:16, 22:6, 77:15, 77:21, 78:15
also
3:17, 8:9, 20:14, 26:4, 43:7, 44:18, 72:3, 73:8, 73:11, 83:19, 84:13, 86:8, 87:22, 88:4, 89:8, 90:14, 95:16, 106:15, 110:3, 130:7, 138:14, 144:1, 144:3, 145:3, 149:7, 149:8, 158:19, 169:21, 170:3, 171:8, 171:21, 176:8, 178:20, 185:21, 185:22, 186:15, 202:6, 208:17, 214:17, 233:22
alternative
227:12
although
10:6, 83:16, 84:9, 86:5, 86:18, 152:15, 167:16, 216:5, 248:3
aluminum
49:22, 51:4, 53:16, 232:21, 233:8, 233:12
amino
240:4
among
188:21
amount
207:4, 207:5, 207:9, 207:11, 207:21, 208:5, 224:6, 250:6
amounts
209:16
amplifiers
220:13, 220:18
analogy
86:1, 86:19, 86:22, 90:6, 92:9, 92:13, 96:6
analysis
110:21, 227:8, 227:11, 227:13, 227:17, 227:18, 227:20
angle
18:8, 18:16, 19:4, 19:9, 66:13, 66:22
angled
122:18
annotated
70:1, 70:2, 71:16, 71:22, 73:2, 159:9, 161:1, 161:14, 161:16, 225:15, 226:11, 226:12
annotation
71:1, 122:1
another
27:8, 35:17, 37:16, 43:3, 70:5, 76:2, 108:11, 122:11, 122:16, 154:18, 159:12, 206:1
answer
23:21, 25:19, 31:5, 31:18, 35:16, 42:12, 47:8, 49:9, 52:4, 52:22, 59:16, 59:17,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

60:1, 60:2, 60:18, 88:15, 89:11, 93:6, 93:8, 94:4, 107:20, 107:22, 108:6, 111:5, 111:12, 121:19, 130:17, 133:6, 135:1, 136:8, 141:20, 142:4, 142:18, 143:17, 145:15, 146:7, 147:1, 148:2, 155:9, 157:20, 182:17, 188:4, 188:15, 188:16, 189:3, 191:11, 198:4, 208:9, 208:21, 212:21, 213:1, 218:7, 218:11, 221:8, 221:9, 221:10, 223:21, 224:12, 229:15, 238:20
answered
26:21, 37:20, 49:15, 50:8, 50:18, 52:12, 53:5, 56:4, 56:15, 57:5, 57:14, 57:20, 58:8, 59:10, 60:10, 60:21, 62:8, 75:18, 77:11, 83:22, 87:3, 112:12, 146:1, 153:18, 169:5, 249:5
answering
36:19, 59:18, 141:16, 143:1, 146:22, 213:2
answers
59:14, 146:5, 225:3
antenna
172:14, 174:17, 175:20, 177:18, 179:4, 180:14, 186:10, 190:22, 246:11, 247:14
anticipate
226:19, 227:14
anticipates
227:4
any
9:19, 10:13, 12:3, 22:2, 22:3, 23:18, 25:1, 25:5, 25:21, 26:19, 27:1, 27:9, 34:9, 39:5, 42:11, 66:13, 77:9, 93:20, 94:1, 103:9, 103:14, 103:17, 104:7, 104:12, 110:10, 111:19, 112:6, 112:7, 112:8, 112:15, 112:16, 113:14, 113:15, 114:1, 114:4, 120:21, 121:2, 122:20, 124:20, 130:13, 130:22, 131:6, 131:16, 132:5, 134:4, 134:19, 135:4, 135:18, 136:17, 139:3, 142:15, 155:16, 158:1, 176:9, 176:10, 176:12, 176:15, 176:16, 176:18, 188:21, 189:6, 195:5, 195:15, 195:21, 196:7, 196:8, 198:21, 202:8, 211:5, 215:14, 215:17, 215:18, 215:21, 226:18, 227:3, 228:17, 229:2, 241:10, 249:10, 249:13, 253:9
anymore
33:12, 34:17
anyone
19:19, 19:22
anything
7:11, 22:11, 35:10, 36:20, 38:1, 38:5, 97:2, 109:10, 109:15, 111:6, 132:9, 132:15, 196:17, 197:6, 253:12
anywhere
147:14, 148:3
apologies
21:14
apologize
205:12
apparatus
39:17, 196:4
appeal
1:3
appear
127:15, 163:19, 224:10, 224:22, 249:8
appears
163:14
apples
207:14
applicant
105:6
application
14:4, 14:10, 14:14, 15:11, 15:15, 18:8, 18:16, 19:4, 110:2, 112:2
applications
16:2
applied
25:9, 25:14, 25:16, 26:2, 28:21, 100:3, 103:3, 138:4
applies
26:9, 27:4
apply
100:6, 102:13, 102:18, 107:17, 223:21
applying
236:11, 252:22
appreciate
24:15, 34:3, 104:3, 198:6
appreciating
169:1
appropriate
86:4, 86:8, 143:5, 172:9, 174:12, 177:11, 180:12, 190:7, 190:18, 192:13, 224:15, 246:6, 247:9
approximation
202:2
area
208:16, 217:4, 217:9, 217:11, 217:21, 218:5, 218:14
areas
218:21, 219:8
aren't
21:21, 91:4
arguments
229:14
arise
166:20, 167:21, 168:7
arm
128:22, 138:11
around
14:22, 15:6, 15:19, 16:1, 16:5, 16:12, 90:9, 110:8, 119:21, 120:2, 120:9, 120:12, 121:15, 124:2, 124:7, 135:15, 136:16, 137:11, 183:19, 200:17,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

202:22, 206:7, 230:15, 231:3, 233:16, 241:9
arrangement
37:18, 37:21
arrive
110:20
arrow
199:15, 199:21, 200:8, 200:21, 201:9, 201:22, 202:4, 202:18, 204:1, 204:8, 204:9
arrows
159:1
art
4:20, 10:20, 27:11, 70:11, 81:9, 102:18, 104:20, 106:18, 109:9, 110:13, 112:4, 112:21, 113:22, 114:14, 118:16, 123:22, 131:20, 150:15, 152:13, 190:1, 193:6, 197:3, 197:14, 198:11, 199:14, 199:18
articulating
169:12
aside
180:15
asked
9:4, 26:20, 37:19, 40:6, 49:14, 50:7, 50:17, 51:21, 52:11, 53:4, 56:3, 56:14, 57:4, 57:13, 57:19, 58:7, 59:9, 59:12, 59:18, 60:9, 60:20, 62:7, 75:17, 83:21, 87:2, 96:19, 99:2, 112:11, 117:5, 125:17, 129:2, 132:11, 142:5, 142:6, 145:21, 153:17, 169:4, 181:6, 191:8, 198:14, 218:17, 232:13, 248:2, 249:5
asking
19:8, 27:19, 29:3, 37:3, 51:6, 52:1, 54:4, 67:17, 79:16, 79:17, 84:13, 88:6, 90:11, 91:7, 91:8, 92:3, 96:21, 97:3, 99:22, 125:6, 125:10, 147:17, 179:5, 192:7, 202:16, 205:9, 217:18, 222:18, 223:20, 237:10, 239:2
aspect
197:9, 198:17
assess
102:8, 133:20
assessing
102:18
assign
98:6, 98:7
assume
8:14, 35:10, 43:11, 44:2, 71:9, 92:3, 223:9, 236:1, 237:20, 239:18, 240:1
assuming
68:8
assumption
48:11
attached
4:12
attempt
69:6, 224:2, 239:7
attempting
224:12
attending
5:15
attention
66:8, 69:6, 157:18, 158:3, 162:4, 164:1, 165:15, 165:16, 171:10, 175:21, 177:19, 183:15, 230:14, 240:8
attentive
24:16
attenuation
221:18
attorney
7:16, 8:12, 21:14
attorneys
9:6
audio
13:5
available
7:19
avoid
74:6, 77:12, 166:17, 168:19, 169:15, 171:8, 175:9, 186:6
avoidance
83:17, 86:17
avoiding
172:11, 174:14, 190:19, 246:8, 247:11
avoids
175:17
aware
17:5, 17:11, 20:17
axis
237:19, 238:2, 238:5, 238:6, 238:13, 239:11, 249:3, 249:9

B

back
22:22, 23:20, 28:4, 29:16, 31:7, 31:9, 38:8, 44:14, 46:7, 66:5, 66:8, 67:4, 70:7, 70:17, 75:1, 85:12, 92:12, 92:20, 93:2, 115:4, 115:7, 117:8, 123:12, 143:11, 146:18, 147:6, 159:13, 161:8, 164:21, 182:22, 187:3, 187:5, 189:8, 199:7, 206:21, 208:20, 209:1, 224:21, 225:11, 225:14, 225:22, 228:4, 230:12, 232:10, 234:17, 237:14, 238:22, 239:6, 240:9, 249:18
background
164:16
ball
92:14
band
177:3
bar
19:15
barclay
3:12, 6:1
base
220:12, 220:18
based
26:4, 27:11, 48:10, 98:5, 101:5, 106:10, 107:1, 110:12, 110:20, 114:8, 120:4, 124:5, 136:12, 138:9, 143:20, 191:4, 227:8, 227:11, 228:5
basic
28:14, 127:14

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

basically
119:18, 119:20, 120:1
basis
104:15
beam
205:2, 205:3, 205:7, 205:11
bear
34:4, 74:2, 200:2
beautifully
158:7
because
21:16, 24:13, 36:21, 40:17, 62:3, 78:14, 89:14, 103:4, 114:19, 123:4, 133:4, 173:2, 253:6
become
96:10
been
6:14, 10:6, 12:6, 12:7, 12:18, 13:22, 14:2, 16:16, 18:20, 19:8, 19:10, 21:16, 55:14, 75:20, 107:20, 135:14, 136:15, 137:11, 230:6, 239:10, 251:4
before
1:3, 2:9, 12:18, 21:13, 42:9, 123:9, 124:22, 125:1, 139:6, 145:10, 145:14, 145:20, 153:20, 191:12, 196:3, 215:5, 216:8, 228:5, 254:8, 254:9
beginning
44:6, 64:21, 65:3, 76:6, 77:3, 77:4, 77:17, 78:8, 79:5, 110:7, 149:20, 176:3, 177:22, 181:16, 183:18, 187:16
begins
5:2, 187:7
behalf
3:3, 3:10, 20:1
behavior
142:11
being
19:21, 65:6, 74:6, 75:21, 80:22, 84:6, 87:9, 87:11, 87:22, 88:4, 89:8, 90:14, 91:15, 95:1, 96:12, 133:20, 145:2, 149:7, 152:20, 153:4, 173:8, 175:8, 185:4, 185:5, 202:11, 209:9, 227:21, 229:20, 233:18
belden
1:8, 5:5, 6:3, 8:7, 8:9, 254:13
belden's
17:7, 107:16
belief
121:5
believe
9:6, 12:7, 19:22, 20:9, 28:18, 31:12, 31:13, 43:4, 44:11, 44:13, 46:6, 56:1, 99:22, 107:6, 114:1, 114:4, 116:14, 118:2, 129:10, 129:16, 130:21, 134:7, 136:2, 138:1, 139:9, 151:11, 151:21, 153:11, 159:6, 160:8, 161:17, 171:6, 172:14, 193:19, 194:2, 201:11, 215:11, 216:3, 216:15, 216:17, 219:21, 220:3, 227:17, 229:22, 231:16
believed
103:4
below
72:3, 164:8, 177:4
benefits
166:9
best
9:19, 83:2, 147:2, 150:22, 180:16, 202:1
better
198:20
between
24:1, 24:8, 29:19, 31:2, 35:18, 36:13, 38:3, 46:16, 55:4, 56:19, 64:1, 67:11, 67:21, 68:19, 101:2, 102:3, 117:2, 118:5, 126:9, 127:2, 127:10, 127:20, 128:8, 129:6, 130:3, 136:22, 138:17, 140:8, 140:11, 141:3, 141:6, 152:6, 152:19, 153:3, 153:9, 159:7, 160:2, 160:3, 162:7, 166:21, 167:22, 168:9, 168:21, 169:16, 176:11, 183:21, 184:3, 184:7, 184:17, 184:21, 185:1, 185:5, 185:12, 185:14, 185:21, 186:14, 223:14, 230:18, 231:8, 231:18, 233:4, 235:1, 243:5, 243:10, 243:18, 244:1, 244:8, 244:16, 246:13, 250:10
beyond
68:13, 123:10, 222:12, 223:11, 223:18, 224:19, 236:15, 238:16
big
37:10
bigger
36:7, 36:14, 37:7, 37:15, 37:16, 202:2
binder
7:19, 8:13
bioinformatics
219:2, 219:12
biological
59:19
bit
18:12, 85:16
black
240:15
board
1:3, 143:2, 200:15, 226:14, 227:1
body
206:19, 209:21, 214:19
both
23:12, 47:10, 58:13, 61:13, 62:17, 63:2, 63:15, 124:5, 149:18, 151:3, 162:22, 163:3,

168:16, 170:14, 172:2, 174:5, 180:8, 181:10, 183:1, 190:8, 190:15, 235:6, 240:15, 241:17, 242:1, 242:9, 242:21, 245:20, 247:1
bottom
40:22, 43:18, 43:20, 59:7, 62:18, 63:3, 63:7, 63:8, 63:11, 71:10, 93:13, 93:15, 93:18, 94:7, 94:11, 94:15, 95:3, 95:5, 95:7, 95:11, 150:20, 151:6, 151:16, 151:18, 154:11, 156:8, 156:17, 157:4, 158:21, 165:17, 182:22, 187:16, 187:21, 251:7
bottom-level
251:9
brand
216:6
break
55:14, 55:16, 59:12, 59:13, 59:15, 59:19, 59:20, 62:10, 65:18, 65:19, 114:17, 114:19, 142:16, 143:4, 145:14, 145:21, 146:10, 146:11, 146:22, 199:2, 212:22, 225:5, 249:13
breaking
55:17
breaks
132:5
brief
32:8
brought
63:6, 139:6
bullard
3:4, 4:6, 5:18, 5:19, 6:17, 7:16, 7:21, 8:12, 8:14, 8:17, 21:5, 21:11, 21:14, 21:19, 22:4, 51:17, 51:20, 52:3, 55:18, 59:14, 59:22, 62:11, 65:17, 66:7, 69:8, 69:14, 69:16, 88:8, 111:3, 114:16, 114:21, 115:6, 130:18, 132:3, 132:20, 133:12, 140:14, 142:16, 143:13, 145:13, 145:17, 146:8, 146:14, 146:20, 147:20, 157:16, 157:21, 158:13, 158:19, 161:4, 161:10, 165:1, 191:7, 199:1, 199:9, 212:12, 212:19, 213:4, 222:15, 225:4, 225:7, 225:13, 225:22, 226:4, 248:12, 248:17, 248:20, 249:10, 249:14, 252:16, 253:11

C

cable
10:4, 10:6, 10:11, 10:14, 10:21, 11:6, 11:9, 11:11, 11:13, 11:16, 11:18, 12:5, 12:8, 12:17, 12:19, 13:2, 13:11, 13:12, 13:22, 14:21, 14:22, 15:1, 15:5, 15:7, 16:10, 16:14, 16:18, 16:20, 16:22, 17:2, 17:4, 17:18, 17:22, 18:2, 18:4, 18:7, 18:16, 19:4, 54:19, 110:4, 110:9, 110:16, 111:2, 119:9, 119:21, 120:2, 120:7, 120:9, 120:12, 120:14, 121:8, 121:16, 121:18, 123:10, 124:1, 124:3, 124:7, 124:9, 124:16, 124:17, 125:2, 130:9, 134:16, 135:9, 135:16, 135:17, 136:7, 138:13, 138:22, 154:7, 155:12, 159:9, 160:5, 160:10, 160:15, 160:22, 161:13, 166:20, 166:22, 167:21, 168:1, 168:8, 168:9, 168:21, 169:17, 198:18, 202:21, 203:4, 207:22, 208:6, 211:10, 211:20, 213:12, 213:22, 214:14, 215:1, 221:3, 221:15, 223:6, 224:16
cables
10:7, 12:11, 12:14, 13:16, 13:19, 14:5, 14:11, 14:15, 14:17, 15:12, 15:16, 15:20, 16:1, 16:6, 16:12, 16:16, 18:20, 123:17, 124:22, 140:8, 141:4, 196:19, 197:3, 197:7, 197:14, 198:11, 215:12, 216:2, 216:3, 216:15, 217:14, 220:6, 220:13, 220:19, 221:16, 221:21, 222:5, 225:2
call
7:3, 74:11, 76:5, 76:8, 76:9, 76:16, 77:19, 78:12, 86:8, 86:18, 94:6, 94:14, 94:20, 94:22, 95:3, 95:5, 95:13, 96:12, 96:19, 97:16, 98:8, 159:5, 160:3, 205:2
called
96:20, 248:4
calling
77:13, 205:7
can't
9:19, 12:2, 12:6, 14:7, 47:7, 88:13, 93:19, 94:11, 98:10, 125:1, 194:6, 194:22, 202:10, 216:5, 216:10, 216:19, 216:21, 221:8, 236:6
cannot
193:14, 217:1, 217:2

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

capture
68:15
cardboard
32:22, 33:5, 33:10, 33:13, 33:15, 34:2, 34:10, 34:16, 34:17, 34:20, 34:21, 35:5, 35:17, 35:18, 36:1, 36:2, 36:7, 36:13, 36:18, 37:4, 37:6, 37:10, 37:12, 37:15, 37:16, 38:4
care
141:21
career
20:2
carefully
31:5
carlson
3:5, 5:20
carranza
3:19, 5:12
cartography
82:19
case
1:11, 5:7, 7:18, 14:3, 14:8, 14:9, 14:13, 15:10, 15:14, 15:18, 16:4, 17:8, 18:13, 19:1, 23:17, 25:8, 25:13, 40:20, 48:10, 91:5, 91:13, 91:20, 92:8, 99:9, 99:17, 102:8, 121:22, 123:14, 193:4, 217:11, 217:19, 217:20, 218:4, 219:6, 219:13, 219:17, 219:22, 220:4, 222:12, 227:17, 230:3, 236:9
cases
208:13
caspers
3:5, 5:20
cat
216:2
category
16:19, 16:21
cause
177:16
caveat
20:14
center
159:8, 160:5, 160:7, 160:10, 160:15, 160:22, 161:13, 211:19, 213:21
central
237:19, 238:2, 238:13, 239:10, 249:3
certain
10:10, 90:5, 165:7, 181:20
certainly
11:17, 21:18, 96:1, 118:3, 133:2
certificate
254:1
certified
254:3
certify
254:5, 254:12, 254:15
cetera
178:5, 179:15
chance
191:13
change
33:16, 142:11
changed
126:22
characteristic
166:6
characteristics
14:17, 140:12, 166:5, 172:10, 174:13, 180:12, 190:18, 224:4, 246:7, 247:10
characterization
141:19, 141:22, 212:20
charge
145:17
charles
1:14, 2:1, 4:5, 5:4, 6:14, 253:15, 254:5, 254:16
chat
21:4, 22:14, 22:16, 69:6, 69:7, 70:5, 70:18, 115:19, 158:4, 161:19, 199:11, 205:14, 225:16, 226:1, 228:3, 228:4, 230:11, 232:11, 248:7
check
106:2, 159:13, 248:9
chosen
190:6
circumnavigating
89:12
circumscribes
124:16
circumscribing
120:18
circumstances
116:16, 117:13
citation
189:7, 189:17, 189:19, 190:13
cited
108:19, 149:3, 149:17, 149:22, 154:2, 190:5
city
6:2
claimed
101:22, 102:1, 118:5, 126:9, 127:2, 127:10, 127:19, 128:7, 128:22, 129:5, 130:3, 136:22, 138:16, 141:4
claims
20:17, 22:22, 23:21, 49:1, 50:4, 50:9, 66:12, 66:15, 98:19, 140:4, 140:20, 140:21, 250:3
clarification
117:5, 129:2, 181:6, 182:17, 218:17, 232:13
clarified
8:18
clarifies
145:8
clarify
24:13, 81:20, 205:12
clarity
94:22
classic
238:11, 239:9
clean
8:15
clear
73:19, 148:10, 188:9, 237:16
clearly
47:8, 90:18, 177:8, 202:17, 214:1
click
22:19, 23:3
close
55:14
coast
114:20
coated
150:18, 151:5,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

