

THE UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

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EMPIRE TECHNOLOGY	*	NO. 2:23-CV-123-JRG-RSP
DEVELOPMENT, LLC	*	
	*	Marshall, Texas
VS.	*	
	*	9:01 a.m. - 10:33 a.m.
SAMSUNG ELECTRONICS COMPANY,	*	
Ltd., et al	*	January 22, 2024

* * * * *

MARKMAN HEARING

BEFORE JUDGE ROY S. PAYNE
UNITED STATES MAGISTRATE JUDGE

* * * * *

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Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 **APPEARANCES:**

2 For the Plaintiff:

3 MR. NATHANIEL T. BROWAND
4 MR. CHRISTOPHER J. GASPAR
5 **Milbank Tweed Hadley & McCloy, LLP**
6 55 Hudson Yards
7 New York, NY 10001

8 MS. ELIZABETH L. DeRIEUX
9 **Capshaw DeRieux, LLP**
10 114 E. Commerce Avenue
11 Gladewater, TX 75647

12 For the Defendants:

13 MR. MARC J. PENSABENE
14 MS. LAURA B. GORE
15 **O'Melveny & Myers, LLP**
16 1301 Avenue of the Americas
17 Suite 1700
18 New York, NY 10019

19 MR. DAVID DEHONEY
20 Principal Legal Counsel
21 **Samsung Electronics**
22 New York, NY

23 MS. MELISSA R. SMITH
24 **Gillam & Smith, LLP**
25 303 South Washington Avenue
Marshall, TX 75670

Courtroom Deputy:

BECKY ANDREWS

Court Reporter:

ED REED

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 THE COURT: Good morning.

2 MS. SMITH: And we're ready to proceed.

3 THE COURT: All right, thank you, Ms. Smith.

4 I will also note for the record that
5 earlier this morning we distributed to counsel for
6 both sides a set of preliminary constructions of the
7 disputed terms. I want to emphasize that the intent
8 of issuing those is not to prevent either side from
9 arguing whatever positions they believe are
10 appropriate.

11 I, instead, intend this as just a way to
12 allow counsel to focus their arguments where they think
13 the Court may have most missed the mark. And I'll note
14 that I do reserve the right to alter these preliminary
15 constructions and not uncommonly do change them based
16 on the arguments received at this hearing. So I hope
17 they will be taken in that spirit.

18 I also want to note that two of the
19 preliminary constructions have bracketed notes and the
20 intent of those notes is not that they will be part of
21 the construction. That is just to let counsel know
22 that even though "plain and ordinary" is the
23 construction in the order, if nobody changes my mind
24 at the hearing, what's in that bracketed note will be
25 reflected in the order and, of course, would govern

Edward L. Reed

EdReedCR@aol.com

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1 the experts. So that is the intent of the bracketed
2 information.

3 I have reviewed the technology tutorials
4 offered by both sides, but I'm happy to hear any
5 additional argument on the technology, as well as on
6 the disputed terms.

7 And having said all that, I'll turn it
8 over first to counsel for Plaintiff.

9 MR. GASPAR: Thank you, Your Honor.

10 MS. DERIEUX: May I approach with the slides,
11 Your Honor?

12 THE COURT: Yes, Ms. DeRieux.

13 MR. GASPAR: Thank you, Your Honor. Chris
14 Gaspar for Plaintiff Empire. We want to begin, of
15 course, by thanking the Court and its team for
16 carefully considering the tutorials, the briefs, and
17 for providing the guidance in the preliminary
18 constructions.

19 With those preliminary constructions, if
20 it pleases the Court, I will plan to address the three
21 limitations that are the first three, which I'll
22 correspond to one patent. And my colleague,
23 Mr. Browand, will address, to the extent there is any
24 need for argument, the final three, which concern the
25 '331 patent.

Edward L. Reed
EdReedCR@aol.com
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1 THE COURT: All right.

2 MR. GASPAR: I, as advocate, would never
3 presume to be able to start an argument like this with
4 a question of the Court. However, I have one and I'm
5 not going to start with it. I'll start with a bit of a
6 presentation that warms up to it, but it will lead to a
7 question concerning this first disputed claim term, "in
8 accordance with".

9 THE COURT: You will not be the first lawyer
10 to ask me questions about the preliminary
11 constructions, so don't hesitate. I'm not guaranteeing
12 an answer, but you're welcome to ask the question.

13 MR. GASPAR: Thank you.

14 The way we as Plaintiffs understand the
15 dispute between the parties over this particular
16 limitation may have already been resolved by the way
17 Your Honor has suggested in the preliminary
18 construction that this claim term should be understood,
19 but I do want to make sure that we clarify it. And
20 the clarification that I'm seeking is: Does this
21 preliminary construction include what I will call both
22 embodiments, both embodiments that the two parties have
23 been discussing in the brief?

24 And so what I might suggest is that
25 before going further, I could just remind those in the

Edward L. Reed
EdReedCR@aol.com
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1 courtroom of the two embodiments that we are, I
2 believe, talking about, both sides.

3 The first one on I think slide 5, please,
4 is I believe an embodiment that both sides understand
5 the "as indicated by" language to cover. And this is
6 a situation where, starting in the blue box, you have
7 shown on the screen a "mode selector" in the base
8 station. So that big box, the biggest one there on the
9 right side, is the base station. And within it is a
10 colored-in-blue smaller box, the mode selector. And
11 that mode selector then following that highlighted blue
12 line send a signal out to the mobile station, which is
13 the smaller rectangle on the top left, and then into
14 the controller and then back into the transmission
15 elements.

16 So I believe both sides understand that
17 this embodiment is covered by the "as indicated by"
18 language. And what I would seek I guess clarification
19 on is, flipping now to slide 7, there is a second
20 embodiment that's disclosed in the patent which
21 contemplates the controller in the mobile station
22 selecting because of an override that is performing.