151:17, 156:7, 156:16, 157:3, 206:14, 207:17, 209:12, 210:14, 211:8, 214:1
coating
149:8, 150:19, 150:20, 151:15, 156:17, 157:1, 206:17, 208:19, 209:2, 209:5, 209:7, 210:4, 210:18, 210:19, 211:5, 230:22
coatings
151:3, 157:15
coaxial
18:1
coffee
67:8
colored
80:2, 82:8, 83:12, 84:4, 84:6, 84:20, 85:1, 87:7, 87:8, 97:16, 158:8
column
110:1, 110:3, 110:6, 110:7, 144:7, 144:15, 147:6, 154:3, 154:8, 159:17, 164:1, 164:2, 165:15, 171:11, 171:20, 175:21, 177:19, 178:1, 179:6, 181:15, 182:22, 183:6, 183:8, 183:16, 183:17, 187:3, 187:5, 187:14, 187:21, 188:12, 189:19, 189:21, 230:15, 231:3, 232:17, 232:22, 233:15, 234:19, 241:5, 241:8, 242:16, 251:6, 251:7, 251:20
columns
149:4
combination
185:17
combined
113:16, 244:12
come
31:7, 31:9, 189:8
comes
85:18, 96:7, 204:22
comfortable
9:15, 142:21
coming
55:11, 72:6, 74:5, 92:15
commencement
254:8
commencing
254:17
comment
21:13
commented
15:22
comments
134:7, 193:19
commercial
11:18
commission
254:27
common
78:20, 192:11, 239:14
commscope
1:5, 5:4, 5:20, 251:5
communicating
221:1
communications
220:5
company
8:22
comparatively
201:12, 203:22
compare
202:20, 207:3, 235:3
compared
30:15, 30:21, 162:15, 202:3, 240:21
comparing
207:14
comparison
206:22, 223:10, 223:14, 224:6, 233:3
complete
247:16, 247:21, 248:2
completely
96:18
completeness
70:4
complex
240:4
complexity
196:13, 197:1, 197:12, 198:10, 198:16, 198:19
complications
166:19, 167:21, 168:7
component
159:9, 221:3
components
15:7, 123:18, 123:19, 224:3, 224:14
composite
196:6, 236:18, 237:2, 237:8, 237:17, 239:8
comprise
57:21, 64:11, 125:21, 232:20
comprised
43:1, 117:16, 117:21, 126:19
comprises
30:2, 45:21, 49:17, 50:2, 61:22, 63:22
comprising
23:22, 24:8, 29:18, 46:15, 48:18, 49:7, 50:11, 53:8, 54:19, 55:3, 56:6, 65:13, 140:10, 178:6, 178:19, 179:15, 180:4, 181:4, 181:8, 181:12, 250:9, 250:16
concept
20:6, 20:9, 20:11, 99:3, 220:11
concern
193:10, 194:14, 195:12
concerned
105:13, 142:18
concerns
201:7
concise
217:4, 217:8
conclude
253:14
concluded
253:17
conclusion
227:4
conditional
171:14
conduct
64:11, 65:15, 117:15, 178:18
conducted
1:15, 2:2, 16:15, 23:22, 30:2, 138:16, 138:18, 141:7, 169:8, 172:5, 173:17, 174:8, 176:7, 178:4, 178:6, 178:20, 179:16, 181:4, 181:8, 181:13, 184:11, 194:15, 214:18, 247:4, 252:4

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

conducting
47:13, 55:5
conduction
61:3
conductivity
36:22, 59:1, 60:15, 166:8, 244:21, 250:22
conductor
30:1, 160:19, 211:10, 211:12, 212:4, 221:19, 228:13
conductors
11:13, 11:16, 18:7, 18:15, 54:20, 54:21, 54:22, 55:1, 55:9, 55:10, 159:8, 160:5, 160:7, 160:10, 160:15, 160:22, 161:13, 161:17, 204:17, 211:19, 213:11, 213:21, 214:14, 229:12
conducts
228:14
configuration
48:22, 49:22, 51:4, 53:16, 67:22, 153:15, 156:18, 157:2, 157:9, 165:7, 180:16, 180:17, 180:18, 223:6
configurations
150:2, 157:14, 169:13, 190:4, 224:2
configure
190:16
configured
222:19
confirm
25:3, 41:21, 62:14, 147:18, 159:14, 173:9, 185:8, 195:4
confirmation
133:13
conforming
190:13
confused
39:10, 40:5, 52:13, 81:13
confusing
76:20, 77:19, 78:11, 78:12, 96:11, 96:13
confusion
8:2, 77:12, 83:17, 86:17, 205:13
conjunction
148:9, 149:21, 175:5, 176:22
connect
61:16
connectivity
37:1, 163:15, 251:1, 253:8
consider
32:18, 35:14, 36:2, 37:6, 38:6, 44:3, 44:5, 82:4, 87:16, 95:16, 95:18, 96:9, 97:9
considered
11:2, 35:12, 36:4, 36:5, 36:12, 37:9, 44:4, 81:12, 82:9, 82:20, 83:9, 83:15, 84:4, 84:8, 92:18, 95:22, 98:4, 98:11, 98:14, 148:12, 152:14, 198:20
consistent
47:9, 73:17, 74:11, 81:5, 82:5, 85:10, 106:14, 106:16, 106:20, 108:10, 108:20, 113:19, 118:19, 135:17, 139:11, 151:22, 153:11, 167:17, 169:13, 171:21, 171:22, 190:4
constrained
191:3, 227:18
constraining
171:8
construct
15:7
constructed
123:18
construction
15:1, 15:5, 19:2, 23:18, 25:1, 25:6, 26:19, 54:8, 100:1, 102:13, 102:17, 103:21, 104:5, 104:10, 107:9, 107:17, 109:13, 109:19, 111:10, 113:9, 114:2, 114:5, 186:21, 198:18, 217:13, 253:6
constructions
27:2
construed
54:15, 54:17, 103:21
consult
8:1, 28:2, 31:13, 116:3
consumer
218:15, 218:22, 219:10
contain
195:5, 195:8, 215:12, 216:16, 242:17, 245:3, 245:11
contained
24:1, 24:8, 29:19, 31:2, 46:16, 55:4, 56:19, 64:1, 102:3, 117:2, 118:5, 126:9, 127:2, 127:10, 127:20, 128:7, 129:6, 130:3, 134:8, 136:22, 138:17, 140:10, 141:6, 152:6, 152:18, 153:2, 184:3, 184:7, 185:1, 216:4, 250:10
containing
163:1, 194:7, 195:1
contains
117:10
contemplate
151:2, 168:12
contemplates
207:20, 208:4, 211:17, 213:8
contemplating
214:13
contending
99:9, 99:16, 111:19, 120:20, 121:2
context
18:19, 25:17, 25:20, 26:3, 26:8, 26:22, 27:10, 27:12, 31:14, 32:2, 33:13, 36:20, 38:15, 38:20, 39:12, 41:2, 41:5, 42:22, 48:17, 49:16, 56:8, 57:7, 60:13, 64:3, 71:17, 76:4, 76:11, 76:21, 85:10, 87:9, 87:17, 88:6,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

90:16, 92:5, 96:4, 98:8, 98:14, 100:2, 101:12, 101:14, 101:22, 103:22, 104:16, 104:17, 105:4, 105:8, 109:6, 109:20, 114:11, 148:13, 152:15, 163:20, 170:11, 171:7, 177:12, 186:3, 192:3, 196:10, 196:16, 196:18, 208:10, 217:11, 224:11, 250:8, 250:18, 250:20
contexts
11:1
continue
33:20, 61:11
continuity
30:15, 30:20, 31:15, 31:16, 32:1, 32:3, 32:4, 38:5, 56:16, 56:18, 58:10, 64:4, 121:6, 131:10, 246:21, 253:7
contradict
227:4
contradiction
113:14
contradictory
95:11
contrary
20:16
control
15:11, 15:15, 18:6, 220:6, 223:22, 224:18
controlled
18:7, 18:14, 18:16, 19:3, 19:4
controlling
172:10, 174:13, 190:8, 190:18, 224:13, 246:7, 247:10
controls
108:15
convention
168:11
conventions
82:18
cook
4:19, 161:20, 162:2, 164:3, 165:9, 166:2, 166:15, 166:19, 167:1, 167:3, 167:18, 167:19, 168:2, 168:5, 168:16, 169:2, 169:6, 169:12, 169:19, 170:12, 170:13, 171:14, 171:22, 172:1, 172:15, 173:1, 173:6, 173:15, 174:4, 175:16, 177:7, 177:12, 178:10, 178:15, 178:18, 178:21, 179:6, 179:9, 179:13, 179:18, 180:1, 180:7, 180:18, 180:22, 181:3, 181:7, 181:10, 184:10, 184:22, 185:10, 186:3, 186:20, 190:5, 190:14, 194:11, 195:10, 240:9, 242:5, 242:6, 242:8, 242:16, 242:20, 243:13, 243:16, 244:11, 245:2, 245:20, 246:17, 246:22, 251:3
cook's
185:18, 186:12, 188:9
copies
7:12, 7:17, 8:15
copy
21:1, 22:9
core
130:10
cornelison
195:9
cornelison's
193:5, 194:9
correction
202:15
correctly
19:7, 31:18, 121:12
corresponding
75:12, 76:1, 76:2, 76:12, 79:7, 98:9, 226:16, 227:10
corresponds
107:2, 111:17
corrosion
150:18, 151:1
corrugated
120:18, 124:5, 124:15
corrugations
123:3
cost
196:13, 197:1, 197:12, 198:2, 198:10, 198:19
cost-effective
197:8
costs
197:20
couldn't
192:1, 197:21
counsel
5:16, 6:13, 6:19, 21:9, 21:22, 23:20, 25:5, 55:13, 65:20, 69:12, 117:6, 132:5, 142:17, 146:21, 147:1, 161:3, 203:5, 248:8, 248:15, 254:13
counselor
26:17, 27:20, 33:18, 42:4, 146:4, 212:16, 218:9
county
254:29
court
5:6, 6:8, 117:5, 129:2, 158:11, 181:6, 218:17, 232:13
courtesy
9:3
cover
208:13, 214:6
covered
47:13, 158:7
covers
206:18, 210:5, 220:11, 220:17
create
23:9, 50:20, 56:9, 56:20, 166:4, 177:16, 179:2, 180:13, 187:1, 209:22, 225:1, 244:13
created
11:17, 33:9
creates
50:21, 53:11, 175:5
creating
166:17, 168:19
creation
50:21, 172:12, 174:16, 175:19, 177:15, 177:17, 179:3, 186:8, 190:20, 246:10, 247:13
credibility
9:7, 133:21
critical
131:9, 217:17

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

cross
205:2, 205:3, 205:7, 205:11
cross-hatching
121:22
cross-section
121:18, 121:20, 122:7, 204:15
cross-sectional
157:12
cross-shaped
202:22, 206:2
crosstalk
51:22, 60:4, 94:18, 110:11, 116:1, 126:1, 140:8, 140:13, 141:3, 145:12, 145:16, 145:19, 145:22, 160:1, 183:3, 188:17, 189:12, 203:14, 203:17, 203:19, 209:6, 212:14, 221:12, 221:14, 221:17, 221:18, 222:8, 222:9, 222:16, 222:20, 222:21, 223:8, 223:17, 224:7, 225:21
crux
89:11
csr
1:22
cst
1:17
cumulative
190:11
currently
20:3
cut
12:18, 32:13, 35:10, 40:2, 123:4, 123:7, 191:12, 191:17, 191:20, 191:21, 192:1, 192:4, 192:13
cv
216:20, 218:2

D

damon
6:1
data
18:7, 18:15, 19:4, 219:1, 219:12
date
5:9
day
212:11, 254:21
daymon
3:12
dc
32:4
dealing
33:13, 36:17, 190:7
declaration
8:8, 8:10, 103:19, 115:15, 116:19, 122:13, 126:3, 126:7, 126:16, 128:2, 129:11, 130:1, 138:6, 139:11, 141:11, 141:13, 141:17, 147:4, 147:18, 153:22, 154:10, 155:10, 157:1, 158:2, 192:15, 193:22, 200:19, 201:6, 224:11, 238:16, 238:18
declarations
7:18, 21:2, 23:17, 24:22, 25:7, 99:16, 103:15, 125:4, 125:20, 129:17, 130:21, 147:15, 148:4, 153:15, 192:22, 193:5, 193:18, 222:12, 222:14, 228:16, 229:1, 247:15, 247:20, 248:1
define
92:10
defined
227:19, 227:21
definition
10:17, 20:13, 20:15, 25:22, 99:4, 99:10, 99:18, 100:11, 100:17, 100:19, 101:10, 101:18, 103:2, 103:4, 103:9, 103:16, 104:6, 104:12, 104:22, 105:12, 105:21, 106:7, 106:9, 108:14, 108:15, 109:3, 109:4, 112:8, 112:15
degree
151:1
degrees
90:4, 204:22
demands
109:13, 109:18, 111:9
demarking
94:10
denis
3:11, 5:22, 21:7, 114:16
depend
223:3, 223:5
depicted
172:19
depos
3:18, 3:19, 5:13, 6:9
deposit
39:17, 39:18
deposition
1:14, 2:1, 5:3, 5:14, 7:13, 69:17, 70:19, 70:22, 132:10, 132:15, 141:15, 142:19, 145:18, 216:22, 253:15, 253:17, 254:6, 254:8, 254:9, 254:14, 254:15
depositions
9:14
describe
42:13, 78:22, 83:3, 84:6, 87:21, 88:3, 90:13, 91:14, 91:22, 94:16, 120:16, 120:17, 149:15, 154:18, 170:7, 172:19, 209:15, 214:3, 214:5
described
34:7, 38:2, 47:8, 58:2, 82:7, 118:14, 118:20, 119:10, 124:4, 129:21, 130:7, 138:10, 149:2, 149:13, 154:1, 154:8, 164:8, 165:9, 175:16, 181:7, 190:12, 196:19, 229:20, 233:14, 235:5, 235:6
describes
49:5, 173:6, 175:4, 188:12, 209:9, 214:17, 232:19
describing
173:2, 206:12, 234:6
description
76:7, 82:5, 105:6, 120:4, 151:21, 164:14, 165:4, 184:16,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

235:16, 237:16
design
14:16, 16:16, 17:18, 18:4, 19:2, 19:9, 19:11, 48:20, 49:19, 51:2, 53:14, 217:13, 224:22
designated
177:4, 230:7
designed
9:22, 10:3, 10:5, 10:8, 11:5, 11:8, 11:10, 11:12, 11:15, 11:18, 14:19, 16:13, 16:19, 16:21, 17:1, 17:3, 39:18, 121:7, 192:12
desirability
167:3
desirable
68:14, 169:20, 180:17
desire
189:1, 190:16
desired
61:17, 165:18, 169:10, 173:19, 174:2, 177:1, 187:7, 187:16, 188:1, 188:3, 188:8, 188:20, 189:22, 190:2, 191:2, 217:15, 224:3
detail
164:8
determine
26:18, 103:14, 221:2, 224:2, 224:14
determined
77:22
determines
226:14, 227:1
diagram
72:10, 75:12, 85:18, 94:8, 98:12, 98:15
dialectic
64:2
dialogue
22:13
dictate
192:12
dictates
78:20
dictionary
27:22, 31:13
die
235:12, 235:17, 236:13, 236:20
dielectrics
40:17, 68:2
differed
113:9, 114:6
difference
162:7, 162:14, 243:4, 243:9, 243:17, 243:22, 244:7, 244:16, 246:13
differences
162:10
different
21:18, 30:5, 33:9, 40:2, 67:5, 79:16, 89:16, 89:19, 90:3, 98:18, 107:9, 108:8, 108:12, 109:1, 109:17, 111:8, 111:20, 112:9, 112:16, 130:12, 131:6, 131:16, 134:19, 139:3, 155:16, 157:2, 157:13, 157:14, 165:8, 165:9, 165:10, 165:13, 165:14, 187:10, 203:10, 207:13, 224:1, 225:2, 234:5, 234:10, 235:2, 235:6
difficult
40:14
dimension
122:8, 122:11, 122:16, 122:22, 202:12
dimensionally
202:10
dimensions
176:9, 177:1, 177:9, 177:10, 202:8
direct
66:8, 158:3, 165:16
directed
17:18, 18:3, 107:21, 140:9, 149:5, 157:21
direction
66:21, 72:13, 72:17, 72:20, 73:1, 73:21, 74:2, 74:4, 74:14, 78:1, 78:2, 78:4, 78:15, 78:16, 79:1, 79:2, 79:3, 79:9, 79:18, 79:20, 80:3, 80:6, 80:11, 80:14, 80:17, 80:21, 81:3, 81:11, 81:13, 81:15, 81:18, 81:22, 82:7, 82:9, 82:10, 82:21, 82:22, 83:8, 83:15, 83:16, 84:3, 84:8, 84:9, 84:19, 85:1, 85:4, 85:5, 86:15, 86:21, 87:5, 87:13, 89:8, 90:14, 90:18, 90:19, 90:21, 91:15, 92:1, 92:4, 92:6, 92:11, 96:5, 96:7, 97:12, 98:2, 106:19, 106:20, 106:22, 110:15, 110:16, 110:18, 110:19, 111:1, 111:2, 122:6, 176:10, 176:19
directions
81:7, 82:12, 82:16, 83:11
directly
93:8, 148:2, 188:4, 221:9
disadvantage
179:9
disadvantages
172:12, 174:15, 175:10, 175:18, 177:17, 179:2, 186:7, 186:8, 190:20, 246:9, 247:12
disagree
39:7, 94:21, 180:19, 186:11, 197:21, 209:8, 212:19
disclose
116:22, 118:4, 126:8, 126:22, 127:8, 127:18, 128:6, 128:17, 128:21, 129:4, 130:2, 134:10, 136:21, 138:15, 169:21, 179:10
disclosed
130:13, 131:7, 131:17, 131:22, 134:19, 136:2, 139:3, 155:17,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

179:17, 180:5
discloses
118:2, 170:2, 170:3, 178:10, 178:15, 178:18, 210:9, 210:12, 210:13
disclosing
179:18, 181:1, 181:10, 229:8, 229:9, 241:17, 242:1, 242:9
disclosure
107:1, 143:20, 144:16, 228:18, 229:3, 231:10
discontinuities
27:15, 37:14, 120:21, 121:3, 121:21, 122:6, 122:9, 122:21, 124:20, 135:4, 136:18, 163:6, 163:18, 163:20
discontinuity
121:16, 123:4, 129:11, 129:17, 130:22, 131:12, 135:19, 136:1, 137:7, 138:8
discontinuous
31:10, 31:14, 123:5, 162:13, 162:20, 163:12, 163:22, 164:7, 165:11, 166:5, 166:7, 166:10, 167:2, 172:9, 174:12, 179:1, 180:9, 184:13, 185:5, 187:2, 190:17, 193:9, 194:13, 194:17, 195:11, 241:13, 241:18, 242:3, 242:11, 242:19, 243:2, 244:14, 245:5, 245:12, 246:6, 247:9
discouraged
170:16, 172:6, 174:9, 246:3, 247:5
discuss
41:10, 110:6, 130:1, 144:19, 149:7, 177:5
discussed
46:6, 63:19, 110:3, 137:17, 137:21, 149:11, 201:7
discusses
193:5
discussing
76:21
discussion
32:9, 38:5, 75:19, 86:19, 98:18, 99:7, 110:12, 124:6, 156:9, 157:6, 194:10
dispute
116:18
disputing
228:18, 229:3
distinction
139:7
distributed
209:21, 214:19
disturbing
221:16, 221:20
dna
239:15, 239:17, 239:22, 240:4
doctor
6:21, 6:22, 7:3, 7:22, 8:20, 22:9, 60:2, 115:7, 140:16, 199:10, 213:5, 249:1
document
25:4, 31:20, 42:6, 75:3, 117:19, 129:14, 135:12, 139:21, 143:19, 148:21, 153:19, 155:2, 155:8, 156:20, 159:15, 163:9, 167:15, 172:21, 173:14, 178:13, 182:15, 184:9, 186:19, 188:7, 194:1, 200:4, 200:14, 201:3, 215:9, 226:21, 228:21, 230:2, 235:15, 236:2, 242:13, 244:3
documents
144:4
doing
224:5
done
35:3, 106:3, 225:5, 253:12, 253:13
dot
228:14, 230:18, 230:19, 232:21
double
144:19, 194:20, 238:11, 239:9, 239:13, 239:14, 239:15, 240:1, 240:5
down
74:1, 85:12, 85:17, 92:14, 93:11, 96:6, 122:10, 189:7
download
23:1
downloaded
115:20, 158:6
downloading
115:17
dr
5:4, 7:17, 8:7, 8:10, 133:9, 191:11, 193:5, 194:9, 249:22, 253:15
drawing
98:8, 237:11
driving
169:19
due
90:1, 221:18, 235:17
duly
6:14, 254:7
during
8:1, 252:8

E

each
24:3, 24:11, 29:21, 43:5, 44:20, 45:1, 45:6, 54:16, 55:6, 67:6, 71:14, 102:5, 118:7, 126:11, 127:12, 127:22, 128:9, 129:8, 130:5, 137:2, 138:19, 141:8, 163:22, 185:19, 229:10
earlier
15:22, 70:18, 99:2, 105:20, 106:5, 137:18, 137:21, 145:1, 148:19, 234:18, 245:1, 252:8
early
20:1
earth
88:11
easily
197:22
east
3:13, 89:22, 114:20
echo
41:15
either
16:11, 19:2,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

58:22, 61:6, 66:11, 67:12, 68:1, 68:21, 99:11, 99:18, 100:9, 100:16, 105:15, 122:22, 131:12, 147:15, 148:4, 150:6, 150:12, 151:12, 152:11, 153:13, 168:12, 216:14, 241:12, 253:12
eldering
1:14, 2:1, 4:5, 5:4, 6:14, 133:9, 191:11, 249:22, 253:15, 254:6, 254:16
eldering's
7:17, 8:7, 8:10
electric
212:1
electrical
32:3, 47:13, 57:8, 58:10, 58:22, 60:13, 60:15, 130:15, 131:9, 131:18, 134:21, 140:12, 144:1, 144:3, 144:11, 144:17, 145:3, 146:3, 147:9, 148:8, 149:8, 155:19, 159:8, 160:4, 163:15, 172:10, 174:13, 177:9, 180:12, 211:10, 213:11, 213:21, 214:14, 244:21, 246:7, 246:21, 247:10, 250:22, 253:7
electrically
48:18, 49:17, 50:2, 50:22, 53:11, 64:12, 166:21, 167:2, 167:22, 168:8, 168:20, 169:8, 169:16, 173:17, 175:8, 175:17, 176:7, 178:4, 178:6, 178:18, 178:20, 179:13, 179:16, 179:21, 180:2, 180:4, 181:4, 181:8, 181:13, 183:20, 184:11, 184:20, 185:11, 185:15, 186:7, 187:8, 206:14, 209:9, 209:13, 209:19, 209:20, 210:14, 211:18, 211:22, 213:9, 213:17, 213:20, 214:2, 214:18, 241:10, 241:11, 244:13, 251:12, 252:3, 252:14, 253:2
electricity
38:6, 61:3, 64:11, 65:15, 117:15
electromagnetic
48:19, 49:18, 50:22, 53:12, 56:10, 56:21, 58:1, 60:17, 64:12, 177:2, 177:3, 177:11, 190:9, 209:3, 209:14, 210:1, 213:15, 213:18, 214:11, 217:14, 220:6, 221:1, 223:8
electronic
7:12
electronics
218:15, 218:22, 219:11
element
29:17, 41:17, 63:1, 63:14, 128:18, 144:17, 235:22, 253:3
elements
140:5, 140:22, 157:11, 228:11, 228:19, 229:4, 229:17, 236:19
elongated
4:23, 42:15, 42:19, 42:21, 43:7, 43:11, 44:2, 137:17, 137:21, 138:3, 248:22, 249:7
else
6:21, 237:5
embodied
212:1
embodiment
39:3, 40:6, 41:9, 48:21, 49:20, 53:14, 161:15, 165:13, 171:9, 201:18, 210:4, 232:7, 233:12, 233:14
embodiments
170:10, 170:12, 171:15, 171:16, 181:20, 183:20, 209:19, 210:17, 210:19, 225:2
emi
18:8, 18:17, 19:5, 48:19, 49:18, 51:1, 53:12
emission
190:8
emphasize
94:22
emphasized
229:19
employment
8:20
empty
162:18, 162:22, 163:4
encased
166:20, 167:21, 168:8
encompass
222:4
encompassed
220:8
encounter
91:12, 91:21
encountered
42:16
end
44:6, 58:14, 58:22, 60:15, 61:4, 61:6, 62:2, 62:6, 63:17, 64:5, 64:21, 65:4, 65:6, 65:16, 76:5, 76:6, 76:14, 77:3, 77:5, 77:6, 77:13, 77:16, 77:17, 77:18, 78:8, 79:5, 79:6, 80:22, 81:1, 81:10, 82:4, 82:7, 83:13, 83:18, 84:7, 84:10, 84:11, 86:2, 86:6, 86:7, 86:16, 86:17, 87:9, 87:10, 87:11, 87:12, 95:21, 97:17, 97:18, 98:13, 163:15, 163:22, 165:18, 165:19, 166:4, 166:8, 166:12, 167:4, 167:7, 167:12, 167:16, 167:18, 168:3, 168:13, 168:14, 169:3, 169:11, 169:20, 169:22, 172:20,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

173:3, 173:8, 173:12, 173:20, 175:8, 175:13, 200:8, 221:14, 228:9, 242:19, 243:2, 243:3, 244:22, 245:5, 245:13, 246:20, 251:1
end-to-end
212:4, 253:7
ends
10:21, 44:4, 50:3, 58:11, 61:8, 61:13, 61:19, 76:3, 76:14, 78:8, 79:7, 97:15, 162:22, 163:3, 166:21, 168:1, 168:9, 168:17, 168:21, 169:16, 175:12, 206:3
energy
132:12
english
168:10, 170:19, 171:3
enhance
150:18
entire
147:18, 204:4, 204:16, 206:19, 207:22, 208:7, 210:5
entirely
192:14
entirety
52:2, 169:6, 170:13, 172:1, 172:16, 174:4, 177:13, 179:2, 180:7, 180:10, 186:4, 245:19, 246:22
environment
16:9
environmental
16:11
equal
196:13, 197:1, 197:11, 198:7, 198:8, 198:9, 198:15, 198:20
equipment
12:9
esquire
3:4, 3:11
essence
90:2
est
253:17
establish
28:13, 31:8
established
73:16, 78:3, 85:11
estimate
202:6
et
178:5, 179:15
even
180:19, 209:16
ever
124:10, 125:21, 127:15, 129:10, 129:16, 130:22, 138:6, 149:6, 216:7, 216:13
every
59:10, 125:1
everybody
5:18, 21:7, 69:9
everyone
6:4
everything
220:11, 220:17
ex
21:8
exact
32:20, 33:4, 34:6
exactly
93:14, 159:19, 231:1, 241:2
examination
4:6, 4:7, 6:16, 249:20
examined
12:16
example
41:1, 66:18, 74:2, 85:12, 100:17, 100:18, 101:7, 106:11, 109:22, 111:16, 113:17, 137:12, 151:4, 151:17, 152:4, 152:17, 153:1, 156:6, 156:15, 157:3, 159:16, 176:9, 178:1, 178:3, 179:13, 182:3, 184:2, 184:6, 188:12, 189:2, 206:1, 207:22, 208:6, 210:10, 210:12, 216:20, 216:22, 221:13, 221:17, 230:4, 231:12, 231:21, 232:6, 232:7, 232:20, 233:7, 233:22, 239:9, 239:14, 241:16, 241:22, 242:8, 245:9, 245:10, 251:10
examples
162:12, 164:6
exclude
177:10
excludes
139:14, 139:19, 140:3, 140:19
excuse
56:17, 77:6, 79:5, 110:3, 144:8, 144:14, 151:10, 154:4, 155:18, 156:4, 162:20, 163:14, 178:22, 180:10, 196:5, 213:17, 232:3, 236:1
exhibit
4:10, 4:13, 4:15, 4:16, 4:18, 4:19, 4:20, 4:21, 4:23, 8:7, 8:9, 21:10, 21:16, 22:1, 22:3, 22:5, 22:6, 22:10, 69:13, 69:17, 69:20, 70:5, 70:19, 70:22, 115:18, 115:21, 158:4, 158:14, 158:15, 158:16, 159:2, 161:20, 162:1, 199:10, 199:17, 210:20, 232:11, 248:16, 248:19, 248:21, 250:1, 251:5
exhibited
40:21
exhibits
4:12, 21:21, 22:3
exit
236:19
expect
117:14
experience
7:8, 12:10, 12:13, 15:19, 16:4, 18:5, 18:14, 21:15, 26:5, 123:17, 219:3
expert
26:18, 107:16, 123:13, 236:9
expertise
19:2, 27:1, 27:13, 109:8, 195:16, 195:17, 195:21, 217:5, 217:9, 217:12,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

217:19, 217:22, 218:5, 218:13, 218:20, 219:8, 236:11, 237:11
expires
254:27
explain
10:16, 237:11
explained
149:12, 153:20, 153:21
explaining
206:17, 227:13
exposed
18:21, 160:9, 160:14, 160:19, 193:11, 194:15, 195:12, 199:19, 200:19, 201:7, 207:4, 207:6, 207:10, 207:11, 207:16, 207:18, 207:21, 208:5, 211:9, 211:12, 211:13, 211:14, 211:18, 213:10, 213:20, 214:14, 214:20, 214:22
exposure
20:8
express
145:3
expressly
178:10, 178:15, 179:10, 180:19, 185:12, 185:19, 186:12, 207:20, 208:4, 209:9, 210:9, 210:12, 211:17, 213:8
extend
45:9, 45:14, 45:16, 45:19, 47:19, 48:12, 49:2, 49:12, 50:5, 50:10, 50:15, 50:20, 51:14, 52:9, 52:19, 53:2, 56:2, 56:13, 57:2, 57:11, 57:17, 58:5, 58:18, 59:5, 60:7, 61:1, 61:8, 62:1, 62:5, 62:17, 63:2, 63:15, 63:21, 64:4, 64:7, 64:14, 64:20, 65:3, 65:7, 65:11, 67:13, 68:1, 68:7, 68:13, 173:11, 182:5, 182:12
extending
24:3, 24:10, 29:21, 44:20, 45:6, 47:21, 48:4, 48:6, 49:6, 55:6, 58:13, 65:4, 67:5
extends
45:1, 47:16, 53:2, 61:19, 68:16, 68:21, 68:22, 69:1, 102:5, 117:4, 118:7, 123:10, 126:11, 127:4, 127:12, 128:9, 129:7, 130:5, 137:2, 138:18, 141:7, 229:10
extensive
98:17, 218:13, 218:20
extent
34:15, 224:4, 249:6
external
190:10

F

fabric
75:4
facilities
12:7
fact
64:3, 85:15, 105:3, 108:13, 109:2, 142:5, 172:19, 173:10, 175:12, 202:9, 216:6, 227:14
facts
91:5
factually
81:2, 85:7, 86:9
fails
128:17, 226:18
fair
169:18, 227:7
fall
85:20, 92:16, 92:17
familiar
20:6, 20:9, 20:11, 32:5
fan
92:13
far
18:2, 85:20, 87:10, 98:18, 218:4, 219:7
far-end
221:17
farther
187:4
feature
171:16, 171:17, 174:22
feed
192:17, 193:2
feel
7:22, 93:5, 116:4, 221:11
few
139:8, 164:6
fext
217:16
field
22:14, 85:15, 85:16, 85:20, 86:4, 92:17, 96:6, 219:13, 219:16, 219:21, 220:3, 220:5, 220:7, 220:9, 220:17
fields
19:18
figure
4:15, 4:18, 41:13, 41:14, 41:16, 69:7, 69:21, 69:22, 70:1, 70:13, 70:16, 70:18, 70:22, 72:21, 73:2, 73:7, 73:10, 77:8, 79:8, 82:2, 83:9, 83:12, 84:4, 84:21, 92:20, 93:2, 93:10, 97:11, 106:12, 106:13, 107:3, 121:9, 121:10, 121:17, 123:8, 136:3, 156:18, 158:7, 158:8, 158:17, 158:18, 158:21, 165:8, 168:17, 170:18, 172:7, 173:2, 173:7, 174:10, 182:19, 182:20, 199:13, 201:10, 202:7, 204:1, 205:19, 205:22, 206:21, 207:5, 207:7, 235:8, 235:10, 240:11, 243:2, 245:9, 245:15, 245:17, 246:2, 246:4, 247:6, 251:9, 252:7
figures
106:14, 118:13,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

122:10, 122:12, 122:14, 124:6, 156:10, 157:10, 162:5, 162:21, 164:9, 165:6, 188:22, 242:14
filler
11:8, 11:10, 18:6, 18:14, 19:3, 54:21, 55:10, 201:20, 207:15, 208:1, 208:8, 209:1, 211:4, 211:9, 212:2, 213:10, 222:7, 222:19, 223:7, 223:16, 225:3, 228:14, 229:13, 235:13
film
39:14, 39:15
final
26:18, 83:2
find
88:17, 113:2, 116:14, 229:16
fine
6:22, 7:4, 7:21, 21:19, 21:21, 23:2, 33:18, 62:11, 65:20, 114:21, 127:6, 146:14, 188:18, 193:12, 213:1
finish
55:19, 146:5, 146:7, 188:15, 188:16, 191:13
finishing
191:11
firm
5:21, 6:1
firmly
147:10, 148:14, 150:5, 150:11, 151:12, 152:2, 152:11, 154:5
first
28:3, 54:19, 54:22, 55:8, 76:5, 76:14, 77:5, 77:16, 79:6, 80:22, 81:9, 82:4, 83:13, 83:18, 84:7, 84:10, 84:11, 85:2, 86:6, 86:16, 87:9, 97:17, 98:13, 115:15, 126:15, 129:22, 153:22, 162:10, 176:2, 187:6, 189:19, 203:5, 228:3, 228:11, 228:12, 228:18, 229:3, 229:11, 229:17
five
202:12
fixed
15:11
flat
88:11
flat-earther
88:18, 89:15
flatten
240:6
flattened
239:17, 239:22, 240:1
flying
89:15
focus
53:21, 71:3, 101:8, 125:3, 138:2, 175:22, 176:2, 180:18, 213:5
focused
229:7
focusing
74:19, 75:6, 77:9, 92:21, 93:2, 163:5, 163:17
foil
50:1, 51:5, 53:17, 68:10, 130:14, 131:17, 134:16, 134:20, 136:14, 137:10, 138:22, 154:13, 154:22, 155:6, 155:12, 155:13, 155:18, 156:1, 156:3, 156:5, 157:12, 229:20, 230:5, 230:8, 230:17, 231:5, 231:11, 231:17, 231:20, 232:4, 232:5, 232:7, 233:4, 233:9, 233:13, 234:6, 234:12, 234:22
foil-free
215:13, 216:3, 216:13, 216:16
foils
235:5
folded
135:14, 136:15, 137:11
folder
23:9
follow
89:19, 238:11
followed
166:4, 245:18
following
78:10, 176:22
follows
6:15
football
74:3, 85:15, 85:16, 85:20, 86:3, 92:13, 96:5, 96:6
footer
22:5
force
192:13
forgotten
159:22
formed
114:8, 163:13, 244:5, 244:20
forming
236:18
forms
237:8, 239:8
forth
254:7
four
39:5, 40:8, 40:12, 40:21, 43:14, 43:21, 44:8, 45:9, 45:14, 45:19, 47:22, 48:7, 48:13, 49:3, 49:13, 50:6, 50:15, 51:14, 52:9, 52:19, 53:3, 56:2, 56:13, 57:2, 57:11, 57:18, 58:5, 59:5, 60:7, 64:7, 64:15, 65:7, 71:6
fourth
29:17, 251:10
free
7:22, 116:4, 221:11
frequencies
177:3
frequency
177:4, 188:11, 190:7
front
28:1, 29:4, 29:7
fully
90:22, 181:21, 182:3, 182:10, 183:12, 185:21, 186:15
function
57:6, 148:15,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

154:19
further
105:9, 193:13, 194:6, 249:11, 253:9, 254:12, 254:15

G

gap
176:10
gaps
163:22
gave
40:15, 40:18, 59:10, 190:13
general
85:6, 87:16, 87:20, 88:2, 88:22, 89:1, 89:3, 89:6, 90:11, 91:20, 219:17, 219:22, 220:4, 220:10, 220:17, 222:4
generalization
191:22
generalize
125:1
generally
82:20, 202:9, 230:21
generated
221:15
geometry
67:19, 85:11
getting
55:13, 89:12, 114:19, 154:20, 155:4, 161:22
give
9:19, 92:2, 115:7, 144:6, 158:6, 187:17, 190:6, 198:4, 198:19, 202:1, 217:8, 217:15, 237:15
given
101:3, 113:3, 114:12, 234:1, 254:10
gives
19:21, 100:19, 105:8, 232:6, 234:15
glad
111:15, 131:4, 132:21, 193:21, 208:21
glew
4:15, 4:20, 69:9, 70:10, 70:22, 71:17, 72:21, 82:2, 83:9, 84:21, 199:14, 199:18, 199:20, 200:3, 200:16, 201:10, 205:13, 205:16, 205:18, 206:11, 206:17, 207:20, 208:4, 208:11, 209:1, 209:8, 210:4, 210:9, 210:12, 210:13, 211:2, 211:3, 211:17, 211:21, 212:13, 213:8, 213:14, 214:13, 225:15, 225:19, 226:18, 227:4, 227:13
glew's
71:22, 200:21
globe
88:10, 88:14, 89:13, 90:9
glued
34:16, 34:18
gluing
34:22
go
8:5, 13:8, 22:22, 23:20, 24:5, 29:16, 31:21, 34:1, 38:8, 42:7, 44:14, 46:7, 59:15, 65:20, 67:4, 69:15, 70:7, 70:13, 78:6, 78:21, 89:21, 89:22, 90:3, 92:12, 105:17, 114:22, 122:13, 125:9, 139:5, 146:11, 147:6, 159:13, 159:14, 160:20, 161:2, 161:4, 205:19, 206:10, 206:11, 206:21, 208:20, 208:22, 210:2, 221:11, 224:21, 225:14, 228:2, 228:6, 228:8, 232:16, 237:14, 238:19, 238:22, 239:6, 248:9, 251:6, 252:7
goal
74:4, 86:2, 86:3
goes
9:17, 96:16, 96:21, 97:4, 97:21, 110:6, 144:13, 144:19, 173:19, 177:5, 202:21, 208:15, 209:15, 209:18, 210:15, 210:21, 210:22, 214:3, 214:5, 230:20
going
8:3, 8:13, 9:14, 17:7, 23:9, 24:5, 31:17, 37:3, 42:13, 43:14, 55:14, 59:20, 59:22, 60:1, 66:2, 69:6, 69:16, 70:18, 74:5, 78:20, 79:9, 79:19, 85:12, 85:19, 89:17, 89:20, 89:21, 92:4, 92:11, 92:16, 93:6, 94:8, 96:10, 98:6, 98:7, 107:13, 107:14, 107:15, 107:19, 114:17, 115:1, 115:8, 116:2, 124:2, 142:19, 143:2, 143:8, 146:4, 146:13, 146:15, 147:20, 158:11, 159:13, 161:5, 164:18, 182:16, 185:8, 189:10, 193:13, 199:4, 205:2, 205:13, 218:2, 222:10, 222:11, 225:9, 234:17, 236:12, 248:8, 248:9, 249:15, 250:3, 253:16
gone
92:18
good
5:18, 5:22, 6:18, 55:16, 76:7, 93:10, 114:18, 134:1, 197:8, 198:16, 242:6
governed
103:2
governs
26:14
grammar
28:14
grammatical
31:8
grant
241:2
great
7:21, 8:14,

84:12, 105:17, 126:17, 133:12, 147:5, 235:11
greater
136:14, 137:10, 155:13, 164:8, 231:5, 231:8, 231:11, 231:13, 231:20, 232:1, 232:4, 233:8, 233:13
green
159:10, 161:1, 161:14
ground
48:20, 49:19, 51:2, 53:13, 149:12, 172:13, 174:16, 175:20, 177:18, 179:3, 180:13, 186:9, 190:21, 246:10, 247:14
grounded
174:2
guess
35:22, 43:9, 86:4, 197:5