23 And the language that explains this
24 override condition is found on the next slide, slide 8,
25 but it's also found in a portion of the patent that I

Edward L. Reed
EdReedCR@aol.com
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1 will show the Court. I don't happen to have it on the
2 slide. But starting with what is on the slide, we have
3 a disclosure in text that's explaining this override
4 embodiment. And if it is the case that Your Honor's
5 preliminary construction "as indicated by" includes
6 this second embodiment, then that language is not
7 something that we would need to dispute or ask Your
8 Honor to change the text of.

9 So that is the longwinded warm up to
10 maybe a request for clarification in the intent of "as
11 indicated by," noting that the word "indicated" does
12 have flexibility that we, as advocates seeking to
13 obtain this morning, does seem to cover both
14 embodiments.

15 THE COURT: You know, the passage in column 11
16 starting at line 50, which you've got up on the slide
17 now, would be an indication to me that that embodiment
18 is not what is addressed in the claim we're dealing
19 with that calls on the selection to be made based on
20 the control signal. This embodiment is talking about
21 overriding that selection based on some other criteria.
22 How is that embodiment consistent with what the claim
23 is calling out.

24 MR. GASPAR: So, if I may switch to the
25 document camera for just a second and show Your Honor a

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EdReedCR@aol.com
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1 portion of the patent.

2 THE COURT: And I do have the patent in front
3 of me, so feel free to go anywhere in it.

4 MR. GASPAR: Thank you, Your Honor. This is
5 at column 10, line 40 to 43, which is the portion that
6 I've shown on the screen now through the document
7 camera and put a blue box around.

8 THE COURT: All right.

9 MR. GASPAR: This portion of the disclosure
10 and text occurs before the portion that was just shown
11 on slide 8, the portion from column 11. And this is
12 the introduction to what comes later in column 11.

13 So what it appears to us to convey is
14 that the override example is intended to be one of the
15 controller selection examples. It references that
16 there will be later discussion about this. But this
17 text really should be married with the text from column
18 10, we believe. And this embodiment, the override
19 embodiment I've been calling it, we believe, should be
20 included in the construction of the "in accordance
21 with."

22 THE COURT: How is that consistent with the
23 language of Claim 25 or, for that matter, 29?

24 MR. GASPAR: So the operative language in both
25 of those claims -- and I'll remove the document camera

1 and maybe request to go back to slide 4. So the
2 language here in Claim 25 and the same language appears
3 in the other independent claim is quite simple. And
4 what it conveys is that the controller receives the
5 control signal. I don't believe anyone is talking
6 about or disputing that.

7 And the controller does something else,
8 which is to select between the two modes. And so the
9 way that that selection happens, we submit, would
10 include either of the two embodiments.

11 THE COURT: How is overriding the selection of
12 the control signal in accordance with the control
13 signal?

14 MR. GASPAR: Sure. So, in a system where you
15 have a control signal coming in, but you have other
16 symbols coming in as well, it may be that that control
17 signal wins out over anything else that's coming in.
18 So it's one signal. There are other symbols that come
19 in, and it may be that under the proper conditions that
20 signal ends.

21 However, the patent also explains the
22 situation where the control signal comes in and a
23 condition causes an override. So it's possible that
24 both could be done using the language that was chosen
25 for Claim 25 and 29, and consistent with what the

1 specification is teaching as the controller selection
2 examples, we submit.

3 THE COURT: All right. Is there any reason
4 to believe that all of the different examples or
5 embodiments are reflected in that language in Claims 25
6 and 29?

7 MR. GASPAR: Sure. So, yes. And the reason
8 why is that there are two examples in the specification
9 outside of the claim that talk about controller
10 selection, and these are the two examples that I've
11 been talking about all morning. There is a lot of
12 specification that talks about other claims that are
13 not part of this case.

14 And so the reason that I'm confident that
15 these two embodiments are both reflected in this
16 particular claim is that there could have been a
17 disavowal of that override condition somewhere. And
18 the best example of the disavowal I believe that
19 Samsung is pointing out is the one that Your Honor
20 actually pointed out as well, which was the language in
21 column 11. What I'm submitting is that is not a
22 powerful enough statement of disavowal to throw out
23 that entire embodiment given particularly the language
24 in Claim 10.

25 THE COURT: I agree with you that it's not a

Edward L. Reed
EdReedCR@aol.com
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1 disavowal of the ordinary meaning. I think it is a
2 reflection of the ordinary meaning. And the argument
3 that there is no disavowal is persuasive if the
4 ordinary meaning is what you are arguing. But I'm
5 having trouble understanding how the claim language of
6 in accordance with the control signal includes
7 disregarding the control signal.

8 MR. GASPAR: Understood. Understood. So the
9 "in accordance with" contemplates that the control
10 signal comes in and that it would contribute to whether
11 or not the mode is selected as one or the other, but
12 that it could still be overridden.

13 And if Your Honor is not seeing that based
14 on the tutorial and seeing it based on the embodiments
15 and having been patient with me this morning and asking
16 questions right off the top, then I don't think we have
17 more to say because, as I understand the issues in the
18 case that go beyond simply what the words on the page
19 mean, as indicated by or covers that first embodiment,
20 everyone agrees, I don't think I would take more of the
21 Court's time on this.

22 THE COURT: All right. I will further
23 consider your argument on that. I always do after the
24 hearing.

25 MR. GASPAR: Thank you, Your Honor.

Edward L. Reed
EdReedCR@aol.com
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1 THE COURT: Thank you, Mr. Gaspar.

2 MR. PENSABENE: Good morning. Marc Pensabene
3 for Samsung.

4 THE COURT: Good morning.

5 MR. PENSABENE: Your Honor, Samsung believes
6 the Court got the construction right and, in fact,
7 probably did a better job than we did in proposing our
8 construction, in the sense that you've made it a lot
9 simpler and straightforward. So we agree with the
10 Court's construction. I could run through quickly
11 exactly why that is or I can explain why the second
12 embodiment is not covered, and I leave it to Your
13 Honor's discretion as to what would you prefer to hear.