H

half
55:15
hand
35:11, 207:3
happen
107:13, 236:13
happened
36:3
happens
167:6, 167:11, 235:13, 237:18, 239:3, 249:2
happily
59:15
hard
116:14
hatched
252:12
hazard
172:13, 174:16, 175:19, 177:17, 179:3, 186:9, 190:21, 246:10, 247:13
hazards
180:13
head
27:18
hear
62:20, 188:4
hearing
164:16
helical
13:15, 13:18, 14:4, 237:4
helix
238:11, 238:22, 239:9, 239:14, 239:15, 239:16, 240:1, 240:5
help
108:7
helpful
104:3, 234:19
here
5:2, 10:19, 12:3, 28:16, 31:14, 34:4, 40:5, 67:19, 74:13, 80:3, 123:12, 133:20, 147:21, 178:10, 178:15, 179:9, 189:6, 197:3, 197:14, 198:11, 200:21, 201:20, 205:13, 216:5, 225:5, 229:16
hereby
254:5
hereinbefore
254:7
hereunto
254:20
hey
231:22
history
99:6, 101:6, 104:1, 104:18, 106:6, 109:7, 109:16, 111:7, 114:12
hold
42:4, 45:3, 75:1, 188:3, 200:13, 215:7, 229:22, 230:1, 231:16, 234:17
holding
35:11, 132:12
honesty
212:12
hopefully
21:7, 69:8
horizontally
205:5, 205:8
hour
55:15, 142:22, 220:13
hours
248:10
however
218:11
huge
220:10
hungry
114:19
hypotheticals
91:4

I

icon
22:19, 23:4
identification
69:19, 115:21, 158:16, 162:1, 199:17, 248:21
identified
111:13, 129:11, 129:17, 129:20, 131:3, 138:9, 138:14, 158:20, 201:9, 236:8
identifies
121:13
identify
8:2, 25:21, 59:7, 79:17, 103:18, 104:22, 105:20, 106:6, 109:10, 109:15, 111:6, 126:2, 126:13, 126:18, 129:12, 129:18, 130:22, 131:1, 131:11, 148:17, 217:3
identifying
72:22, 159:4
illustrate
165:7, 242:15
illustrated
75:11, 82:1, 111:15, 122:7, 123:1, 161:15, 201:20, 236:5, 237:9, 243:1
illustrates
168:16, 251:9
illustrating
106:14
illustration
93:14, 241:3
imaginary
86:3
imagine
85:14
impact
197:22
impedance
221:19
imply
232:8
implying
170:4
important
157:8
impressed
17:14
inaccurate
87:21, 88:3, 89:7, 90:13, 91:14, 91:22

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

inc
1:8, 254:13
inceptions
191:5
include
73:18, 105:7, 118:13, 150:19, 151:14, 169:7, 170:4, 173:16, 176:8, 176:16, 177:14, 241:10, 251:11
included
220:8
includes
102:2, 117:1, 118:4, 126:8, 127:1, 127:9, 127:19, 128:7, 128:22, 129:5, 130:2, 133:16, 136:21, 138:16, 141:5, 149:5, 177:8
including
14:1, 112:22, 113:1, 121:19, 130:14, 131:17, 134:20, 140:6, 140:22, 147:2, 148:7, 149:18, 150:2, 154:3, 155:17, 157:14, 170:14, 172:1, 174:4, 177:13, 178:22, 179:2, 180:7, 186:4, 186:8, 190:14, 208:12, 216:3, 217:16, 221:13, 242:21, 245:20, 246:22
inclusions
209:20, 214:18
inconsistent
90:6, 90:22, 109:12, 109:17, 111:8, 111:20, 112:5, 113:2
incorporate
166:9, 166:16, 170:14
incorporated
5:5, 6:3, 166:18, 167:1, 172:2, 174:5, 180:8, 184:12, 185:4, 185:5, 185:16, 187:1, 187:8, 190:15, 242:22, 245:21, 247:1
incorporating
17:22, 167:20, 169:14
incorporation
168:6, 168:18, 178:21, 178:22, 191:5
incorrect
76:10, 77:15, 78:5, 83:3, 85:7, 89:4, 126:2, 176:17, 209:11
incredibly
220:16
independent
140:4, 217:20
index
4:1
indicate
131:4, 177:14, 190:3, 190:16
indicated
55:15, 98:4, 131:14, 197:18
indicates
47:18, 60:11, 106:12, 163:2, 166:11, 189:22
indicating
22:15, 61:4, 62:1, 65:14
individual
54:9, 113:15, 114:9
industrial
219:3
inexact
201:16
inference
53:13, 172:11, 174:14, 190:8, 190:19
insertion
13:1, 13:12
inside
202:21, 207:22, 208:6, 211:10, 213:11
installations
16:2
instance
12:4
instances
14:7
instead
141:15, 168:11
instruct
142:17, 212:22
insulated
54:20, 54:21, 54:22, 55:1, 55:8, 55:9, 211:13, 211:14, 211:19, 213:11, 213:21, 228:12, 228:13, 229:12
insulators
47:12
insulting
212:16
integral
14:2
integrity
151:2
intended
209:3, 241:3
interactions
190:12
interface
220:12
interference
48:19, 48:20, 49:18, 49:19, 51:1, 51:2, 53:12, 56:10, 56:21, 58:1, 64:13, 217:17, 220:7, 221:4, 221:15, 221:20, 222:1, 222:5, 246:8, 247:11
interfering
221:16
internal
222:9, 222:21
interpretation
26:15
interrupted
145:19
intrinsic
26:9
invention
171:9, 219:13, 219:16, 219:21, 220:3, 220:5
involve
66:20, 224:5
involved
10:6, 13:22, 16:16, 19:8, 19:10, 236:5
involving
197:3
ipr
1:11, 5:7
isolated
161:16, 163:16
isolation
11:1, 190:9, 190:10, 224:15
issue
10:19, 10:20, 70:11, 101:9, 103:10, 147:17, 157:6, 197:3, 197:14, 198:11
issues
116:17, 200:19
itself
23:4, 29:6,

34:12, 35:6, 35:19, 36:11, 36:14, 37:17, 46:19, 47:3, 53:22, 54:5, 136:18, 156:7, 163:5, 163:7, 163:11, 163:17, 163:19, 205:13, 214:9, 228:2

J

jachimowicz 232:12, 232:20, 234:3, 234:9, 234:14, 235:3
jachimowicz's 233:4, 233:7
jefferson 3:13
job 1:20
joke 132:22, 133:3
jose 3:19, 5:12
judge 107:14
judges 102:8, 102:12, 102:16
julie 3:18

K

karen 1:22, 2:9, 6:8, 254:3, 254:26
keep 22:1, 70:16, 86:1, 114:17
kidding 88:18
kind 10:18, 67:17, 70:17, 88:11, 96:19, 115:8
klerekoper 1:22, 2:9, 6:9, 254:3, 254:26
knifes 191:17, 192:4
knives 191:20, 192:1, 192:12
know 7:22, 9:2, 9:6, 9:13, 17:8, 27:22, 28:1, 33:14, 33:19, 34:3, 34:16, 36:18, 37:3, 39:17, 39:22, 41:3, 44:15, 54:9, 54:11, 63:9, 69:10, 89:10, 89:17, 89:22, 91:3, 91:19, 95:9, 96:4, 102:17, 107:19, 115:16, 116:4, 116:17, 123:12, 139:6, 174:19, 197:8, 201:19, 202:1, 203:1, 205:1, 205:4, 205:12, 205:17, 215:10, 216:7, 216:12, 216:18, 217:3, 223:7, 223:15, 226:8, 226:15, 238:9, 238:17, 238:21, 239:1, 252:9
knowledge 19:18, 104:2, 104:19, 106:6, 109:8, 111:22, 112:2, 112:20, 114:13
known 239:15
knows 133:9

L

label 21:14, 69:13, 69:17, 94:4, 107:4
labeled 79:8, 83:9, 106:15, 200:6, 200:7, 225:18, 225:19
labeling 21:10, 248:16
lacks 31:15
laid 35:4
language 24:7, 30:20, 45:3, 51:8, 53:22, 54:5, 59:11, 63:20, 67:6, 67:7, 105:14, 125:7, 170:15, 171:8, 171:15, 171:20, 176:13, 179:6, 189:22, 190:2, 191:2
large 17:14, 17:21, 207:21, 208:5
larger 38:3
last 187:6, 187:15
laterally 74:6, 85:14, 89:17, 89:18, 92:16, 110:17
latitude 82:11, 82:15, 89:19, 90:2
latitudes 88:11
latitudinal 82:21
law 5:21, 6:1
layer 38:16, 38:21, 39:4, 39:12, 39:19, 41:3, 43:2, 43:3, 43:6, 43:10, 43:13, 43:17, 43:19, 46:5, 46:12, 46:21, 47:5, 47:10, 48:16, 50:2, 56:16, 57:8, 57:22, 60:12, 61:1, 61:5, 64:20, 65:2, 71:4, 71:6, 71:22, 74:20, 74:22, 75:4, 75:7, 75:21, 77:9, 92:21, 92:22, 93:3, 93:4, 97:9, 97:10, 151:19, 151:20, 163:10, 163:13, 173:7, 173:22, 175:6, 175:16, 181:22, 183:1, 183:5, 187:10, 189:2, 194:16, 195:11, 206:7, 240:15, 240:17, 240:21, 241:10, 241:13, 241:18, 241:19, 242:2, 242:3, 242:10, 242:11, 243:15, 251:11
layers 24:1, 24:4, 24:9, 24:11, 29:19, 29:22, 31:2, 38:12, 43:1, 45:2, 45:7, 46:16, 47:11, 47:19, 48:21, 49:21, 51:3, 53:15, 55:4, 55:7, 56:19, 64:2, 65:12, 67:11, 67:21, 68:19,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

102:3, 102:6, 117:2, 118:6, 118:8, 125:12, 126:10, 126:12, 127:3, 127:5, 127:11, 127:13, 127:20, 127:22, 128:8, 128:10, 129:6, 129:8, 130:4, 130:6, 137:1, 137:3, 138:17, 138:19, 140:11, 141:6, 141:8, 151:7, 152:6, 152:19, 153:3, 153:8, 153:10, 183:21, 184:3, 184:7, 184:13, 185:1, 185:6, 185:12, 185:14, 185:21, 186:14, 187:1, 193:10, 194:14, 229:10, 250:10
laying
203:8, 204:10, 204:12, 204:14, 205:6
least
67:13, 68:1, 68:16, 104:19, 112:3, 112:4, 112:20, 114:13, 129:22, 134:9, 156:2, 202:12, 208:13, 208:14, 209:4, 214:6, 232:9
leave
145:6
lectured
133:10
lecturing
146:5
left
75:13, 85:18, 90:4, 92:15, 94:13, 95:7, 96:8, 98:11, 98:15, 145:2, 158:21
legal
133:6
length
169:9, 173:18, 251:14
lengths
176:9, 176:11, 176:15, 176:19, 177:6
less
193:10, 194:14, 195:11, 198:19
let's
24:18, 38:8, 39:13, 42:11, 65:17, 65:22, 70:4, 74:6, 89:21, 114:21, 115:14, 117:8, 123:12, 125:3, 132:17, 134:2, 139:5, 142:16, 143:4, 146:10, 146:11, 147:6, 161:2, 199:1, 203:5, 210:2, 212:20, 240:7, 245:9
level
221:22
lexicographer
20:12, 99:4, 99:10, 99:17, 100:12, 100:18, 101:9, 101:18, 103:5, 103:8, 103:17, 105:1
lexicography
104:7, 104:12
liking
189:9
limit
176:20
limitation
20:18, 30:4, 62:15, 62:16, 250:15
limitations
61:10, 176:16
limited
87:17, 90:8, 91:5, 195:2
line
90:5, 95:2, 110:1, 110:4, 110:6, 110:7, 144:7, 144:15, 147:7, 148:10, 149:20, 151:9, 154:8, 159:17, 165:17, 171:11, 176:3, 178:1, 181:17, 183:19, 187:13, 230:15, 231:3, 232:17, 233:16, 234:18, 234:19, 241:9, 251:7
lines
94:10, 149:4, 149:21, 151:10, 154:3, 164:3, 189:19, 189:21
link
225:17
list
97:8, 216:21
listed
105:20, 106:5, 128:18, 164:11, 164:14, 165:3
listen
31:5, 211:7, 212:6, 212:7
litigations
9:5
little
7:1, 22:15, 39:10, 40:5, 75:19, 85:16, 95:4, 95:11, 201:16, 206:7
llc
1:5, 5:5
llp
3:12
locate
105:11, 112:7, 112:14, 113:9
located
108:5
location-based
219:1, 219:11
logic
74:9
logically
67:12, 68:19
long
44:3, 72:4, 72:7, 78:1, 78:17, 78:18, 79:1, 90:19, 92:11, 106:20, 110:15, 111:2
longer
65:18, 65:19, 72:8, 92:6, 248:9
longitude
82:11, 82:15, 89:16, 89:19
longitudes
88:10, 89:13
longitudinally
66:17, 85:17, 120:17, 135:14, 136:15, 137:11
look
28:4, 41:11, 41:12, 41:13, 43:9, 70:17, 94:7, 96:1, 121:9, 122:10, 123:8, 123:19, 124:13, 147:18, 156:10, 159:16, 161:19, 181:14, 182:22, 187:3, 187:5, 187:6, 193:18, 193:21, 200:2, 202:17, 206:16, 224:22,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

229:16, 231:2, 232:11, 235:8, 235:19, 236:22, 237:12, 240:11, 241:5, 245:9, 248:6, 250:3
looked
252:8, 252:17
looking
41:14, 41:16, 62:9, 62:15, 62:22, 63:13, 92:20, 93:2, 108:2, 125:19, 188:20, 252:11
looks
85:16, 203:1
loops
172:13, 174:16, 175:20, 177:18, 179:4, 180:14, 186:9, 190:21, 246:10, 247:14
lost
183:6
lot
17:15, 207:16, 207:18
lots
9:14
loud
189:7, 189:15
lower
198:19
lunch
132:8
luncheon
115:3

M

machine
11:20, 12:1, 191:16, 192:3, 192:9, 192:16, 193:1, 193:15, 194:7, 194:22, 195:6, 196:3, 196:8
machines
191:15, 194:3, 195:14, 195:16, 195:17, 195:22, 196:9
made
62:14, 116:6, 116:11, 116:12, 123:18, 144:16, 163:21, 172:4, 174:7, 231:18, 245:22, 247:3
magnetic
177:9
magnitude
203:2, 207:11
maintain
58:22, 126:21, 163:14
maintains
60:15
make
58:10, 91:1, 141:22, 166:6, 172:16, 189:5, 194:18, 198:5, 203:5, 214:8, 221:21, 224:1, 224:12
makes
76:19, 148:10, 174:22
making
6:7, 7:19, 170:17, 172:6, 174:9, 197:7, 246:3, 247:5
mandate
27:1
manufacture
11:22, 12:4, 12:8, 13:1, 16:9
manufactured
16:17
manufacturing
12:11, 12:14, 16:8, 193:9, 194:13, 195:10, 196:13, 196:17, 196:18, 197:1, 197:12, 198:10
many
19:15, 19:22, 38:16, 38:21, 39:21, 74:20, 75:9, 92:21, 93:3, 201:12, 201:19
mark
21:17, 158:11, 189:6
marked
4:14, 4:17, 4:19, 4:22, 21:16, 69:19, 70:19, 98:12, 115:21, 158:14, 158:16, 162:1, 199:17, 248:21, 251:4
market
218:13, 218:20
markings
95:2
materials
10:11, 14:18, 184:11, 185:4, 185:17, 196:10, 208:12
matter
5:4, 24:22, 85:6, 87:17, 87:20, 88:2, 89:3, 89:6, 90:11, 91:20, 228:17, 229:2, 229:6, 239:2, 247:17, 247:21, 247:22, 248:3
matters
9:5, 9:8, 13:22
maybe
108:7, 202:13, 202:16, 228:4
mcnutt
167:20, 170:14, 172:2, 174:4, 177:13, 178:22, 179:1, 180:7, 186:4, 190:14, 191:5, 242:21, 245:20, 246:22
mean
12:6, 12:18, 13:21, 14:16, 19:17, 20:8, 31:1, 31:10, 31:16, 32:1, 32:18, 34:15, 35:9, 42:20, 50:13, 54:9, 56:22, 57:17, 58:3, 58:12, 59:2, 61:8, 61:14, 61:18, 66:19, 68:8, 71:7, 76:8, 85:14, 94:6, 118:11, 123:3, 124:21, 132:11, 133:2, 135:22, 150:5, 150:11, 154:17, 197:19, 201:16, 201:17, 202:6, 207:13, 207:16, 224:9, 224:21, 224:22, 225:18, 234:14, 236:8, 239:5, 239:14, 242:6
meaning
20:7, 20:16, 25:9, 25:14, 25:16, 26:3, 26:8, 26:14, 26:21, 27:4, 27:11, 27:14, 27:21, 33:11, 44:8, 51:7, 51:12, 52:2, 52:7, 52:15, 54:5, 54:7, 54:10, 54:12, 54:16, 54:18,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

55:11, 77:1, 95:12, 100:9, 100:10, 100:15, 100:16, 101:1, 101:3, 103:22, 104:17, 105:4, 105:9, 107:8, 107:18, 108:10, 108:13, 108:20, 108:21, 109:2, 109:6, 109:12, 109:18, 111:9, 111:21, 112:6, 112:10, 112:17, 113:3, 113:10, 113:15, 113:20, 114:7, 114:9, 135:15, 144:20, 223:1
meanings 113:11
means 31:15, 57:9, 64:14, 79:15, 100:7, 112:7, 112:14, 169:2, 192:4, 211:5
meant 144:18
measure 221:14, 221:22
measured 221:12
measurements 221:22, 224:1, 224:13
measuring 222:5
mechanical 119:8, 120:6, 120:14, 121:7, 123:2, 124:9, 124:16, 130:9, 130:12, 130:15, 131:6, 131:8, 131:15, 131:19, 131:21, 134:15, 134:18, 134:22, 136:7, 136:20, 137:15, 138:13, 138:21, 139:2, 139:7, 139:14, 139:19, 140:3, 140:19, 143:15, 143:22, 144:11, 144:22, 145:2, 146:2, 147:9, 148:9, 148:11, 148:12, 148:16, 149:15, 150:1, 150:17, 151:2, 152:16, 153:7, 154:7, 155:11, 155:14, 155:16, 155:20, 230:9, 231:19
mechanism 39:19, 209:2
mechanisms 39:16
media 5:2
meet 61:10, 250:14, 250:17, 253:3
mention 212:5
mentioned 10:10, 24:6, 78:10, 146:2
mentions 127:7
metallic 178:4, 179:14, 180:2, 193:9, 194:13, 195:11, 201:7, 213:10
metallize 213:15, 213:16
metallized 213:19
metals 210:21
method 223:22
methods 220:22, 221:13, 222:4
michigan 2:10, 254:5, 254:31
microelectronics 218:15, 218:22, 219:10
micron 208:18
microns 210:16, 214:4
might 7:2, 7:8, 9:5, 21:20, 23:4, 77:4, 88:12, 94:7, 94:12, 179:8, 185:7, 207:6, 223:2
miles 89:22
military 7:6
mill 231:15
milliliters 231:13, 233:9
millimeters 230:18, 231:8, 231:14, 231:15
mills 231:18, 232:1, 232:8, 232:9, 233:10, 233:19, 234:1, 235:1
mind 54:8, 70:17
mining 219:2, 219:12
minneapolis 3:7
minnesota 3:7
minute 225:15
minutes 66:1, 225:6
miriam 27:21
missing 128:13
mistake 24:16
mitigate 48:20, 49:19, 51:1, 53:13
model 88:12
modifies 28:6, 46:2, 46:11
modify 28:9, 34:8, 46:4
modifying 29:1
modulation 220:13
moment 139:5, 180:16
monitor 5:10
more 16:3, 17:15, 17:16, 24:16, 39:3, 70:5, 79:3, 93:8, 106:1, 132:18, 147:11, 148:15, 150:6, 150:12, 151:12, 151:20, 152:2, 152:11, 153:13, 154:5, 189:8, 197:7, 198:3, 198:4, 203:2, 207:11, 237:15
morning 5:18, 5:22, 6:18, 250:5
most 78:7, 116:15, 117:13, 180:17, 239:14
motion 74:7, 74:17
motivate 196:14, 197:2,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

197:13
motivated
197:19
motivates
197:17
mouthful
18:12
move
74:5, 85:13, 85:19, 85:20, 88:10, 89:16, 89:17, 89:18, 92:16, 96:8, 111:3, 130:18, 132:3, 140:14, 157:16, 191:7
moving
74:13, 74:16, 85:13, 96:3, 106:21, 106:22, 110:17
much
92:12, 202:2, 220:7, 248:9
multilayer
23:21, 29:17, 46:14, 55:2, 56:5, 140:6, 140:22, 152:5, 152:18, 153:2, 153:7, 250:8, 250:15
multiple
183:21, 184:13, 187:1, 207:10
must
168:3, 168:6, 168:12, 169:2
myself
215:18

N

name
5:19, 69:9, 84:10, 84:13
nature
131:8
navigate
88:14
navigation
82:19, 88:9
near
221:14
necessarily
57:6, 101:1, 222:9, 222:20, 224:5
necessary
21:17
need
23:20, 42:12, 59:16, 93:5, 93:6, 108:5, 116:3, 133:10, 142:3, 170:10, 183:11, 188:4, 189:3, 189:6, 208:9, 208:20, 212:10, 212:12, 218:12, 223:9, 226:5, 250:21
needs
45:15, 59:19, 62:10, 146:8
negative
194:20
neither
113:8
neptape
215:2, 215:5, 215:11, 215:12, 215:15, 215:22, 216:4, 216:8, 216:11
never
9:22, 10:3, 10:5, 11:5, 11:8, 11:12, 11:15, 11:19, 11:22, 12:16, 12:22, 13:10, 13:15, 13:18, 14:3, 14:9, 14:13, 14:20, 15:4, 15:9, 15:10, 15:14, 16:13, 16:19, 17:1, 127:6, 146:2, 147:14, 148:3, 153:14, 196:2, 215:5
new
3:14, 6:2, 158:3, 188:14, 188:19
next
217:16
noise
18:2, 164:16
nomenclature
81:5, 85:2
none
9:21, 12:15, 17:17, 18:3, 219:10
nonlimiting
162:11, 164:6
nonobligatory
171:7
nonresponsive
111:4, 130:19, 132:4, 140:15, 141:17, 157:17, 191:8
nonwoven
75:4
north
90:1
notary
2:10, 254:1, 254:4, 254:30
note
7:17, 157:8, 189:5, 191:9, 191:10, 202:6, 219:14
noted
212:17
nothing
36:3, 37:22, 111:22, 133:16, 193:13
notice
2:9
noun
28:9, 28:21, 30:5
nowhere
149:6
number
5:3, 5:7, 17:12, 17:14, 17:21, 21:18, 22:6, 23:13, 24:19, 30:6, 30:7, 44:15, 44:18, 44:22, 69:17, 70:19, 70:22, 140:5, 140:22, 169:13, 170:12, 179:19, 179:20, 206:18, 210:21, 221:12, 221:15, 241:11, 242:1, 242:2, 242:9, 242:10
numeral
206:5

O

oakland
254:29
oath
6:12, 133:13
object
157:19, 213:13, 218:6, 222:10, 236:3, 238:4, 242:4
objection
9:9, 13:13, 13:20, 14:6, 15:2, 15:21, 16:7, 17:20, 18:10, 18:18, 19:6, 27:7, 27:17, 28:11, 29:2, 29:11, 29:15, 30:8, 30:17, 31:11, 32:17, 33:2, 33:8, 34:14, 35:8, 35:21, 36:9, 36:16,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

37:19, 38:18, 39:1, 39:9, 41:8, 42:3, 43:16, 43:22, 44:10, 44:12, 45:11, 46:13, 47:6, 48:1, 48:8, 48:14, 49:4, 49:14, 50:7, 50:17, 51:9, 51:15, 52:5, 52:11, 53:4, 54:1, 54:13, 56:3, 56:14, 57:4, 57:13, 57:19, 58:7, 58:16, 59:8, 60:9, 60:20, 61:9, 62:7, 62:19, 63:5, 64:17, 65:9, 67:15, 68:4, 74:15, 75:17, 76:18, 79:11, 80:7, 80:12, 80:18, 81:4, 82:13, 82:17, 83:5, 83:21, 84:16, 85:9, 86:10, 86:12, 87:2, 88:5, 91:17, 96:17, 97:22, 101:20, 102:14, 102:20, 103:11, 108:1, 111:11, 112:11, 112:18, 116:21, 133:8, 139:15, 139:20, 141:18, 142:9, 142:13, 143:16, 145:5, 147:16, 148:5, 148:20, 149:10, 150:7, 150:13, 152:8, 152:21, 153:5, 153:17, 155:1, 155:7, 156:19, 157:5, 160:17, 162:9, 162:16, 163:8, 164:15, 165:5, 165:12, 166:1, 166:14, 167:9, 167:14, 168:4, 168:15, 169:4, 170:1, 170:8, 170:22, 171:5, 171:18, 173:4, 173:13, 175:2, 175:14, 178:12, 178:17, 179:12, 180:21, 182:7, 182:14, 186:2, 186:18, 188:2, 192:19, 196:15, 196:20, 197:4, 197:15, 198:12, 200:1, 201:1, 201:15, 202:5, 208:2, 211:11, 216:9, 217:6, 217:10, 218:1, 219:19, 220:1, 220:14, 220:20, 223:4, 223:11, 223:18, 224:8, 224:19, 226:20, 227:6, 227:16, 228:20, 229:5, 232:2, 233:11, 234:7, 235:4, 235:14, 235:21, 236:15, 237:1, 237:6, 237:13, 237:21, 238:8, 238:14, 239:4, 239:12, 239:20, 240:3, 240:19, 241:20, 242:12, 243:7, 243:12, 243:20, 244:10, 244:18, 245:8, 245:14, 246:16, 247:18, 249:4, 252:16

obligation
133:6, 133:16

obligatory
170:5, 170:7, 170:21, 171:4

observable
121:21

observed
11:22, 12:4

obtain
167:19, 190:17

obtained
106:10

obvious
230:6

occurred
254:16

occurring
77:2

occurs
235:17, 235:20

oeudragog
3:18

offense
212:17

offer
23:18, 125:20, 126:4, 128:3, 128:12, 128:16, 134:4, 134:11, 135:18, 156:22, 226:18, 227:3

offered
128:5, 134:14, 135:2, 157:22, 158:1

offering
101:16

office
1:1, 5:7, 19:20

oh
41:16

old-fashioned
7:1

omit
167:6, 167:11, 167:16, 167:18

once
22:21, 106:1, 127:7, 212:15

one
14:1, 19:21, 21:6, 21:20, 22:4, 35:11, 37:2, 38:6, 41:11, 42:4, 43:20, 44:3, 48:21, 49:20, 53:14, 60:15, 61:4, 61:16, 62:1, 62:5, 64:5, 65:16, 68:1, 68:11, 68:20, 69:21, 70:4, 71:8, 71:18, 72:2, 73:6, 75:11, 75:21, 76:12, 82:3, 87:6, 88:15, 98:19, 105:17, 107:12, 108:2, 108:8, 110:19, 112:2, 117:13, 119:6, 121:21, 122:8, 143:17, 147:11, 148:14, 150:6, 150:12, 151:2, 151:12, 151:19, 151:20, 152:2, 152:11, 153:13, 154:5, 158:6, 158:10, 162:19, 163:13, 163:15, 165:19, 166:8, 167:4, 169:14, 170:9, 173:20, 175:8, 175:12, 186:4, 188:3, 189:4, 190:3, 192:9, 192:20, 200:2, 200:13, 201:2, 207:3, 217:4, 217:8, 218:8, 221:21, 225:17, 230:1, 242:1, 246:20, 248:13, 251:1

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

ones
96:21, 193:20, 214:21
only
45:15, 46:18, 85:19, 94:21, 113:19, 179:5, 190:7, 194:2
open
22:18, 22:21, 23:4, 69:11, 70:9, 115:20, 158:5, 162:3, 205:16, 205:17, 205:18, 226:9, 230:10
opening
232:14
operate
193:15, 194:7, 194:22
operating
142:1
opine
99:22
opining
103:15
opinion
49:1, 50:4, 50:14, 52:18, 53:1, 56:11, 56:22, 58:4, 58:12, 59:3, 60:5, 60:6, 62:3, 62:15, 62:22, 63:13, 64:6, 71:15, 71:21, 72:12, 72:16, 73:14, 76:16, 76:19, 76:22, 77:8, 79:15, 81:17, 83:2, 88:20, 88:21, 97:3, 97:4, 97:19, 97:20, 101:16, 101:21, 103:1, 103:7, 104:5, 104:11, 104:14, 110:21, 111:15, 111:22, 114:8, 125:3, 125:21, 126:4, 126:6, 126:18, 126:21, 127:17, 128:3, 128:5, 128:12, 128:16, 129:3, 134:4, 134:11, 134:14, 135:2, 135:18, 139:12, 139:17, 140:1, 140:17, 140:20, 141:21, 142:21, 143:20, 150:15, 152:13, 155:5, 155:21, 156:22, 157:22, 158:1, 169:19, 173:5, 179:8, 188:9, 191:1, 193:14, 194:22, 195:5, 195:8, 226:18, 227:3, 227:22, 228:17, 229:2, 244:4, 245:12
opinions
25:8, 25:13, 48:10, 102:9, 114:1, 114:5, 195:2, 215:2, 227:10, 229:6, 247:16, 247:22
opposed
107:9
opposite
82:12, 82:15
optimal
180:17
option
68:6, 166:13
oranges
207:14, 207:15
order
56:7, 57:6, 57:22, 58:9, 61:10, 64:19, 74:6, 175:9, 183:22, 190:6, 209:22, 250:14
ordering
215:17
orders
203:2, 207:10
ordinary
20:7, 20:16, 25:9, 25:14, 25:16, 26:2, 26:8, 26:14, 26:20, 27:4, 27:11, 27:14, 27:21, 51:7, 51:12, 52:2, 52:7, 52:15, 54:5, 54:7, 54:10, 54:11, 54:16, 54:18, 55:11, 77:1, 100:10, 100:16, 101:2, 103:22, 104:17, 105:4, 106:17, 106:18, 107:8, 107:18, 108:10, 108:13, 108:20, 108:21, 109:2, 109:5, 109:12, 109:18, 110:13, 111:9, 111:21, 112:4, 112:6, 112:10, 112:17, 112:20, 113:3, 113:10, 113:14, 113:19, 113:21, 114:7, 114:9, 114:14, 118:15, 123:21, 131:20, 170:19, 171:2
orientations
187:11, 188:22
oscillating
15:15
other
9:4, 9:5, 9:6, 10:20, 15:6, 35:13, 60:16, 61:4, 62:2, 62:6, 64:5, 65:16, 68:6, 71:9, 71:14, 73:20, 76:14, 87:10, 97:17, 98:20, 128:13, 128:17, 130:13, 131:16, 134:19, 139:3, 144:17, 155:17, 163:15, 166:9, 167:5, 171:14, 175:5, 175:9, 183:19, 187:11, 188:21, 196:12, 196:22, 197:11, 198:6, 198:8, 198:9, 198:15, 210:19, 221:3, 226:17, 227:10, 229:13, 246:20, 251:2
out
21:6, 27:22, 40:2, 68:13, 88:12, 88:17, 145:2, 145:6, 171:20, 189:7, 189:14, 216:21, 239:17, 239:22, 240:1, 240:6
outer
206:13, 206:19, 208:1, 208:7, 210:5, 211:8
outside
14:3, 14:7, 14:9, 14:13, 15:10, 15:14, 15:18, 16:4, 18:13, 19:1, 88:6, 91:13, 91:19, 195:20, 218:4, 219:6, 224:10
over
97:7, 133:1,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

177:2, 219:2, 219:15
overall
166:5, 166:6, 236:21, 245:12
own
20:1, 20:12, 60:5, 103:8, 120:15, 142:21
owner
1:9, 3:10, 6:3, 6:6, 8:11

P

page
4:3, 4:10, 70:14, 93:12, 93:13, 115:15, 122:13, 136:2, 154:11, 159:20, 185:7, 187:16, 203:20, 205:5, 205:20
pages
1:21
painted
192:8
pair
11:12, 11:15, 16:14, 16:15, 16:17, 17:2, 17:4, 54:19, 54:20, 54:22, 55:1, 55:8, 55:9, 228:12, 228:13
pairs
11:17, 18:6, 18:15, 19:3, 221:19, 229:12
paper
7:12, 32:6, 32:10, 32:13, 32:15, 32:19, 32:21, 32:22, 33:5, 33:6, 33:7, 33:11, 33:12, 33:14, 33:17, 34:1, 34:6, 34:7, 34:8, 34:9, 34:12, 34:13, 34:18, 34:19, 34:20, 35:1, 35:4, 35:5, 35:6, 35:18, 35:19, 35:20, 36:1, 36:3, 36:6, 36:7, 36:8, 36:11, 36:12, 36:14, 36:17, 37:7, 37:13, 37:14, 37:17, 37:18, 38:3, 38:7, 189:5, 189:6
paragraph
115:14, 116:3, 116:6, 118:14, 121:10, 126:3, 126:13, 126:15, 127:16, 128:14, 128:18, 129:12, 129:18, 130:8, 131:1, 134:9, 136:3, 137:4, 137:6, 148:18, 149:1, 149:6, 149:11, 149:14, 149:18, 153:22, 154:10, 155:10, 175:22, 176:3, 187:6, 187:15, 187:17, 187:20, 193:21, 194:3, 194:5, 195:3, 195:4, 206:11, 206:12, 206:16, 208:17
paragraphs
129:21, 129:22, 131:3, 131:13, 157:7, 208:10
parallel
72:19, 73:21, 74:17, 75:13, 76:2, 76:13, 78:3, 79:2, 80:3, 80:14, 80:21, 81:7, 81:14, 81:22, 82:6, 83:7, 83:10, 84:2, 84:18, 84:22, 86:14, 87:5, 90:20, 93:12, 93:15, 97:12, 98:2, 98:10, 110:16, 111:1
parameter
217:17
parameters
198:1, 224:14, 224:17
paraphrasing
222:4
part
8:20, 9:6, 14:2, 14:21, 14:22, 15:5, 44:1, 69:22, 70:1, 102:22, 104:10, 128:17, 147:17, 163:11, 164:14, 165:3, 192:5, 192:6, 194:4, 198:22, 237:2
particular
14:20, 15:5, 19:9, 20:20, 25:2, 25:6, 59:4, 66:13, 89:13, 91:9, 91:20, 95:10, 105:7, 105:14, 144:7, 144:10, 147:8, 148:7, 157:12, 164:3, 171:9, 188:11, 196:4, 198:22, 202:8, 217:4, 217:9, 228:17, 229:2, 247:17
particularly
196:10
parties
5:14
party
254:12
past
68:7, 69:1, 86:2
patch
162:12, 162:19, 163:2, 163:3, 163:10, 163:11, 163:12, 163:16, 163:17, 163:18, 163:19, 164:6, 166:3, 169:8, 170:4, 172:4, 173:16, 174:7, 175:4, 246:1, 246:19, 246:20, 247:3, 251:12, 252:3, 252:13, 253:2, 253:6
patches
162:18, 162:21, 163:21, 165:8, 170:5, 175:5, 176:7, 176:11, 177:6, 178:6, 178:20, 179:16, 179:21, 180:4, 181:5, 181:9, 181:13, 181:20, 183:12, 184:12, 185:4, 185:5, 185:16, 186:1, 186:5, 186:17, 186:21, 186:22, 187:7, 188:8, 188:11, 190:4, 190:6, 190:16, 211:22, 241:11, 242:15, 242:17, 243:1, 244:11, 244:12, 245:3, 245:10, 246:18, 246:19

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

patent
1:1, 1:3, 1:9, 1:12, 3:10, 4:13, 4:21, 5:6, 6:2, 6:5, 8:11, 8:21, 9:5, 10:19, 17:7, 17:8, 19:13, 19:14, 19:15, 19:16, 19:18, 19:19, 19:20, 19:21, 20:3, 20:4, 20:18, 21:1, 21:4, 21:8, 32:2, 36:21, 37:8, 37:22, 38:2, 38:4, 38:9, 38:15, 38:20, 39:12, 41:2, 41:6, 41:10, 42:22, 87:18, 88:7, 88:15, 88:21, 88:22, 91:9, 92:5, 101:13, 101:14, 102:1, 102:7, 102:11, 129:20, 139:14, 139:19, 140:3, 140:5, 140:18, 140:21, 141:2, 170:11, 171:7, 196:19, 202:7, 222:3, 222:15, 224:11, 228:2, 228:7, 250:1, 251:4, 252:18, 253:1
patentee
20:12, 99:3, 99:9, 99:17, 100:12, 100:18, 101:4, 101:9, 101:17, 103:4, 103:8, 103:16, 105:1
patents
17:12, 17:18, 17:22, 18:1, 20:1, 166:18
path
238:12
pattern
162:14
patterns
162:12, 162:17, 164:6
pause
139:6, 188:6
pauses
9:14, 9:16
pdf
4:23, 22:19, 69:9, 70:14, 205:20, 225:17, 248:6, 248:21
pending
159:21
percent
208:14, 208:15, 209:17, 214:7
perfect
67:9, 91:8
perform
103:20, 104:4, 104:10, 195:13, 223:9, 227:20
performance
197:22, 217:15
performed
104:14, 174:1
performing
27:9
perhaps
77:15
perimeter
204:4, 204:6, 206:8
period
176:12, 219:3
perpendicular
71:13, 81:11, 82:8, 82:21, 83:14, 84:7, 85:3, 86:20, 87:13, 110:18
person
81:8, 104:19, 106:17, 109:9, 110:13, 112:3, 112:4, 112:20, 113:21, 114:13, 118:15, 123:21, 131:20, 150:15, 152:13, 190:1
personally
10:5, 11:10, 14:18, 16:21, 17:3, 19:10
perspective
27:3, 71:8
pet
49:22, 50:1, 51:4, 51:5, 53:16, 53:17
petitioner
1:6, 3:3, 5:20
phd
1:14, 2:1, 4:5, 6:14, 254:6, 254:16
phrase
23:13, 23:18, 24:19, 25:2, 25:10, 25:22, 26:15, 99:11, 99:18, 99:19, 176:15, 176:18
phrases
30:5, 98:19, 105:7, 114:10
physical
67:19, 135:3, 135:4, 135:7, 135:19, 138:3, 138:7, 244:12
physically
61:19, 134:3, 134:5, 134:13, 192:16, 193:1, 195:6, 236:12
physics
239:3
pick
190:3
picked
132:7
picture
192:8
piece
4:23, 12:9, 32:9, 32:12, 32:15, 32:21, 33:4, 33:5, 33:6, 33:10, 33:15, 33:16, 34:2, 34:6, 34:8, 34:9, 34:10, 34:12, 34:17, 34:18, 34:19, 34:20, 34:21, 35:1, 35:3, 35:4, 35:5, 35:6, 35:13, 35:17, 35:18, 35:19, 35:20, 36:3, 36:6, 36:8, 36:11, 36:12, 36:13, 36:14, 37:13, 37:14, 37:15, 37:16, 37:17, 37:18, 38:3, 38:6, 78:9, 78:17, 78:18, 85:14, 96:11, 117:9, 118:10, 118:17, 119:5, 119:13, 124:19, 144:8, 144:10, 147:8, 148:8, 189:5, 201:17, 202:11, 203:7, 203:8, 204:22, 207:19, 248:22, 249:7
pieces
38:3
pile
35:22
place
34:9, 39:15, 40:16, 97:7,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