14 THE COURT: I'd be happy to hear your response
15 to Mr. Gaspar's argument.

16 MR. PENSABENE: Sure. So the claims in this
17 case have two different components that I want to focus
18 on. One is the control signal and one is the selection
19 of the mode.

20 Looking first to the claims, the claims
21 are very clear that the control signal is based at
22 least in part on a number of different criteria. In
23 Claim 25 it's the power consumption of circuitry and
24 the idle power consumption. In Claim 29, it includes
25 the number of users. But in both cases it uses the key

Edward L. Reed
EdReedCR@aol.com
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1 phrase "based at least in part on," thereby making
2 clear that the control signal includes the recited
3 inputs, but can also include other inputs.

4 By contrast, when we look at the selection
5 part of the claim, the selection of the mode, it says
6 "in accordance with the control signal." It doesn't
7 say "in accordance with the control signal and other
8 criteria," it doesn't say based at least in part on the
9 control signal, both of which are ways the inventors
10 could have made clear that they intended to consider
11 outside things and allowing the override that
12 Mr. Gaspar was describing. But they didn't do that.
13 They said that the selection is made "in accordance
14 with the control signal." And I think Your Honor got
15 it exactly right when the Court ruled that that means
16 "as indicated by."

17 I put together this diagram just to make
18 it simpler. Again, the control signal based at least
19 in part on different input and others that may not
20 even be there, but the selection of the mode is in
21 accordance with, it's as directed by or as indicated by
22 the control system.

23 Now, Empire in its briefing pointed to
24 Claims 16 and 24 as supporting its construction, but if
25 we really dig into those claims and read what they are

1 saying, they actually supports Samsung's construction.
2 So I just want to, as a side note, point out that both
3 the base station and the mobile device, both have to
4 make a selection of mode, and I want to make sure we
5 don't get that confused.

6 Right now, this Claim 16 and 24 talk about
7 the base station selecting the transmission mode based
8 at least in part on a number of factors. So the base
9 station makes the selection based on a number of
10 factors. And again, the inventors used that key
11 phrase, "based at least in part on."

12 The claims then go on to talk about a
13 third signal that identifies the mode, the transmission
14 mode selected by the base station. And that signal,
15 which is called the third signal in these claims, is
16 the same as the control signal that's recited in the
17 asserted Claims 25 and 29. This is the signal that
18 indicates the mode that the base station selected. And
19 the base station is telling the mobile station: Hey,
20 this is the mode I want to use. You select this mode,
21 too.

22 And going back to my figure from before,
23 I've now annotated it to add the various roles of the
24 base station and the mobile station. So on the left,
25 again, you have the control signal, the selection of

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EdReedCR@aol.com
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1 the mode by the base station, including various
2 criteria of input. And again, it uses the key phrase
3 "based, at least in part, on."

4 That control signal or these unasserted
5 claims called the third signal is then sent to the
6 mobile station and the mobile station, in accordance
7 with these claims, is expected to select the same mode
8 based on that control signal, not other factors.

9 Empire agrees there is two different
10 embodiments. I think we all agree that the claims
11 cover the first embodiment, and I won't -- but I just
12 want to make clear, when we're talking about the first
13 embodiment, it's again very clear in what the claim is
14 talking about. It talks about the controller
15 configuring the encoders, making selection, using the
16 selected mode, using the mode indicated by the control
17 signals.

18 And there is no room for variation. If
19 the selected mode is MIMO mode, it selects MIMO mode
20 and configures the encoder to MIMO mode. If the
21 selected mode, the mode by the base station, indicated
22 by the control signal is SIMO mode, it configures the
23 encoder for SIMO mode. It selects SIMO mode.

24 The second embodiment is not claimed,
25 it's so clearly not claimed, because here it says, "the

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EdReedCR@aol.com
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1 controller may not configure the encoder in accordance
2 with the mode selected by the base station." In other
3 words it disregards the control signal, doesn't select
4 the same mode, and it clearly states that is not in
5 accordance with the control signal.

6 Now, Empire tries to draw this false
7 distinction. They are faced with this clear statement
8 in the spec that their position is not what the claims
9 are talking about. And what they do instead, they now
10 try to distinguish the statement in the spec, they try
11 to argue that there is a distinction. You know,
12 selecting the mode is somehow different than
13 configuring the encoder. But that's not at all the
14 case.

15 When the patent specification describes
16 the controller selecting a mode, the specification
17 describes it being done by configuring the encoder.

18 And I apologize, I see Ms. Smith is
19 handing out the probably the presentation. I apologize
20 for not doing that in advance.

21 MR. SMITH: May I approach, Your Honor?

22 THE COURT: Yes.

23 MR. SMITH: Thank you.

24 MR. PENSABENE: And we're on slide 18, Your
25 Honor, if Your Honor flips to the paper copy.

Edward L. Reed
EdReedCR@aol.com
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1 THE COURT: All right.

2 MR. PENSABENE: So then the selection of the
3 mode by the controller in the mobile device is
4 manifest, it's done by configuring the encoder. That's
5 how it makes the selection. And this is not just me
6 saying this. In its opening brief, Empire agreed. This
7 is an excerpt from Empire's opening brief, and in that
8 opening brief they describe how the various embodiments
9 perform the MIMO/SIMO selection. And how does Empire
10 say it's done? It's done by providing a signal to
11 configure the encoder. So, before they heard Samsung's
12 arguments, they were agreeing, they agreed that
13 configuring the encoder was selecting a mode. Now they
14 are trying to back away from that.

15 And that's the only thing they've done a
16 complete flipflop on. In their opening brief, Empire
17 took the position that what this term means is that the
18 controller is configured to select between MIMO mode
19 and SIMO mode while operating in accordance with the
20 control signal. In fact, they made this same statement
21 repeatedly throughout their opening brief. However,
22 that construction completely rewrites the claim as a
23 concept of a controller operating in accordance with
24 the control signal. That's found nowhere in the claims
25 and nowhere in the patent.

Edward L. Reed
EdReedCR@aol.com
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1 Based on Samsung's arguments on the
2 response brief, they have now -- Empire made a complete
3 about face claiming they never asked to include while
4 operating in the construction. So what they now argue
5 is that the construction should just rear-end the
6 words, let's just move "in accordance with" to a
7 different place, but not offer any explanation as to
8 what "in accordance with" means.

9 So, for this reason, Samsung submits
10 Empire's construction is improper, it does not resolve
11 the key dispute, the key disagreement over the meaning
12 of the term, and Samsung submits the Court should
13 Samsung's construction.

14 Unless you have any questions, Your Honor.

15 THE COURT: No, Mr. Pensabene. Thank you.

16 MR. PENSABENE: Thank you.

17 MR. GASPAR: Thank you, Your Honor. I don't
18 agree with the digest or characterizations of the
19 brief.

20 THE COURT: I always assume that, so don't
21 worry.

22 MR. GASPAR: I don't have more to add
23 technically or legally as an argument than what I
24 presented to the Court already in response to what
25 Samsung has said and, for economy of the use of the

Edward L. Reed
EdReedCR@aol.com
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1 Court's time, if it pleases the Court, would then move
2 on to the next claim construction issue.

3 THE COURT: That's fine.

4 MR. GASPAR: So, as I see the bracket here, I
5 believe the Court is proposing that plain and ordinary
6 meaning is the instruction that will be in the order,
7 but it will be understood by the parties and perhaps
8 the jury during the charge that "a negative limitation
9 of signal energy admitted by the antennas" will exist.

10 THE COURT: And the intent of the bracket is
11 to prevent the expert witnesses from arguing that. I
12 only use that in a situation where I don't think the
13 jury would even consider that unless one of the experts
14 or other witnesses proposes it. And so I am not
15 proposing that that would be given to the jury because
16 I don't think it would be necessary. But that is what
17 would govern the presentation of the case.

18 MR. GASPAR: So that's very helpful, Your
19 Honor, and it is not what I had understood. So, with
20 that, I don't believe I have argument on this. The
21 chief argument that I was going to make is that the
22 negative limitation that uses the phrase "signal energy
23 emitted by the antennas" is one that just simply
24 doesn't exist in the patent, it's quite hard to
25 understand. And so we can direct the experts not to do

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EdReedCR@aol.com
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1 that, which I believe is Your Honor's intent here. And
2 I don't think there is more to say about it from our
3 standpoint.

4 THE COURT: And I understood or was concerned
5 that there might be an issue about whether the power
6 consumption term included energy involved in the
7 admitted signal that is transmitted, as opposed to the
8 inputs to it. And if the plaintiff's position is that
9 power consumption is not just dealing with what the
10 circuitry -- what is involved with the circuitry, as
11 opposed to what is part of the signal that's
12 transmitted, then that's something I would like to
13 hear about. But if that's not a position that you are
14 taking, then there is no need to argue it.

15 MR. GASPAR: So, on the meaning of the term "a
16 power consumption of the first and second circuitry," I
17 believe we understand Your Honor's position fully and
18 also agree with it.

19 The one caveat I would make is that to
20 avoid potentially an issue down the road, if it is the
21 case that the power consumption of the first and second
22 circuitry is measured by something that is transmitted,
23 I wouldn't want to leave this courtroom without making
24 sure that that point was made. We will not be
25 including signal energy, whatever that means, admitted

Edward L. Reed
EdReedCR@aol.com
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1 by the antennas as part of the construction or any
2 infringement on our invalidity theory.

3 If, on the other hand, the power
4 consumption of the first and second circuitry is
5 something derived from a signal that is sent, then we
6 would, of course, want to make sure that the Court is
7 aware that that's a technical and an expert-based
8 decision that will happen down the road.

9 THE COURT: I can understand that there could
10 be different ways of measuring it. But what this is
11 about is what it is. And so, as long as we're not
12 including what I'll call the signal energy -- and maybe
13 that's not a technically correct term. But, in any
14 event, I don't think that what you are saying is
15 inconsistent with my understanding of this.

16 MR. GASPAR: Thank you, Your Honor, for your
17 patience and your explanation. I don't believe I have
18 anything further on this.

19 THE COURT: All right, thank you, Mr. Gaspar.

20 MS. GORE: Good morning, Your Honor. Laura
21 Gore on behalf of Samsung. I think with respect to the
22 claim term, given Empire's discussion and the Court's
23 discussion, that we don't have any further argument
24 unless you have questions.

25 THE COURT: I do not. I think we are all on

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EdReedCR@aol.com
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1 the same page at this point on that term, so I'm
2 satisfied with that.

3 MS. GORE: Yes, Your Honor, thank you.

4 THE COURT: All right. Thank you, Ms. Gore.

5 MR. GASPAR: So, Your Honor, my last trip to
6 the podium perhaps is simply to affirm that we
7 understand and don't at this point have an objection
8 to the preliminary construction for Element C, "an idle
9 power consumption of the mobile station."

10 THE COURT: All right.

11 MR. GASPAR: Thank you.

12 THE COURT: Thank you, Mr. Gaspar.

13 Does the Defendant have any argument to
14 offer on the "idle power" term?

15 MS. GORE: Yes, Your Honor, I'm sorry.

16 THE COURT: All right.

17 MS. GORE: A few things to clarify from the
18 Court's preliminary construction. I think, looking at
19 the claim language for Claim 25, there are two
20 different power consumptions referred to. One is "the
21 power consumption of the first and second circuitry."
22 And then later in the claim, this term that's at issue
23 here, is "the power consumption of the mobile station."

24 I think that the Court's preliminary
25 construction here, "power consumed by the first and

1 second circuitry," is probably more apt to be of the
2 mobile station as a whole. The claim language claims
3 two different things. So I think it makes clear from
4 the claim language that the power consumption for the
5 "idle" portion is of the mobile station as a whole,
6 whereas earlier in the claim the power consumption is
7 with respect to the first and second circuitry.