183:6, 214:9, 236:19
placed 40:19, 43:10, 214:22
placement 12:19, 18:6, 18:15, 19:3
places 109:22
plain 20:7, 25:9, 25:14, 25:16, 26:2, 26:8, 26:14, 26:20, 27:3, 27:11, 27:14, 27:20, 30:19, 51:7, 51:12, 52:1, 52:7, 52:15, 54:4, 54:7, 54:10, 54:11, 54:15, 54:18, 55:11, 76:22, 95:11, 100:10, 100:16, 101:2, 103:22, 104:16, 105:4, 107:8, 107:18, 108:10, 108:13, 108:20, 108:21, 109:1, 109:5, 109:12, 109:17, 111:8, 111:21, 112:5, 112:10, 112:17, 113:2, 113:10, 113:14, 113:19, 114:6, 114:8, 179:5
planet 3:18, 3:19, 5:13, 6:9
planning 7:19
plastic 135:15, 136:16, 137:12, 147:10, 148:14, 149:8, 150:2, 150:5, 150:11, 151:5, 151:8, 151:10, 151:11, 151:19, 151:20, 152:1, 152:10, 152:20, 153:4, 153:8, 156:7, 156:16, 156:17, 157:1, 157:4, 157:15, 159:12, 159:18, 160:6, 161:1, 161:14, 191:20, 192:5, 230:21
plate 235:18, 236:20
plates 235:12, 236:13
platform 201:20
plurality 209:19, 214:18
point 55:17, 216:19, 222:13, 242:6
pointed 171:20, 199:21, 200:21, 201:22, 202:18, 203:22
pointing 200:8, 206:6
points 204:8, 204:9
polyester 49:22, 50:1, 51:4, 51:5, 53:16, 53:17
polyethylene 147:10, 148:14, 151:12, 152:2, 152:11, 152:14, 153:12, 154:4, 157:10
polymer 39:17, 214:21
polymeric 209:21, 214:19
portion 125:6, 206:19, 209:21, 214:19, 223:16, 252:2, 252:12, 252:13
portions 208:13, 211:1, 214:6, 214:16
posed 27:20
posita 154:12, 154:20, 155:4, 155:21, 156:2, 168:22, 170:13, 171:13, 172:1, 172:8, 174:3, 174:11, 180:6, 191:4, 196:14, 197:2, 197:13, 197:17, 197:19, 242:20, 243:13, 245:19, 246:5, 246:21, 247:8
position 125:10, 194:6
positioned 165:19, 168:3, 169:11, 173:20
possibilities 179:19, 181:11, 241:17, 242:1, 242:9
possibility 179:19, 179:20
post 74:4, 86:3
potential 172:13, 174:16, 175:20, 177:18, 179:3, 180:13, 186:9, 190:21, 246:10, 247:14
potentially 9:4
power 220:18, 221:13
precise 93:6
prefer 6:20, 31:12, 80:22, 86:5, 94:5
preliminary 8:9
presence 168:17
present 3:17, 217:20, 217:22, 218:3, 219:7
presented 217:19, 227:13
pressed 116:14
presumably 35:14, 36:2, 41:1, 71:7
pretty 237:16, 241:1
previous 191:12
previously 4:14, 4:17, 4:19, 4:22, 46:7
prior 4:20, 9:13, 10:20, 27:11, 70:10, 102:18, 146:21, 193:6, 199:14, 199:18, 208:17
probably 9:2, 9:13, 22:14, 214:20, 225:5
problem 22:8, 114:11, 143:2
problematic 84:15
problems 226:1, 228:5
proceed 142:14
proceeding 21:17, 26:7, 26:13, 70:11, 90:17, 100:2,

100:4, 102:19, 103:10, 107:13, 195:19, 195:20, 250:2, 251:5
proceedings 21:15, 188:6
process 13:10, 193:7, 193:20
produce 188:11
produced 16:17
producing 190:11
progress 62:14
properties 131:9, 131:22
propose 25:1, 25:21
proposed 25:7
prosecution 99:6, 101:6, 104:1, 104:18, 106:5, 109:7, 109:11, 109:16, 111:7, 114:12
protect 151:1
protection 16:11, 119:9, 120:7, 120:14, 121:7, 123:2, 124:9, 124:17, 130:9, 130:16, 131:19, 134:16, 134:22, 136:7, 136:20, 138:13, 138:21, 143:22, 144:2, 144:22, 148:11, 148:13, 149:16, 150:1, 154:7, 155:12, 155:14, 155:20, 230:9
provide 8:5, 8:13, 20:13, 99:4, 121:7, 124:16, 130:15, 131:19, 134:21, 144:1, 144:3, 149:15, 150:22, 155:14, 155:20, 177:2, 177:9, 180:11, 194:21, 209:13, 213:15, 213:16, 213:17, 214:11, 230:8, 248:5, 253:7
provided 99:10, 99:18, 100:11, 101:18, 103:9, 105:6, 126:6, 250:22
provides 119:8, 120:6, 120:14, 124:8, 130:9, 130:12, 130:14, 131:15, 131:18, 134:15, 134:18, 134:21, 136:6, 136:20, 138:13, 138:21, 139:2, 140:7, 141:2, 150:17, 154:6, 155:11, 155:15, 155:19, 172:9, 174:12, 180:10, 190:17, 246:6, 247:9
providing 101:10, 123:2, 131:5, 224:3, 224:15, 244:21
ptab 107:14
public 2:10, 217:21, 218:4, 219:7, 254:1, 254:4, 254:30
purchased 215:11
purchasing 215:17
pure 74:17
purple 121:12, 122:1
purporting 123:13
purposes 10:22, 144:14, 144:15
pursuant 2:9
put 21:4, 22:2, 27:8, 32:21, 33:5, 35:12, 35:17, 36:7, 36:13, 37:14, 37:15, 69:7, 70:18, 88:12, 115:18, 158:4, 199:10, 205:13, 211:3, 215:2, 225:22, 228:4, 228:17, 229:2, 230:12, 248:6

Q

qualification 19:20
qualified 20:1
questioning 8:1
questions 37:3, 59:13, 91:7, 107:20, 115:9, 116:9, 133:7, 133:11, 141:16, 142:15, 146:22, 147:2, 191:2, 213:3, 249:11, 253:10
quite 88:13, 139:7
quote 20:18, 23:14, 25:14, 25:22, 26:10, 26:15, 27:5, 28:9, 29:14, 44:20, 47:16, 47:21, 104:9, 147:7, 154:11, 164:5, 165:18, 171:3, 176:6, 181:19, 183:19, 185:20, 187:7, 189:18, 232:20, 245:3, 250:8
quotes 186:11

R

radiation 190:9, 190:10, 190:11, 209:3
range 210:16, 233:19, 234:5, 234:11, 234:15
ranges 235:2, 235:6
ratio 221:17, 221:18
ration 221:17
re-articulate 56:17
re-ask 13:7
reach 104:5, 104:11, 183:13
read 6:12, 45:18, 111:14, 111:20, 112:1, 127:6, 128:20, 131:4, 141:16, 145:8, 148:19, 149:19, 149:21, 170:10, 170:11, 172:15, 176:21, 177:12, 184:16, 186:3, 186:12, 187:21, 189:7, 189:14,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

189:17, 193:20, 207:17, 209:1, 251:8, 252:2
reader
188:21
reading
28:19, 53:18, 119:1, 119:4, 119:7, 122:4, 126:14, 141:10, 141:12, 144:7, 147:3, 169:1, 169:6, 171:13, 222:2, 222:3, 251:17
reads
147:7, 176:6, 181:19, 233:17
ready
218:19
real
124:11, 124:14, 124:18
really
19:20, 240:5
reason
9:19, 67:5, 68:11, 156:2, 193:14, 194:6
recall
10:11, 11:21, 12:2, 12:3, 12:6, 12:8, 12:15, 12:21, 13:3, 13:6, 14:7, 14:12, 15:8, 15:13, 15:17, 18:3, 25:5, 41:21, 99:2, 115:11, 156:6, 156:9, 215:3, 215:17, 215:19, 216:10, 233:22, 245:6, 250:12, 252:20
recess
115:3
recite
20:18, 38:12
recited
30:5, 46:21, 98:19
recites
47:15, 48:11, 125:7
recognize
70:10, 70:21, 161:21, 252:12
recognizing
173:10
recollection
10:13, 17:17, 215:15, 215:21
reconstruct
239:7
record
26:9, 65:21, 66:3, 66:4, 66:6, 114:22, 115:2, 115:5, 142:20, 142:22, 143:9, 143:10, 143:12, 146:12, 146:13, 146:16, 146:17, 146:19, 148:17, 161:3, 161:6, 161:7, 161:9, 164:19, 164:20, 164:22, 191:10, 199:4, 199:6, 199:8, 212:16, 225:9, 225:10, 225:12, 249:16, 249:17, 249:19, 251:8, 253:16, 254:10
rectangle
4:23, 39:6, 40:7, 40:11, 42:15, 42:19, 42:21, 43:7, 43:14, 44:3, 92:2, 92:3, 92:10, 92:14, 92:17, 137:17, 137:21, 138:3, 237:18, 248:22, 249:2, 249:7
rectangular
41:6, 42:1, 42:10, 43:11, 90:12, 91:12, 91:21, 237:3, 238:1, 238:12, 239:18, 240:2
red
70:2, 71:1, 71:11, 72:8, 74:14, 74:18, 75:15, 76:3, 76:17, 77:13, 77:20, 78:12, 79:20, 80:6, 80:11, 80:16, 80:22, 81:17, 82:3, 82:7, 83:3, 83:12, 83:20, 84:6, 85:2, 86:9, 87:8, 95:18, 96:11, 96:15, 97:4, 97:16, 97:20, 98:12, 159:1, 199:14, 199:21, 200:8, 200:21, 201:9, 201:22, 202:4, 202:18, 203:22, 204:8, 226:11, 226:16, 227:2, 227:15, 227:21
redirect
147:22, 249:11, 249:13
reduce
198:2, 222:9, 222:20, 223:8, 223:16
reduced
197:6, 221:3, 224:7
reduces
222:8
reducing
18:8, 18:17, 19:5, 140:8, 140:12, 141:3, 196:13, 197:1, 197:12, 197:20, 198:10, 198:16
refer
17:7, 32:3, 74:10, 77:4, 83:17, 83:19, 85:7, 89:7, 91:1, 97:15, 97:18, 98:13, 215:7, 218:2, 230:3, 230:5, 242:6
reference
4:16, 4:19, 4:20, 70:11, 75:2, 97:10, 115:9, 115:11, 115:19, 115:22, 116:18, 143:21, 144:5, 144:16, 150:4, 150:10, 159:18, 161:20, 162:2, 164:8, 166:19, 167:20, 168:7, 168:18, 169:14, 170:15, 172:3, 174:6, 180:8, 188:9, 190:15, 191:3, 199:14, 199:18, 200:16, 232:12, 242:22, 245:21, 247:2, 251:4
referenced
149:17
references
147:3, 166:22, 193:6, 193:8, 194:10, 194:11, 194:12, 195:9
referred
148:22, 194:4, 229:18
referring
16:8, 17:9,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

20:21, 39:2, 75:1, 76:3, 77:7, 82:18, 93:10, 103:13, 122:12, 135:7, 157:11, 174:19, 175:11, 182:16, 182:19, 182:21, 183:1, 186:21, 197:9, 198:18, 201:8, 214:13, 239:5, 239:13, 242:5, 249:7
refers
54:8, 72:12, 72:16, 106:13, 165:22, 172:19, 175:15, 183:4, 188:1, 252:2
regarding
134:8, 193:6, 193:7, 229:17
related
7:13, 18:1, 18:5, 132:9, 132:15, 195:18
relationship
59:4
relative
125:11
relatively
166:3, 169:8, 170:4, 170:17, 172:4, 172:7, 172:18, 173:1, 173:8, 173:10, 173:16, 174:1, 174:7, 174:10, 174:19, 174:20, 174:22, 175:3, 175:6, 175:7, 175:11, 175:15, 186:6, 186:22, 229:20, 233:18, 234:4, 234:10, 234:15, 243:14, 245:22, 246:4, 247:3, 247:6, 251:12, 252:3, 252:13, 253:1
relevant
9:8, 222:13
relied
107:7, 109:5, 194:9, 194:10
relish
91:6
rely
202:7, 202:10
relying
108:21, 109:3
remark
226:5
remember
74:8
remote
5:11
remotely
5:15
removed
124:1
repeat
10:2, 11:14, 12:12, 13:5, 13:17, 15:3, 18:11, 23:11, 25:12, 26:12, 29:12, 30:18, 33:3, 36:10, 38:19, 42:7, 45:12, 46:8, 46:22, 48:2, 49:10, 52:6, 67:16, 71:20, 72:15, 73:9, 75:5, 79:12, 80:8, 82:14, 88:1, 91:18, 93:1, 93:22, 99:14, 100:14, 102:15, 104:8, 106:1, 108:4, 109:14, 111:15, 112:13, 114:3, 117:20, 119:22, 120:10, 121:1, 128:15, 129:15, 136:9, 137:19, 139:16, 139:22, 142:19, 148:1, 150:8, 152:22, 155:3, 160:13, 167:10, 171:1, 172:22, 178:14, 182:8, 183:11, 184:5, 196:21, 208:3, 217:7, 220:2, 221:5, 221:9, 226:22, 228:22, 234:8, 237:22, 239:21, 240:20, 241:21, 243:8, 243:21, 247:19
repeating
221:11
replace
154:21, 155:6, 155:22, 156:3, 156:4
replying
59:11
report
136:2, 138:14, 229:16
reported
1:22
reporter
6:8, 6:10, 117:5, 129:2, 158:11, 181:6, 218:17, 232:13, 254:1, 254:4
represent
109:2, 162:17, 162:21
representative
122:1, 202:8
represented
19:22, 245:18, 254:13
representing
5:12, 5:17, 5:19, 6:2, 6:9, 19:19
represents
110:10, 162:19
requested
253:19
require
29:9, 29:13, 46:20, 49:1, 49:11, 50:5, 50:9, 51:13, 52:8, 60:6, 62:5, 65:7, 114:2, 140:5, 140:21, 169:3
required
114:5, 250:17
requirement
30:14, 30:19, 45:8, 45:13, 48:3, 48:5, 48:12, 66:11
requires
44:19, 45:1, 45:19, 46:18, 47:2, 48:16, 51:8, 52:18, 53:1, 53:6, 56:1, 56:5, 56:12, 57:1, 57:10, 58:4, 58:17, 59:3, 60:22, 62:16, 63:1, 63:14, 63:20, 65:10
requiring
50:14
research
195:13
resistance
150:18, 221:19
resonances
190:12
respect
46:20, 47:4, 111:18, 112:1, 137:13, 157:9, 188:8, 193:19, 194:3, 195:13,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

205:10, 227:20, 229:6, 230:4, 244:12
respond
146:9, 147:20
response
8:9, 8:11, 188:11, 190:7, 191:1
responsive
189:10, 248:2
rest
123:9, 123:10, 209:1
result
65:6, 154:12, 177:16, 184:22, 185:3, 242:18, 245:4
results
36:22, 106:15, 238:3
resume
59:13
review
31:17
reviewed
185:18, 234:1
reviewing
25:4, 31:20, 42:6, 75:3, 117:19, 129:14, 135:12, 139:21, 143:19, 144:4, 148:21, 153:19, 155:2, 155:8, 156:20, 159:15, 163:9, 167:15, 170:13, 172:1, 172:21, 173:14, 174:4, 178:13, 180:6, 182:15, 184:9, 186:19, 188:7, 194:1, 200:4, 200:14, 201:3, 215:9, 226:21, 228:21, 230:2, 235:15, 236:2, 242:13, 242:20, 244:3, 245:19, 246:22
revise
23:20
right
7:5, 17:15, 19:12, 19:13, 21:1, 21:6, 24:17, 28:17, 32:6, 33:16, 33:22, 35:2, 46:18, 50:13, 65:17, 69:8, 72:4, 75:11, 85:19, 93:9, 94:13, 95:6, 96:8, 98:8, 98:16, 111:3, 117:9, 118:10, 119:1, 119:14, 123:14, 124:2, 124:19, 132:2, 134:2, 136:5, 136:11, 140:14, 151:7, 151:14, 151:20, 157:16, 159:12, 164:5, 166:13, 168:3, 171:17, 172:20, 173:3, 173:12, 175:13, 179:18, 179:22, 181:11, 191:7, 192:6, 192:18, 193:3, 193:17, 200:22, 201:10, 202:16, 204:1, 204:19, 204:22, 207:12, 215:16, 216:22, 219:16, 220:13, 220:19, 223:10, 225:17, 226:4, 228:6, 231:1, 231:12, 231:21, 232:1, 234:6, 236:9, 237:10, 238:13, 239:17, 239:19, 240:2, 240:18, 241:19, 242:3, 242:11
ripped
32:14
roadmap
115:8
robert
119:11, 130:1, 231:19
robustness
151:1
roll
42:14, 42:16
rotate
110:8, 235:12, 238:6
rotation
235:17
round
39:22, 40:1
rpr
1:22
rules
133:9, 141:15, 142:1, 146:6
run
60:12, 66:20, 78:3, 80:16, 81:10, 81:18, 83:10, 86:5, 87:12, 110:22
running
72:13, 72:17, 73:1, 73:20, 73:22, 74:1, 74:3, 80:13, 80:20, 81:6, 81:12, 81:14, 81:21, 82:6, 82:9, 83:6, 83:16, 84:1, 84:17, 84:22, 85:4, 85:12, 85:17, 86:2, 86:13, 86:20, 87:4, 89:7, 90:13, 90:20, 91:14, 91:22, 92:14, 93:11, 93:12, 96:6, 97:11, 97:19, 98:1, 98:14, 169:9, 173:17, 187:20, 205:5, 205:8, 248:10, 251:13
runs
77:22, 80:3, 80:4, 80:5, 80:10, 81:2, 82:8, 83:14, 84:7

S

said
13:6, 104:4, 104:9, 132:12, 146:1, 158:18, 171:21, 181:7, 198:6, 210:8, 239:7
sake
94:22
same
32:20, 33:4, 33:6, 34:6, 35:4, 35:13, 35:16, 139:20, 159:20, 185:7, 203:6, 203:20, 226:6, 231:2, 240:17, 240:22, 241:2, 241:4
sandwiched
183:21, 184:16, 184:21, 185:11, 185:20, 186:14
satellites
220:11, 220:18
satisfaction
208:22
saw
115:18, 124:14, 124:18
say
21:5, 39:13,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

40:17, 47:21, 61:7, 69:16, 74:6, 74:16, 84:14, 86:4, 89:21, 94:7, 94:8, 94:12, 108:22, 123:7, 132:20, 154:11, 168:2, 170:2, 173:19, 180:19, 209:18, 210:11, 223:1, 227:7, 230:20
saying
57:9, 64:14, 108:18, 123:7, 169:20, 176:18, 192:15, 192:22, 193:13, 197:7, 207:15, 217:19, 231:22
says
22:1, 28:1, 29:17, 45:21, 46:14, 89:22, 145:9, 150:5, 150:11, 164:5, 165:17, 169:10, 177:1, 178:3, 182:2, 183:19, 208:12, 209:12, 210:17, 214:1, 230:17, 231:4, 241:9, 251:8
scientific
223:21
scope
222:12, 223:12, 223:19, 224:20, 236:3, 236:16, 237:1, 237:6, 237:13, 237:21, 238:4, 238:10, 238:16, 239:12, 240:3, 249:4
screen
22:12
scroll
225:19
scrolling
226:3
seal
138:10
second
31:17, 42:4, 54:20, 55:1, 55:9, 71:18, 75:1, 76:5, 76:14, 77:6, 77:16, 77:18, 79:6, 81:10, 86:7, 86:16, 87:11, 87:12, 87:15, 97:18, 108:2, 143:17, 158:7, 158:10, 187:18, 188:3, 189:4, 190:12, 192:20, 200:2, 200:13, 201:2, 215:7, 225:16, 228:13, 229:12, 229:22, 230:1, 231:16
section
148:7, 245:17
sections
111:13, 141:12, 141:17, 144:6, 145:8, 149:18, 163:1, 163:4, 176:7, 178:7, 179:16, 179:21, 180:5, 181:5, 181:9, 181:13, 190:5, 191:3, 214:10, 214:12
see
20:21, 22:1, 22:11, 22:18, 23:12, 23:16, 24:19, 25:5, 30:4, 38:11, 41:17, 44:18, 44:22, 67:6, 69:21, 69:22, 70:5, 71:7, 93:19, 94:11, 98:10, 121:10, 121:12, 122:11, 122:14, 122:20, 123:2, 133:1, 147:12, 154:15, 158:22, 159:1, 159:7, 159:11, 159:14, 159:17, 159:20, 164:5, 164:10, 165:20, 176:4, 176:6, 176:13, 177:22, 178:3, 178:8, 181:16, 183:18, 184:15, 184:18, 187:12, 187:20, 199:10, 200:6, 200:16, 204:5, 205:6, 205:22, 206:5, 206:12, 206:17, 211:4, 224:6, 225:16, 226:11, 228:11, 230:17, 231:3, 232:16, 232:19, 233:2, 233:15, 233:20, 237:15, 240:7, 240:14, 241:8, 241:14, 249:13, 251:15, 252:5
seeing
209:4, 211:2
seeking
158:1
seem
36:19, 79:3, 79:4, 167:17
seemed
62:12
seeming
23:6
seems
169:12
seen
124:10, 124:21, 124:22, 125:2
segment
165:14, 165:19, 166:17, 169:7, 170:3, 173:15, 173:21, 187:9, 251:10, 251:11
selected
177:1
self-standing
40:18
self-supporting
68:9, 68:10
send
21:7
sense
37:8, 78:20, 91:2, 144:8, 144:11, 147:8, 148:8, 192:11
sent
32:4
sentence
127:6, 169:1, 169:2, 176:2, 176:4, 177:22, 181:16, 181:19, 184:15, 187:7, 217:4, 217:8, 218:8, 233:17
separate
192:2, 196:9
separated
160:21, 161:12, 162:18, 162:22, 163:3
separately
46:21
separating
54:21, 160:6, 181:21
separations
244:13
separator
165:14, 169:7, 169:10, 170:3, 173:15, 173:18, 182:19, 183:1, 183:4, 183:13,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