8 And then pointing to the "enabled for
9 transmitting" portion, the Court's preliminary
10 construction, the "enabled for transmitting" language
11 adds language to the construction that is not founded
12 or based in the specification. And to the extent that
13 "enabled for transmitting" could be read to require the
14 transceiver be powered on, that is contrary to the
15 specification, which specifically contemplates the
16 transceiver circuitry being powered off.

17 For instance, Your Honor, we could talk
18 about a situation in which a transceiver has an
19 upcoming top spot for transmission and the device turns
20 the transmission circuitry off until that time slot.
21 That situation seems that it would be in line with the
22 '120 patent explanation of "idle", but would not
23 necessarily be enabled for transmitting.

24 So just those two points that Samsung
25 would like to clarify on the Court's preliminary

Edward L. Reed
EdReedCR@aol.com
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1 construction. And just if the Court has any questions?

2 THE COURT: Not at the moment, but I would
3 like to hear the Plaintiff's response and then there
4 may be questions.

5 MS. GORE: Thank you, Your Honor.

6 THE COURT: Thank you, Ms. Gore.

7 MR. GASPAR: So I am looking now at the
8 preliminary construction. I don't have it up on the
9 screen. And I will confess I didn't fully understand
10 if there was an objection to the first part, which is
11 "power consumed by the first and second circuitry."
12 And so I do agree with Your Honor that that is the
13 right way to construe this term, so I don't have
14 anything further to add on that first part of the
15 argument.

16 THE COURT: What do you think the difference
17 would be between what I've got in the preliminary
18 construction about the "power consumed by the first and
19 second circuitry," as opposed to what Samsung is
20 proposing about "power consumed by the mobile station"?

21 MR. GASPAR: I don't know what the distance
22 would be there, Your Honor, candidly, and certainly not
23 from the point of view of a person of ordinary skill.
24 I mean, this claim is about how to transmit and
25 communicate over a communication channel. You know,

1 it's not about how a screen shuts off or doesn't, for
2 example, or a camera works or doesn't. So this is
3 consistent, we submit, with what a person of ordinary
4 skill would understand.

5 THE COURT: All right.

6 MR. GASPAR: As to the second point, if I
7 could start with Slide 33 and just unfortunately, but
8 quickly, parade Your Honor through the very large
9 number of places in which the spec confirms that idling
10 is waiting, idling is not off. And so, you know, we
11 start with the ordinary meaning of "idle," like a car
12 sitting at a stoplight. It's definitely on, it's
13 waiting to work, it's certainly not, you know, off when
14 it's idling.

15 Now, moving to the claim itself on slide
16 34, the claim language is fully consistent that the
17 device cannot simply be off. That's because the idle
18 power consumption is what's under consideration here.
19 It can't consume if it's simply off.

20 Moving then to the next slide, column 2,
21 line 58 through 62, The idle time is a time during
22 which the transceiver may be waiting to send data over
23 the communications channel."

24 THE COURT: And that influenced heavily the
25 language that you see in the preliminary construction.

1 MR. GASPAR: Thank you, Your Honor, and our
2 thinking about it as well.

3 There is another example on slide 36,
4 which is patent column 8, lines 52 to 63. And if I
5 could maybe focus then on slide 37 just to point as
6 much issue as possible with Samsung's argument. I
7 believe they are trying to suggest that this portion of
8 the claim -- or excuse me, of the specification,
9 suggests that you can simply turn off the transmitters.
10 Well, what's actually being said here is that the
11 transceivers, that equipment, is still idling, it's not
12 fully off. So, while part of it may not be working
13 because it's waiting to work, this further
14 specification, we submit, does not teach that turning
15 it off entirely is what's contemplated.

16 I won't deal give the words, but all of
17 those portions that I just cited were, in fact, in
18 Samsung's Markman brief. That's what they relied on
19 for their position, but candidly, I think it more
20 supports us.

21 So, with that, I will stop on the "idle
22 power consumption" element. Thank you, Your Honor.

23 THE COURT: All right, thank you, Mr. Gaspar.

24 Ms. Gore, if you have a response, please
25 go ahead.

Edward L. Reed
EdReedCR@aol.com
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1 MS. GORE: Yes, Your Honor. To the first
2 point regarding the language, specifically "by the
3 first and second circuitry," looking at Claim 25, the
4 claim uses "the first and second circuitry" terminology
5 in the power consumption term, and then later in the
6 claim it uses a different terminology, "the idle power
7 consumption of the mobile station." The claim language
8 here uses two different terms to refer to two different
9 things.

10 THE COURT: What do you see as the difference
11 in the power consumption of the mobile station versus
12 of the first and second circuitry?

13 MS. GORE: So I think Claim 25 defines "the
14 first and second circuitry" as the transceiver
15 circuitry, so "the idle power consumption of the mobile
16 station" must mean something different than that and so
17 it must be broader and must include other circuitry.

18 THE COURT: Well, what is the other circuitry
19 that you would contend it includes?

20 MS. GORE: Any of the other circuitry in the
21 mobile station.

22 THE COURT: All right.

23 MS. GORE: Thank you, Your Honor.

24 And then to the second point, Samsung is
25 not objecting to the "waiting to send" language. In

1 the Court's preliminary construction we're only
2 objecting to the added language of the "enabled for
3 transmitting" language. This language is found nowhere
4 in the claims or in the many cites in the '120 patent
5 just read to you by Plaintiff.

6 THE COURT: All right, I will consider that
7 further.

8 MS. GORE: Thank you, Your Honor.

9 MR. BROWAND: Good morning, Your Honor,
10 Nathaniel Browand on behalf of Plaintiff, Empire. We
11 appreciate and thank you for the preliminary
12 construction of "pilot symbol" meaning "symbol that is
13 known to the transmitter and receiver," and at this
14 time Empire is willing to accept the preliminary
15 construction primarily because it does not include the
16 term "reference," which was added by Samsung, which we
17 think should not be included.

18 And I'm just going to, for the record,
19 agree with the Court that we believe that the
20 preliminary decision by the Court is correct and it
21 would be incorrect to add the word "reference" in front
22 of "symbol." The patent never uses the term "reference
23 symbol," as we indicated, and it certainly never
24 equates "pilot symbol" with a "reference symbol". The
25 argument that they made with respect to the prosecution

Edward L. Reed
EdReedCR@aol.com
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1 history does not support the re-definition of the term,
2 and the addition of the word is unnecessary because
3 it's clear that a pilot is a symbol known to the
4 receiver.

5 So we accept the fact that Your Honor
6 says that it should be known to the transmitter and the
7 receiver. We think the language is sufficiently clear
8 in the spec that it's only necessary to be known to the
9 receiver. But we will, in the interest of simplifying
10 the issues, accept the preliminary construction in
11 order to move forward.

12 THE COURT: And I do understand, Mr. Browand,
13 that the "known to the transmitter" is not talked
14 about. But how could it be that the pilot symbol would
15 not be known to the transmitter?

16 MR. BROWAND: Your Honor, that's a fair point.
17 I think from a factual perspective it probably is
18 something known to the transceiver. It's just not
19 required to understand the term itself and it's
20 certainly not required to understand the claim
21 language, because if we go to the claim language --
22 this is on slide 41.

23 THE COURT: I would agree with you that I
24 don't think a person of skill would need to understand
25 it, but I do think it makes it more understandable to a

1 jury as to what this concept of a pilot symbol is.
2 The fact that it's known to both the transmitter and
3 receiver, I think, helps to understand that. And if
4 there is no dispute that it has to be known to the
5 transmitter, what is the prejudice to the Plaintiff by
6 including that? I certainly don't want to impose a
7 further burden improving infringement, but I don't
8 understand that this would. If you see it that way,
9 please tell me.

10 MR. BROWAND: Yeah, Your Honor, we think it's
11 fine as you've included it. We would just, if you
12 haven't referred to the *Renishaw* case that we cited in
13 our brief, which basically indicates that you do not
14 need to rely on a limitation to interpret what is
15 meant by a particular term, then that limitation is
16 extraneous and should not be used to construe the term.

17 So, with that, Your Honor, we will accept
18 the preliminary construction and yield to the rest of
19 the floor.

20 THE COURT: All right, thank you, Mr. Browand.

21 MR. PENSABENE: Marc Pensabene again, Your
22 Honor. Defendants are also fine with and are willing
23 to accept the Court's construction of "pilot symbol".
24 The one caveat I would note is that we strongly believe
25 that a core concept of this patent is that there has to

1 be a difference between pilot symbols and replicated
2 data. In other words, a pilot symbol cannot be also
3 replicated data. And so we appreciate Your Honor's
4 construction of "pilot symbol". We don't dispute that
5 and we think maybe that this is better addressed in
6 connection with the replicated data term.

7 MS. SMITH: I agree with you that I think it
8 is better addressed with that term, and it will
9 definitely come up.

10 I don't think that the concept of
11 "reference symbol" is out of line with the way I
12 understand this. I just don't know what it adds to the
13 understanding of this term, and that's my hesitation.

14 MR. PENSABENE: That is fair, Your Honor.
15 And, I mean, just to put Your Honor's mind at ease, in
16 fact, what the Plaintiff is accusing of being a pilot
17 symbol is called a "demodulation reference signal".
18 So, as I said, I don't think this is the place to make
19 the distinction we're trying to make, which is again
20 between the claimed "pilot symbol" and the claimed
21 "replicated data," and I think perhaps that the
22 construction of "replicated data" might be the better
23 place to address that distinction.

24 THE COURT: All right. Thank you,
25 Mr. Pensabene.

1 MR. BROWAND: Your Honor, Nate Browand again
2 for the Plaintiffs.

3 Turning to the term "a channel matrix of
4 the communications channel," we believe this term
5 should be given its plain and ordinary meaning. And
6 we understand that the Court has in its preliminary
7 constructions adopted Samsung's proposed construction
8 based on the grounds that the specification provides a
9 definition. And we believe that the specification does
10 not provide a definition because the passage relied
11 upon in the specification is not sufficiently clear
12 and exacting to meet the standards of that special
13 definition case law.

14 If we turn to slide 53, please, this is
15 the passage from the specification that forms the basis
16 of the preliminary construction, and I would submit
17 that "a channel matrix" is a well understood term, Your
18 Honor, in the art. It's not a coined term and it's
19 certainly not a coined term by this patent. It's so
20 well understood that the cited passage appears in the
21 background section of the specification, not the
22 description of the invention.

23 Figure 1 shows this channel matrix, which
24 is referred to as "H" in this cloud between the two
25 communications devices. None of the typical indicia of

Edward L. Reed
EdReedCR@aol.com
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1 a special definition are present in this cited passage.
2 So what's actually said, the background passage says,
3 "The signals received by a receiver over the
4 communications channel may be related to the
5 transmitted symbols by a channel matrix H ."

6 The next sentence, the underlying
7 sentence, is the purported definition as Samsung argues
8 it. However, as you can see, the "channel matrix" is
9 not called a term, it's not set off by quotation marks,
10 it's not used with the words "means" or "is."

11 Now, Samsung tried to hide all of these
12 facts by referring you to some case law that found a
13 dictionary definition where there was a term defined
14 with the word "generally," and they tried to focus you
15 on that term "generally" here instead of the lack of
16 other indicia that are necessary to find lexicography
17 according to the case law.

18 THE COURT: You know, I'm not convinced that
19 this is lexicography, but what I found persuasive was
20 that it represents the ordinary meaning of the term as
21 used in these claims.

22 MR. BROWAND: So we think the "channel matrix"
23 is a way to relate the data that is from the
24 transmitter to the receiver. But we have a hard time
25 understanding what exactly is meant by "the operation

1 of the communications channel." Although that is a
2 term that is used in connection with this sentence, we
3 don't think that's necessarily exactly a fair
4 characterization of what the channel matrix does.