187:9, 200:17, 201:14, 202:3, 202:21, 203:1, 203:15, 203:18, 204:3, 204:4, 204:17, 204:18, 204:19, 204:21, 206:1, 206:8, 206:13, 207:5, 207:10, 208:16, 210:13, 213:16, 214:8, 214:10, 251:10, 251:11, 251:14
separators
205:3
sequentially
210:3
series
162:18, 163:21
serious
163:21
seriously
133:5
served
154:19
serves
153:6
services
219:1, 219:12
set
254:7, 254:20
sets
225:1
seven
248:10
several
109:22, 141:12, 201:18
shape
40:11, 41:6, 42:1, 42:10, 43:12, 44:2, 90:12, 91:13, 91:21, 120:8, 120:11, 120:13, 120:16, 135:3, 135:4, 135:7, 135:10, 135:16, 135:19, 137:17, 137:20, 138:3, 138:7, 235:13, 235:19, 236:7, 236:13, 236:21, 237:5, 237:12, 237:20, 238:1, 238:2, 238:7, 238:12, 239:3, 239:10, 239:18, 240:2, 240:17, 240:22, 249:1
shapes
40:2, 187:10, 188:22, 206:2
sheet
12:16, 32:19, 32:21, 32:22, 33:7, 33:12, 33:14, 34:1, 34:7, 34:13, 37:10, 37:12, 124:1, 158:20, 192:10, 192:17, 193:2
sheets
32:6
shielded
17:1, 17:3
shielding
10:20, 11:3, 16:12, 144:3, 177:2, 177:10, 177:12, 209:14, 213:15, 213:18, 217:15
shields
130:13, 131:7, 131:16, 134:19, 139:3, 139:19, 140:3, 140:19, 155:17, 172:12, 174:15, 175:10, 175:19, 246:9, 247:13
shock
172:13, 174:16, 175:19, 177:17, 179:3, 180:13, 186:9, 190:21, 246:10, 247:13
short
67:13, 68:2, 69:2, 199:1, 249:12
shorthand
254:1
should
8:18, 20:15, 21:8, 123:16, 161:21, 180:20, 225:16, 228:4, 230:11, 231:22, 232:3, 232:5
show
107:14, 249:1
showed
180:22, 226:7
showing
143:3, 206:1
shown
118:13, 121:16, 122:6, 122:9, 156:18, 165:11, 170:17, 172:7, 173:7, 174:10, 201:14, 202:3, 202:4, 239:6, 240:15, 246:4, 246:19, 247:6, 253:2
shows
122:16, 194:15
side
80:13, 81:6, 81:14, 81:21, 83:7, 84:2, 84:18, 86:14, 87:4, 95:1, 95:3, 95:5, 95:6, 95:7, 95:8, 95:14, 95:17, 95:19, 95:22, 96:1, 96:3, 96:9, 96:12, 96:16, 96:21, 96:22, 97:5, 97:6, 97:11, 97:13, 97:21, 98:1, 98:9, 98:11, 98:15, 98:16, 110:17, 226:17
sides
47:10, 80:20, 92:21, 93:3, 93:21, 94:2, 94:5, 94:19, 94:20, 95:10, 96:20, 97:7, 97:9, 136:1, 151:3
sideways
74:7, 74:13, 74:17, 85:13
signal
32:4, 171:15, 218:19, 221:18
signals
170:20, 171:3, 221:1
signature
253:18
signature-p1kal
254:23
significant
203:3, 250:5
significantly
201:21
silent
121:5, 157:9
similar
10:18, 215:12, 241:1, 241:4
simple
100:22
simplicity
74:20
simply
77:5, 78:12, 141:16, 143:1, 143:14, 191:11
since
65:19

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

single
32:14, 243:15
sir
6:21, 7:2, 7:4, 7:9
sit
216:5
sitting
12:3
situation
108:11, 226:17
situations
108:8
six
93:9, 93:19
size
188:10, 201:13, 202:17
sizing
12:22, 13:11
skill
81:9, 104:19, 106:17, 106:18, 109:9, 110:13, 112:4, 112:21, 113:21, 114:14, 118:16, 123:21, 131:20, 150:15, 152:13, 190:1
skipped
219:15
slightly
37:11
slip
7:2
slit
191:18
slitting
11:19, 12:1, 191:15, 191:16, 192:3, 192:9, 192:16, 193:1, 193:7, 193:15, 193:20, 194:3, 194:7, 194:15, 194:22, 195:5, 195:14, 195:16, 195:17, 195:21, 196:2, 196:4, 196:7
small
207:19, 209:16
smaller
36:8, 36:14, 37:11, 37:13, 201:13
smiling
133:1
smith
170:14, 172:2, 174:5, 177:13, 179:1, 180:7, 186:4, 190:14, 191:6, 194:11, 194:15, 195:9, 242:21, 245:20, 247:1
snarky
212:10, 212:11
solid
163:3
solution
140:7, 141:3
some
7:8, 11:1, 18:1, 19:18, 20:1, 28:13, 28:14, 31:8, 36:1, 37:8, 38:3, 94:10, 115:9, 116:8, 116:17, 123:16, 128:17, 131:11, 132:18, 137:4, 139:13, 139:17, 140:1, 140:17, 157:2, 164:16, 171:15, 171:16, 193:13, 194:6, 208:12, 209:18, 210:17, 215:2, 223:9, 224:6, 227:12, 236:5, 236:18
somebody
92:15
somebody's
74:5
someone
54:17, 77:1, 85:18, 96:7
something
6:21, 24:6, 106:2, 128:13, 170:20, 171:3, 192:10, 198:1, 216:19, 216:20, 222:2, 237:5, 238:15, 238:18
sometimes
10:7, 10:22, 40:17
somewhat
76:19, 236:1
somewhere
176:18
soon
59:14
sorry
5:11, 13:4, 40:13, 41:15, 41:16, 46:10, 52:13, 62:11, 63:10, 79:12, 80:8, 118:11, 122:12, 129:3, 133:2, 159:21, 164:2, 183:6, 187:4, 187:13, 196:16, 202:15, 204:18, 231:14, 232:22, 251:16
sort
8:21, 22:19, 83:1, 217:18, 223:9, 224:6, 239:3
sounds
197:20
south
3:6
space
8:21, 162:19
spaces
176:11
spacing
188:10, 240:18, 240:22
span
183:12
spanning
185:21, 186:14
spans
182:3, 182:10
speaks
234:22
spec
236:4, 237:7, 237:16
special
20:13, 20:15, 25:22, 99:4, 99:10, 99:18, 100:11, 100:17, 100:19, 101:10, 101:18, 103:2, 103:3, 103:9, 103:16, 104:6, 104:11, 104:22, 105:11, 105:21, 106:7, 107:17, 108:14, 109:3, 109:4, 109:13, 109:18, 111:9, 112:8, 112:15, 113:9, 114:2, 114:5
specialized
101:3
specific
10:13, 12:9, 12:10, 12:13, 14:7, 15:19, 16:3, 16:4, 18:5, 18:14, 19:1, 39:2, 39:3, 40:6, 41:9, 87:17, 88:20, 88:22, 91:5, 126:3, 130:22, 131:11, 142:4, 142:5, 143:6, 148:18,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

153:14, 157:2, 177:3, 195:15, 195:21, 198:3, 198:4, 215:15, 215:21, 216:21, 221:21, 224:1, 225:1, 236:17
specifically 10:16, 18:3, 43:19, 133:20, 157:22, 197:9, 215:10, 216:10, 236:6, 250:2, 251:6, 252:11, 252:18
specification 25:18, 25:21, 26:4, 26:22, 27:12, 47:9, 53:19, 56:8, 57:7, 58:2, 60:14, 73:17, 74:11, 99:5, 100:19, 101:4, 101:6, 101:11, 104:1, 104:18, 105:5, 105:8, 106:3, 106:5, 106:11, 106:12, 107:2, 107:4, 107:10, 108:3, 108:6, 108:9, 108:11, 108:19, 109:1, 109:6, 109:7, 109:11, 109:16, 109:20, 109:21, 109:22, 111:7, 111:14, 112:1, 112:8, 112:15, 112:19, 113:4, 113:13, 113:18, 114:6, 114:12, 141:2, 206:11
specifics 195:18, 223:5
specified 30:13
specify 30:11
spent 250:5
spherical 237:4
spin 39:16
spiral 14:10
sports 92:12
sputter 39:19
sputtering 39:18
square 40:15, 40:19, 78:18
st 5:9
stand 181:21, 199:3, 225:8
standard 32:5, 32:9, 32:12, 168:10
staring 94:7
start 77:12, 115:14, 144:9, 218:18
started 183:8
starting 116:2, 251:7, 251:20
state 2:10, 5:17, 48:5, 103:19, 128:14, 129:3, 254:5, 254:30
stated 35:9, 77:16, 79:22, 81:20, 83:6, 84:1, 84:17, 86:11, 117:13, 127:17, 128:20, 128:21, 155:9, 171:19, 181:3, 216:1
statement 18:22, 48:9, 73:13, 125:14, 125:16, 125:18, 231:18, 234:13, 234:14, 247:16, 247:21
statements 193:5
states 1:1, 5:6, 48:3, 127:8, 169:6, 173:22
stations 220:12, 220:18
step 15:6, 70:5
stickers 22:2
still 32:22, 33:6, 34:12, 34:19, 35:6, 35:19, 36:4, 36:5, 36:11, 66:21, 224:12, 230:11, 234:16, 238:19
stipulation 6:12
stop 24:5, 67:13, 68:2
stops 69:2
straightforward 79:4, 197:10
street 3:6, 3:13, 54:18
strict 78:7
strike 15:9, 17:5, 17:11, 24:18, 37:11, 41:3, 43:5, 44:21, 46:10, 55:20, 66:15, 75:14, 89:4, 111:3, 119:2, 119:18, 130:18, 132:3, 137:4, 140:14, 144:2, 157:16, 157:19, 160:2, 161:11, 164:2, 176:1, 176:14, 182:9, 191:7, 198:8, 215:20
strip 78:17, 135:13, 135:20, 136:5, 136:11, 136:15, 137:10, 137:16, 137:20, 232:21, 233:8, 233:12, 233:18, 234:15
structure 33:9, 95:15, 95:21, 202:22
study 20:4, 237:14, 238:22
subject 143:6
submitted 7:18, 8:8, 8:11, 247:15, 247:21
subsequent 163:12
subsequently 130:7, 165:9
substantial 20:8
substantially 206:18, 208:7, 210:5, 210:18
substrate 179:17, 180:5
suggested 96:19
suggests 172:16

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

suitable
176:8, 176:9, 176:10, 176:12, 176:15, 176:19, 176:21, 177:8, 177:14
sum
221:13
summarize
162:11, 169:18
summarized
145:7
summary
110:1
sun
196:17, 197:7
super
127:14
supervised
19:10
support
8:8, 8:11, 113:3, 113:18
supported
113:13
suppose
86:1, 89:17
supposedly
197:19
sure
6:7, 13:9, 18:12, 19:17, 21:4, 22:8, 23:5, 26:17, 27:3, 28:13, 31:7, 31:19, 33:11, 34:5, 40:7, 41:12, 42:5, 52:3, 62:22, 69:18, 72:6, 76:10, 78:5, 83:1, 94:3, 100:21, 117:8, 120:1, 124:21, 125:13, 125:16, 132:13, 133:4, 142:1, 142:20, 160:19, 187:19, 194:18, 196:22, 198:5, 202:14, 203:6, 216:12, 221:7, 221:12, 222:6, 222:11, 225:7, 226:4, 241:1
surface
40:21, 40:22, 43:18, 43:20, 43:21, 63:7, 63:8, 71:10, 93:17, 93:18, 94:6, 94:7, 94:8, 94:11, 94:13, 94:15, 95:2, 150:20, 151:6, 151:15, 151:16, 151:17, 151:18, 156:8, 156:16, 156:17, 204:11, 206:13, 206:19, 208:1, 208:7, 208:16, 210:5, 211:8, 213:10, 213:19, 214:22
surfaces
93:7, 93:9, 93:10, 93:11, 93:12, 93:19, 93:20, 94:1, 94:5, 94:19, 147:11, 148:15, 150:6, 150:12, 151:13, 152:3, 152:12, 153:13, 154:5
surrounding
55:8, 135:9, 221:16, 221:20
surrounds
135:16, 229:11
swear
6:10
switch
115:8
sworn
6:15, 254:7
syracuse
3:14, 6:2
systems
18:2, 220:22

T

t-shape
204:7, 204:13
t-shaped
204:12
tackle
92:15
tackled
74:7
take
32:20, 33:4, 34:8, 39:12, 39:14, 59:12, 59:20, 62:10, 65:17, 65:18, 65:22, 92:9, 114:16, 114:19, 142:16, 143:4, 146:10, 146:11, 181:14, 194:5, 199:1, 199:16, 212:17, 212:22, 225:4, 236:7, 249:12
taken
35:3, 254:9
takes
105:5
taking
25:17, 104:17, 133:5, 236:19
talk
22:6, 63:10, 88:14, 96:11, 132:5, 132:9, 132:14, 132:17, 134:2, 143:4, 146:21, 199:19, 200:18, 210:21, 210:22
talked
132:7
talking
35:1, 51:16, 51:20, 52:14, 52:16, 63:9, 63:11, 88:9, 95:21, 96:2, 96:3, 97:6, 145:10, 145:13, 145:18, 145:20, 199:20, 200:8, 200:20, 202:11, 203:6, 203:7, 203:10, 204:13, 204:16, 208:18, 210:3, 214:17, 233:16, 234:3, 234:4, 234:9, 234:10, 234:18
talks
110:1, 110:4, 234:16
tape-like
135:13, 135:20, 136:14, 137:10, 137:16, 137:20
tapes
10:19, 10:21, 11:2, 11:3, 16:5, 16:10, 157:13, 193:9, 194:7, 194:13, 194:16, 195:1, 195:10, 196:11
targeted
218:15, 218:22, 219:11
tasks
27:9
taught
184:21, 243:16, 244:11
teach
136:17, 144:13, 149:22, 166:19, 167:1, 210:15
teaches
109:21, 130:11, 131:14, 134:14, 134:17, 136:19, 137:6, 137:8,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

139:1, 144:14, 155:14, 166:16, 167:20, 168:6, 168:18, 173:15, 178:20, 178:21, 179:13, 180:1, 185:19, 186:12, 211:21, 213:14, 243:14
teaching
108:9, 108:12, 137:13, 138:9, 144:21, 145:3, 145:7, 147:6, 147:14, 148:3, 148:19, 148:22, 149:7, 151:22, 152:9, 153:12, 166:3, 167:3, 168:12, 170:10, 170:12, 172:15, 177:8, 180:22, 182:21, 183:8, 183:18, 184:11, 185:10, 185:13, 185:15, 208:11, 211:2, 211:3, 211:4, 212:2, 212:3, 241:8, 242:16, 242:20, 245:2
teachings
108:19, 108:22, 148:6, 148:10, 167:17, 169:14, 171:22, 177:7, 188:10, 190:5, 190:14, 191:4
technical
26:5, 27:1, 27:13, 104:2, 109:8, 112:2, 114:13, 193:14, 218:13, 218:20
technically
44:7
technician
3:18, 21:9, 21:12, 21:22, 22:8, 69:12, 69:15, 69:18, 158:14, 248:15, 248:18
technique
13:16, 13:19, 14:4, 14:10, 14:14, 14:21, 15:11, 15:16
technologies
1:5, 5:5
telecommunication
217:12, 217:13
telecommunications
17:22, 218:14, 218:21, 219:15, 219:17, 219:22, 220:4, 220:8, 220:9, 220:10, 220:16
tell
27:19, 70:10, 216:5, 236:6, 251:16
telling
188:21
tells
89:18
ten
53:5, 62:8, 202:12, 225:6
tend
76:3
term
25:6, 26:9, 27:4, 28:6, 46:4, 46:9, 46:11, 55:20, 55:22, 56:11, 72:7, 99:5, 101:1, 101:5, 101:19, 103:3, 103:12, 103:17, 105:21, 106:7, 111:16, 113:1, 113:16, 139:13, 139:18, 140:2, 140:18
terminate
162:22
terminated
163:2, 205:1
terminates
123:9
terminology
83:13
terms
19:19, 26:19, 54:15, 54:16, 55:20, 74:11, 93:7, 95:10, 103:10, 103:21, 104:7, 104:13, 104:15, 112:6, 112:9, 112:16, 113:8, 113:11, 113:20
test
20:4, 106:14, 149:5, 221:15
testified
6:15, 145:1, 245:1
testify
138:7, 147:21
testifying
97:2, 137:5, 250:6
testimony
9:7, 9:20, 68:17, 83:2, 102:8, 132:14, 142:22, 143:14, 145:10, 145:14, 145:20, 194:2, 194:19, 198:22, 229:16, 248:1, 248:5, 252:8, 254:10
tests
225:2
text
149:19, 149:21, 176:22, 185:18, 186:12
th
254:21
thank
6:22, 21:12, 24:16, 101:15, 105:17, 158:13, 200:12, 228:1, 234:21, 235:11, 248:20
therefore
60:16, 64:11, 64:19, 90:21, 175:17, 177:10, 236:18
thereof
147:11, 150:6, 150:12, 151:13, 152:3, 152:12, 154:5
thick
208:18, 232:21, 233:8
thicker
230:8, 232:5, 232:8, 232:9
thickness
136:14, 137:9, 155:13, 210:16, 210:18, 210:19, 214:3, 230:18, 230:21, 231:5, 231:7, 231:11, 231:17, 231:20, 231:22, 232:4, 233:8, 233:13, 233:18, 234:5, 234:11, 234:22
thicknesses
176:12
thin
208:19, 214:4, 229:20, 230:5, 233:18, 234:4, 234:10, 234:15, 235:2, 235:7
thing
118:9, 118:12,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

118:17, 119:5, 226:6, 228:3
things
10:7, 21:20, 68:21, 76:19, 104:22, 105:11, 105:20, 106:4, 107:12, 111:20, 170:7, 188:21, 196:12, 196:22, 197:7, 197:11, 198:6, 198:8, 198:9, 198:15, 198:20
think
23:3, 24:13, 35:9, 39:10, 54:17, 62:14, 67:18, 69:4, 71:8, 73:12, 73:16, 73:22, 74:10, 74:16, 76:3, 76:11, 76:13, 76:20, 77:6, 77:11, 77:16, 78:7, 79:4, 80:22, 81:8, 85:21, 86:6, 86:11, 86:16, 87:8, 89:11, 95:3, 96:10, 114:18, 118:19, 133:8, 142:20, 143:5, 157:8, 159:17, 169:18, 180:16, 182:21, 185:7, 187:4, 191:22, 192:11, 193:4, 200:7, 200:9, 200:11, 205:8, 208:9, 212:7, 222:11, 227:7, 234:13, 248:10
thinking
9:16
thought
26:19, 52:14
three
30:5, 30:10, 43:1, 48:21, 49:20, 51:3, 53:14, 68:20, 69:2, 73:19, 151:7, 198:14, 228:11, 228:18, 229:3, 229:17
three-layer
151:19, 194:16
threshold
177:4
through
39:15, 39:18, 78:21, 108:2, 149:4, 149:20, 149:22, 162:5, 164:3, 164:9, 165:7, 168:6, 168:18, 189:20, 189:21, 191:17, 191:20, 191:21, 192:1, 192:5, 192:13, 192:17, 193:2, 193:18, 193:22, 210:2, 229:16, 242:14, 242:15, 243:2
tied
238:15, 238:17
time
5:10, 59:10, 66:3, 66:6, 106:18, 109:9, 110:14, 112:5, 112:21, 113:22, 114:14, 114:18, 115:2, 115:5, 131:20, 143:9, 143:12, 146:16, 146:19, 150:16, 161:6, 161:9, 164:19, 164:22, 199:4, 199:8, 212:11, 225:9, 225:12, 248:9, 249:16, 249:19, 250:6, 253:16
times
21:6, 53:5, 59:9, 59:18, 62:8, 139:8, 198:14, 201:13, 201:18, 202:12, 203:2
tiny
203:22
today
5:12, 6:8, 6:18, 9:20, 12:3, 98:18, 132:6, 132:14, 133:10
today's
5:9, 5:11, 253:15
together
62:16, 63:1, 114:10
told
40:14, 40:16, 62:8, 89:16, 238:17
took
19:14, 39:13, 104:21, 105:3, 105:10, 105:19, 106:4
top
27:18, 29:16, 32:21, 33:5, 33:11, 33:14, 34:9, 34:18, 35:4, 35:13, 35:17, 36:7, 37:15, 37:16, 40:21, 43:18, 43:20, 59:7, 62:18, 63:3, 63:7, 63:11, 71:4, 71:10, 74:19, 74:22, 75:6, 75:21, 77:9, 92:21, 92:22, 93:3, 93:13, 93:15, 93:17, 94:6, 94:8, 94:9, 94:14, 95:1, 95:2, 95:8, 95:10, 97:9, 97:10, 106:11, 123:4, 123:7, 150:20, 151:5, 151:15, 151:17, 156:7, 156:16, 157:3, 158:20, 201:21, 202:11, 203:3, 203:7, 203:8, 204:1, 204:8, 204:12, 204:13, 205:3
top-level
251:9
torn
32:14
total
44:8, 197:10
totally
249:14
toward
74:3
towards
75:11, 75:12, 106:21, 110:17
traced
206:7
trademark
1:1, 5:7
traffic
89:18, 89:21
transcript
4:12, 9:4, 107:14, 143:3
traveling
90:2, 90:9
trial
1:3
tried
21:6
trouble
27:9, 55:10, 78:21, 78:22,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

226:2
true
113:5, 254:10
truth
133:16, 133:17
try
7:2, 31:5, 55:19, 68:17, 94:4, 162:20, 211:6, 224:14
trying
31:8, 40:4, 40:13, 52:17, 63:10, 68:15, 103:14, 173:9, 191:18, 192:2, 192:9, 198:1, 218:7, 246:12
tube
119:20, 120:2, 120:8, 120:11
tuesday
1:16, 254:17
turn
69:5, 90:1, 90:4, 157:18, 162:4, 164:1, 165:15, 171:10, 175:21, 177:19, 183:15, 230:14, 232:10, 236:14, 240:8, 249:22, 250:2, 251:3
twice
230:21
twist
237:19, 238:1, 238:5, 249:2
twisted
11:12, 11:15, 11:17, 16:15, 16:17, 17:2, 17:4, 54:19, 54:20, 54:22, 55:1, 55:8, 55:9, 228:12, 228:13, 229:12, 237:2, 237:8, 237:17, 238:12, 239:8, 239:10, 249:8
twisting
235:17, 235:20, 236:4, 236:5, 236:18, 236:22, 239:6
twitted
16:14
two
7:18, 21:6, 21:20, 23:17, 24:1, 24:4, 24:9, 24:11, 24:22, 29:19, 29:22, 31:2, 38:3, 45:6, 46:16, 47:19, 55:4, 55:6, 56:19, 64:2, 65:12, 66:12, 67:11, 67:21, 68:2, 68:19, 68:22, 71:7, 71:9, 71:13, 75:10, 89:22, 93:9, 93:10, 93:12, 98:18, 102:3, 102:6, 108:8, 117:2, 118:6, 118:8, 126:10, 126:12, 127:2, 127:5, 127:11, 127:13, 127:20, 127:22, 128:8, 128:10, 129:6, 129:8, 130:4, 130:6, 137:1, 137:3, 138:17, 138:19, 140:11, 141:6, 141:8, 145:8, 152:6, 152:19, 153:3, 153:7, 153:9, 166:21, 168:1, 168:9, 168:21, 169:16, 179:18, 184:3, 184:7, 185:1, 185:6, 185:14, 203:2, 203:10, 207:13, 229:10, 235:2, 242:2, 247:15, 247:20, 250:10
tying
198:21
type
167:7, 167:12, 196:5, 196:8
typical
233:18
typically
39:11, 40:17, 124:15, 221:1

U

um-hmm
75:22, 90:10, 93:16
unacceptable
212:18
unclear
135:22
unconventional
95:4
under
116:15, 117:13, 133:13, 142:2, 196:17, 197:6, 220:7, 224:1
understandable
104:16
understanding
19:12, 27:10, 28:12, 30:1, 31:1, 31:4, 39:4, 48:15, 54:8, 54:14, 66:19, 73:5, 77:1, 78:7, 99:8, 99:15, 100:7, 100:22, 101:5, 101:21, 106:16, 106:17, 107:8, 114:11, 123:17, 125:19, 136:12, 144:20, 150:14, 152:12, 164:13, 165:3, 165:6, 165:21, 166:2, 166:15, 170:9, 173:5, 174:3, 175:3, 184:10, 186:20, 191:19, 198:21, 200:5, 202:9, 202:15, 227:8, 235:22, 236:12, 242:16, 245:2, 246:17, 248:4, 250:6, 252:18, 252:22
understands
121:21
understood
8:4, 9:18, 42:15, 43:7, 47:11, 48:17, 52:21, 82:12, 85:4, 125:13, 125:14, 125:16, 125:17, 171:6, 206:4, 206:9
unfair
62:12
uniform
210:18
united
1:1, 5:6
unmarked
22:5
unrelated
37:8, 38:4
unshielded
16:13
until
85:20
unwrapped
41:7
upcoming
22:3
usage
62:4, 89:1,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

89:3, 89:6
use
85:2, 95:9, 105:7, 113:20, 120:15, 166:11, 168:5, 170:6, 172:18, 189:5, 192:1, 208:11, 217:12, 230:6, 242:15, 242:17, 245:3
uses
168:16, 169:2
using
10:17, 12:1, 27:11, 74:9, 103:21, 168:11, 171:14, 173:1, 244:5
usually
44:5
utilization
144:21
utilized
106:10, 111:17, 162:12, 164:7
utilizes
105:5
utilizing
18:19

V

variables
223:22
variation
210:20
varies
101:2
variety
176:8, 187:10, 216:2, 224:13
various
13:22, 16:1, 39:15, 177:5
venture
31:14
version
225:15
versus
5:5, 225:3
via
221:12
video
5:10, 5:14
videographer
3:19, 5:2, 5:12, 6:4, 6:7, 66:2, 66:5, 115:1, 115:4, 143:8, 143:11, 146:15, 146:18, 161:2, 161:5, 161:8, 164:18, 164:21, 199:3, 199:7, 225:8, 225:11, 249:15, 249:18, 253:14
videotaped
1:14, 2:1, 5:3, 133:20
view
44:13, 122:19, 157:12, 220:21, 220:22, 243:4, 243:9, 243:17, 243:22, 246:12, 251:10
violating
141:15
virtually
1:15, 2:2, 254:16
visually
42:14
voice-identify
5:16
volume
16:17

W

wafer
39:22
wait
34:22, 204:18
waiver
40:1
want
7:16, 22:2, 23:6, 28:13, 32:8, 37:6, 41:11, 43:9, 53:21, 55:19, 59:17, 62:13, 65:20, 67:4, 71:3, 74:10, 83:1, 87:15, 88:13, 88:14, 88:17, 88:19, 89:22, 90:1, 95:3, 96:11, 101:8, 102:12, 102:17, 107:15, 107:19, 114:16, 114:17, 116:8, 132:13, 133:4, 138:2, 141:22, 159:14, 159:16, 180:15, 181:14, 185:8, 191:9, 191:10, 191:14, 194:19, 198:5, 205:2, 206:22, 207:3, 212:21, 223:7, 233:3, 249:12
wanted
24:13, 76:9, 77:14, 94:4, 106:2
wanting
23:1
wants
169:15
waterproofing
10:22
way
7:12, 9:17, 13:8, 27:8, 34:9, 39:10, 42:12, 42:13, 43:10, 44:13, 59:17, 62:13, 73:21, 94:16, 121:15, 154:18, 191:16, 202:21, 206:7
we'll
208:22
we're
52:15, 59:20, 59:22, 60:1, 63:9, 95:21, 114:19, 142:19, 159:19, 200:7, 203:6, 203:20, 225:5, 248:10, 250:3
we've
55:14, 73:16, 77:21, 78:2, 79:22, 85:11, 142:22, 149:19
webster
27:21
welcome
65:18, 115:7
well-understood
172:11, 174:14, 175:9, 175:18, 190:19, 246:8, 247:11
went
65:19, 132:7
whatever
65:19, 68:11, 147:21
whatsoever
91:2
whenever
55:16
whereas
84:5, 85:1, 87:7, 162:19, 163:2
whereby
10:7, 188:10
whereof
254:20
whether
36:12, 52:18, 135:2, 135:3, 147:19, 178:5,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

178:19, 179:15, 180:3, 180:20, 181:3, 181:7, 181:12, 224:15, 246:13, 246:14
white
94:9, 95:1
whole
51:18, 52:16, 118:9, 118:11, 118:17, 119:5, 133:16, 148:7, 222:15
wide
176:8, 187:10
wider
201:18, 201:21, 202:12
width
13:1, 13:11, 181:21, 182:4, 182:11, 183:12, 185:22, 186:15, 204:14, 205:9, 205:10
william
3:4, 5:19
willy-nilly
190:3
wire
11:17, 16:15, 16:17, 17:4, 211:13
wires
211:15
wished
142:5
withdraw
188:18
within
18:7, 18:15, 19:3, 57:15, 138:7, 163:6, 209:21, 214:19, 214:21, 214:22, 216:4, 224:16, 254:4
without
124:19, 206:2, 221:11
witness
4:3, 6:11, 6:13, 23:6, 23:9, 25:4, 31:20, 42:6, 55:15, 75:3, 102:18, 103:1, 111:4, 117:19, 129:14, 133:13, 135:12, 139:21, 142:17, 143:1, 143:5, 143:19, 144:4, 146:8, 148:21, 153:19, 155:2, 155:8, 156:20, 159:15, 163:9, 167:15, 172:21, 173:14, 178:13, 182:15, 184:9, 186:19, 188:7, 194:1, 200:4, 200:14, 201:3, 212:16, 212:20, 212:22, 215:9, 218:18, 226:21, 228:21, 230:2, 235:15, 236:2, 242:13, 244:3, 253:18, 254:6, 254:11, 254:20
wonderful
197:20
word
24:14, 29:4, 29:6, 46:1, 52:15, 57:1, 57:10, 58:4, 59:3, 60:6, 60:11, 61:14, 62:4, 78:7, 105:13, 120:15, 127:7, 127:15, 168:6, 168:11, 168:16, 170:6, 170:20, 171:3, 172:18, 173:1, 174:19, 176:21, 181:17, 199:16, 212:6
words
29:5, 29:7, 54:9, 62:4, 105:7, 112:22, 113:15, 114:9, 151:9
work
8:20, 19:18, 33:19, 33:21, 40:4, 57:22, 93:7, 104:14, 192:16, 193:1, 195:6
worked
11:19, 12:22, 13:10, 13:15, 13:18, 13:21, 14:3, 14:9, 14:13, 14:16, 14:18, 14:20, 15:4, 15:9, 15:10, 15:14, 16:9, 18:20, 19:16, 196:2, 196:7, 196:9, 215:5, 215:11, 216:1, 216:8, 216:13, 216:15
working
8:21, 10:15, 20:2, 36:18, 197:3, 197:13, 215:15, 215:19, 215:22, 216:10
works
191:16
world
124:11, 124:14, 124:18
worry
67:5
wouldn't
18:21, 77:12, 78:6, 96:14, 177:11, 192:1, 195:6, 202:7, 214:22
wrap
59:13, 59:20
wrapped
16:1, 16:10, 42:10, 66:12, 66:17, 66:21, 119:21, 120:2, 120:9, 120:12, 124:2, 135:14, 136:16, 137:11, 200:17, 240:5
wrapping
13:16, 13:19, 14:1, 14:22, 15:6, 15:19, 16:5, 67:2
wraps
121:15
wrote
219:4

Y

yeah
10:18, 16:15, 20:22, 21:19, 23:2, 23:12, 24:15, 34:19, 35:22, 42:20, 46:9, 47:2, 49:11, 52:17, 55:18, 67:17, 79:14, 80:10, 82:15, 88:2, 90:8, 91:19, 94:1, 99:15, 100:15, 102:16, 104:9, 105:19, 109:15, 112:14, 121:2, 132:7, 135:10, 141:21, 153:1, 161:4, 167:11, 171:2, 182:9, 187:15, 201:6, 201:19, 207:18, 226:2, 228:8, 231:1,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

234:9, 238:1, 239:22, 240:21, 241:8, 247:20, 248:12, 253:11
years
19:15, 19:22, 219:2
yellow
70:1, 71:1, 71:11, 71:16, 71:22, 73:2, 73:5, 73:7, 73:10, 73:14, 73:19, 75:11, 75:15, 75:20, 76:12, 79:20, 79:22, 80:2, 80:6, 80:11, 80:19, 82:1, 83:8, 84:3, 84:19, 84:20, 85:7, 87:7, 87:22, 88:4, 95:13, 95:16, 96:15, 97:4, 97:21, 98:3, 98:6, 98:10, 199:14, 201:14, 202:3, 203:7, 204:19, 204:21, 226:12, 227:3, 227:9, 227:19
yellow-colored
75:13
yep
204:20
yes-or-no
111:10, 140:16
york
3:14, 6:2
yourself
217:21, 218:3, 219:7, 236:9

Z

zoom
22:13, 45:4
zoomed
204:7

.

.2700
3:15
.9600
3:8

0

0/7/24
254:28
00
161:6, 204:22
01061
1:11, 5:8
03
66:6
030
4:13, 17:8, 20:17, 21:8, 31:17, 32:2, 36:21, 37:5, 37:8, 37:22, 38:2, 38:4, 38:9, 38:15, 38:20, 39:12, 41:2, 41:6, 41:10, 42:22, 49:16, 64:3, 87:18, 88:6, 91:9, 102:1, 139:13, 139:18, 140:2, 140:5, 140:18, 140:21, 141:2, 196:19, 222:3, 228:7, 250:1, 252:18, 253:1
036
4:21
039
194:11, 194:15

1

1
143:9, 143:12, 146:16, 146:19
10
4:20, 66:6, 110:3, 110:7, 199:13, 199:17, 207:7, 225:18, 233:19, 234:16
100
17:15, 203:2, 206:6, 206:18
1001
4:13, 21:8, 22:2, 22:10, 250:1
1009
4:16, 115:18, 115:21
1010
4:19, 161:20, 162:1, 251:5
1013
4:21, 232:11
108
149:1, 153:22, 157:7
11
32:5, 32:10, 32:13, 115:2, 178:1, 182:22
110
41:17, 41:19, 41:21, 42:1, 42:9, 102:2, 155:10, 181:21, 182:20, 183:2
115
4:16
116
193:21
12
1:17, 115:5, 143:9, 158:20, 175:22, 181:15, 183:8, 189:19, 204:22, 208:18, 210:16, 214:4, 254:17
120
181:2, 183:1, 189:2
125
3:13
13
4:15, 5:10, 70:13, 70:14, 70:22, 72:21, 73:7, 73:10, 77:8, 79:8, 82:2, 83:9, 83:13, 84:4, 84:21, 92:20, 93:2, 93:10, 97:11, 225:15, 225:19
13,622,683
4:16, 115:22
13202
3:14
137
71:4, 71:6, 71:22, 75:4, 76:1
14
188:12, 189:21, 236:19
149
206:11, 206:12, 208:10, 209:4
15
130:10, 130:14, 134:17, 134:20, 138:22, 149:4, 149:20, 154:3, 154:13, 154:22, 155:6, 155:13, 155:19, 156:1, 156:3, 156:4, 156:5, 158:20, 229:20, 230:5, 233:9, 234:12, 235:13, 235:19, 235:22, 236:6, 236:13, 236:19, 236:21
150
17:16, 206:16, 208:11, 209:4
158
4:18
16
236:19

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

161
194:3, 195:3
162
4:19
17
4:18, 135:15, 136:16, 137:12, 158:8, 158:17, 158:18, 158:21, 159:14, 159:18, 160:20, 161:18, 231:3, 232:17
175
244:12
19
159:17, 161:9
199
4:20

2

2
161:6, 161:9, 164:19, 164:22
20
65:22, 144:7, 147:7, 159:17, 254:21
2001
8:7
2012
8:10
2023
1:11, 5:8
2024
1:16, 5:9, 254:17
2027
254:21
21
1:16, 5:9, 115:5, 151:9, 151:10, 254:17
22
4:13, 143:12, 149:4, 149:20, 151:11, 154:3, 181:17, 183:9, 187:5, 187:14, 241:6, 241:8, 242:16
225
3:6
23
147:7, 165:16, 235:8, 235:10, 239:5, 251:6, 251:7, 251:18, 251:20
232
4:21
24
115:15, 136:2, 189:21
248
4:23
249
4:7
25
59:9, 59:18, 122:13, 171:11, 171:20
254
1:21
26
154:11
27
146:16, 249:16, 254:21
28
164:19, 176:3
29
146:19

3

3
199:5, 199:8
30
164:22, 208:13, 209:17, 214:6, 219:2, 235:12, 235:18, 236:20
300
102:4, 200:17, 201:17
302
102:3
304
102:4
306
102:5, 107:2
310
200:11, 200:17, 200:22
315.425
3:15
33
225:9, 241:9
34
189:20, 249:19
378
200:9
39
253:16, 253:17, 254:18
3b
41:14
3c
107:3
3e
41:13, 41:15, 41:16

4

4
144:15, 225:9, 225:12
40
66:3, 208:14, 225:12
4250
1:22
43
110:1, 199:5
45
233:16
48
189:20
4a
106:12
4b
106:14

5

5
249:16, 249:19, 253:16, 253:17, 254:18
50
208:15
538502
1:20
54
199:8
55402
3:7
58
230:15, 251:7, 251:20
59
234:20

6

6,998,537
1:12
60
208:15
612.436
3:8
62
144:15, 148:10, 149:22, 154:8, 165:17
64
165:17, 171:11
641
172:2, 174:5, 180:8, 247:1
67
149:22, 154:9
69
4:15
6a
16:19, 16:22, 216:2
6th
3:6

7

710
241:10
77
115:14, 116:3, 116:6, 118:14,

CommScope Exhibit 1048
CommScope v. Belden
IPR2023-01056

121:10, 136:3
78
126:15, 128:14, 128:18, 129:21, 129:22, 134:9
79
129:22, 130:8, 134:9
794
194:11
7a
240:11, 240:15, 240:18, 240:21, 242:14, 243:2
7b
240:11, 240:15, 240:18, 240:22

8

8
1:17, 5:10, 254:17
8-mill
232:21, 233:7
81
154:10
840
165:19, 169:7, 170:3, 173:7, 173:15, 173:18, 173:21, 251:10, 251:11, 251:14
8a
162:5, 162:8, 162:21, 164:9, 165:6, 165:11, 188:22, 205:19, 205:22, 207:5
8c
164:9, 165:11
8d
162:5, 162:7, 162:15, 162:19, 163:2, 163:6, 163:12, 163:16, 164:11, 164:13, 165:3, 165:8, 165:10, 165:13, 168:17, 170:18, 172:7, 172:16, 172:19, 173:2, 173:7, 174:10, 175:4, 189:1, 245:9, 245:15, 245:17, 246:4, 246:19, 247:6, 251:9, 252:7, 252:11, 253:3

9

9
66:3
90
90:4, 204:22
935
251:4
98
206:19, 210:6
99
209:21