5 I think from a plain English perspective --
6 and this is just me speaking not as a POSITA,
7 obviously, but a "channel matrix" is simply how the
8 communications channel impacts the signal, as you saw
9 in the technical tutorial, both parties have described
10 the interference that can happen, whether it's, you
11 know, buildings or other objects, or whether that's in
12 the way of the communications. And so, you know, that
13 impact is represented by this matrix that we've talked
14 about.

15 THE COURT: Certainly, the word "impact" could
16 take the place of the word "operation." My basic
17 attitude toward claim construction is that, wherever
18 possible, I try to use the Patentee's words over words
19 that I think would suggest the same thing.

20 MR. BROWAND: Well, Your Honor, we would
21 submit that the words that should be used would those
22 of an ordinary skilled artisan, and not necessarily the
23 Patentee's words when it's not lexicography. So we
24 think, under the plain and ordinary meaning
25 understanding, it would be a little bit looser

1 understanding of the impact between the transmitted
2 data and the received data.

3 THE COURT: I just think the word "relates"
4 that you have in your proposal doesn't really capture
5 the fact that this term is about the communications
6 channel. So it's not just any relationship between
7 what's transmitted and what's received. It's about
8 the effect of the communications channel on what is
9 transmitted.

10 MR. BROWAND: That's a fair point, Your Honor,
11 but I would refer you to the previous sentence, which
12 says exactly as we say. "The signals received by a
13 receiver over the communications channel may be related
14 to the transmitted signals by the channel matrix."
15 So that's the translation that is done through that
16 matrix and that's how they are related to each other.

17 THE COURT: Well, the Patentee felt the need
18 to go on and describe what the matrix is immediately
19 following the sentence that you are talking about that
20 is broader. Are you of the position that the matrix is
21 not limited to the effect of the communications channel
22 on the transmitted symbols?

23 MR. BROWAND: I think it probably is, Your
24 Honor. I think it is a fair characterization that
25 whatever impact that communications channel is having

1 on the transmission is captured or attempted to be
2 captured by that channel matrix.

3 THE COURT: And that's all the channel matrix
4 is trying to capture is the effect of the
5 communications channel, not any other issues relating
6 to the transmission.

7 MR. BROWAND: I think that's fair. And I
8 still don't think that that would qualify as the
9 operation of the communications channel, which to me
10 sounds like a bit more involved, and I think a POSITA
11 wouldn't use necessarily that terminology.

12 THE COURT: Well, is there a term that you
13 think would be more accurate, like the effect of the
14 communications channel or the impact of some other term
15 than "operation."

16 MR. BROWAND: Yes. I think, Your Honor,
17 either of those terms would be a little bit more
18 clarifying.

19 THE COURT: All right.

20 MR. BROWAND: Thank you.

21 THE COURT: Thank you, Mr. Browand.

22 MS. GORE: Thank you, Your Honor. Laura Gore
23 again on behalf of Samsung.

24 So *Phillips* tells us that the plain and
25 ordinary meaning starts with the intrinsic evidence.

1 The specification here sets out the plain and ordinary
2 meaning of this term: "The matrix of data which may
3 represent the operation of the communications over the
4 transmitted data symbols."

5 THE COURT: I don't think that that would
6 qualify as lexicography because it says "generally" and
7 doesn't have the other indicators. Is there a reason
8 why you don't think that a word like "effect" or
9 "impact" instead of the word "operation" would capture
10 the same meaning?

11 MS. GORE: Well, here, to replace the word
12 "operation" with "effect" or "impact," I think that
13 would likely capture the same meaning, but here we have
14 what the Patentee explained was the meaning. To Your
15 Honor's point, we have this first sentence where the
16 Patentee says that they may be related, but then feels
17 the need to explain further how they are related, that
18 the matrix of data represents the operation on the
19 transmitted data symbol.

20 THE COURT: I do believe agree that
21 "operation" may be an awkward way to communicate the
22 meaning. So, if you have argument against the
23 substitution of a similar term, tell me about it, but
24 my inclination would be to go that way.

25 MS. GORE: No, Your Honor, I think you have

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 laid out your understanding of the term in the same
2 way that we do. And I think a term that captures that
3 understanding would be fine with Samsung.

4 THE COURT: All right. I will look further at
5 that, Ms. Gore. Thank you.

6 MS. GORE: Thank you.

7 THE COURT: And, Mr. Browand, you can help me
8 understand the scope of the dispute by telling me,
9 does the Plaintiff agree that replicated data does not
10 include pilot symbols? Whether you think it should be
11 a negative limitation or not in the construction is a
12 separate question. But if you contend that the
13 replicated data can be pilot symbols, then I'll need to
14 hear more about that.

15 MR. BROWAND: Sure. Thank you, Your Honor.
16 To answer your question, we agree that "pilot symbols"
17 and "replicated data" are separate claim terms, they
18 have separate meanings.

19 Also, even though the parties offered
20 constructions of these terms, I think that we will
21 accept the Court's plain and ordinary meaning with the
22 bracketed language. We are not arguing for the
23 inclusion of multiple instances of data that happened
24 to occur.

25 We think that the specification is clear

Edward L. Reed
EdReedCR@aol.com
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1 about what "replicated data" means and is. It's used
2 and acts in the same way as a "pilot symbol". It is
3 pretty well understood that there's two benefits that
4 are provided by "replicated data," one of which is that
5 it can increase the accuracy of the channel estimation.
6 That's actually set forth in the claim language in a
7 perfectly parallel structure as the "pilot symbol"
8 language on slide 58.

9 So we receive the replicated data and we
10 generate an updated estimate of the channel matrix
11 based, at least in part, on that replicated data.
12 That's very parallel with to what we did with the pilot
13 symbol earlier in the claim, where we received the
14 pilot symbol and then we estimated the channel matrix
15 of the communications channel based, at least in part,
16 on the pilot symbol.

17 So what we're doing is we're using
18 replicated data to improve the accuracy of the
19 estimated -- the channel -- I'm sorry, excuse me, the
20 estimated channel matrix.

21 Now, the way that's done is not how
22 Samsung says. You don't replace the pilot symbols with
23 replicated data. You actually use both of them. And
24 that's very clear when you look at the specification.

25 So, for example, on slide 60, these

Edward L. Reed
EdReedCR@aol.com
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1 darkly shaded blocks are the pilot symbols. 520, 521,
2 522, 523, 524, and 525. And then we put in red boxes
3 what Samsung calls the payload data. And then the
4 replicated data, an example of the replicated data is
5 that shown in 530 in the green box. And by replicate,
6 we mean an exact copy is made at a different frequency
7 further down that stream, 530. So it's not that the
8 pilot symbols are replaced. It's that both are used.

9 That was further shown in the invention
10 disclosure, which is on the next slide, which has the
11 labeling. Those known pilot symbols are the dark
12 blocks, and the data replicated is in the gray shading.

13 So we think Samsung is incorrect by
14 saying that the only benefit of improved data rate is
15 achieved when the pilot symbols are just payload data,
16 because the claim is not limited to that circumstance.
17 It's clear that the benefit of increased accuracy of
18 channel estimation is also obtained by using replicated
19 data, as I just went through.

20 So, with that, Your Honor, we agree with
21 the plain and ordinary meaning and I hope I've answered
22 your questions. But if not, please let me know.

23 THE COURT: All right, you have not.

24 My question is: Does the Plaintiff agree
25 that the replicated data block cannot be a pilot

1 symbol?

2 MR. BROWAND: So I think the claim language in
3 the specification is such that "replicated data" some
4 of the time is not a "pilot symbol". And when that is
5 the case at least some of the time, then the data rate
6 is improved. Now, that is consistent with the language
7 that's in the specification. The specification, we
8 cited it in our reply brief, column 5, lines 50 to 57,
9 it says, "by utilizing replicated data to generate or
10 update an estimate of the channel matrix, the
11 communications device may in some examples require
12 fewer pilots to be inserted into signals communicated
13 over the communications channel,"

14 So that's that permissive language, "may
15 in some examples".

16 THE COURT: And that is talking about whether
17 "replicated data" must replace "pilot symbols", and I
18 agree with you that there is no requirement that it do
19 so that I've seen in the claims.

20 But the whole -- my understanding of
21 "replicated data" is that it has the advantage of
22 carrying some payload data, user data, however you
23 want to call it, which "pilot symbols" do not.

24 MR. BROWAND: Yes. So I think it's true that
25 at least some of the replicated data is pilot data.

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 Now, if there is replicated data in the form of both
2 pilot symbols and payload data, that should also be
3 included, Your Honor. That's exactly what the
4 permissive language in the specification seems to
5 support, that the data rate may be advantageously
6 increased. It doesn't say that by using the replicated
7 data, you will then have an increase in data rate
8 necessarily. It says may advantageously increase the
9 data rate.

10 THE COURT: So, are you saying that the
11 Plaintiff's position is that "replicated data block"
12 could just be a pilot symbol?

13 MR. BROWAND: Not by itself, Your Honor. I
14 think it has to be at least a combination of payload
15 data and pilot, but it could be a combination, Your
16 Honor.

17 THE COURT: Well, then it can't just be a
18 replication of a pilot symbol.

19 MR. BROWAND: I think that's a fair statement.

20 THE COURT: All right. So I did not
21 understand the dispute to be whether a replicated data
22 block could include something that's also in a pilot
23 symbol. And is that what you understand the dispute to
24 be?

25 MR. BROWAND: Well, I'm trying to describe

1 what we think the scope of the invention covers. And
2 so that's why I'm drawing upon this circumstance where
3 I didn't want to lose out on what we thought was the
4 scope of the invention. So I'm trying to explain the
5 circumstance where we think that generally you are
6 right, but there are circumstances where it can be
7 both, and that should be covered within the scope of
8 the claim.

9 THE COURT: "Can be both"?

10 MR. BROWAND: I'm sorry, that replicated data
11 can -- in that replicated data block can include
12 payload data and pilot symbol.

13 THE COURT: Well, it can't be a pilot symbol
14 because, or at least my understanding would be a pilot
15 symbol has to be known to the receiver. If it has
16 payload or user data, that can't be known to the
17 receiver, can it?

18 MR. BROWAND: Well, it's not known in advance,
19 Your Honor, but this type of data is sent multiple
20 times. And when its sent as replicated data, it will
21 then be understood and known to the receiver. The
22 specification, Your Honor, makes this clear.

23 THE COURT: Well, one of the reasons why I
24 did not think it was necessary to include Samsung's
25 recommendation of non-pilot is that I believe that was

1 understood that the replicated data cannot simply be a
2 pilot symbol.

3 MR. BROWAND: And, Your Honor, I think I
4 agreed with that. I wanted to clarify the circumstance
5 where it was a bit mother complicated. So we agree,
6 Your Honor.

7 THE COURT: And the circumstance where it's a
8 bit more complicated is you are saying that a
9 replicated data block could, in addition to having
10 some payload or user data, also have something that is
11 otherwise part of a pilot symbol?

12 MR. BROWAND: That's correct. And we didn't
13 want things to be disqualified from constituting
14 replicated data simply because it included payload data
15 plus other information that Samsung could point to as
16 being a pilot symbol, even though it's not being used
17 as a pilot symbol, per se.

18 THE COURT: Is there a dispute about the fact
19 that "replication" is an exact copy? I know you are
20 proposing "duplicated", which I think is a fair
21 substitute term. They're proposing "copied". Do you
22 understand there to be a difference as to whether it
23 needs to be exact or not?

24 MR. BROWAND: I don't think they are disputing
25 that, Your Honor, but we wanted it to be clear that it

1 does have to be exact.

2 THE COURT: Okay. All right.

3 MR. BROWAND: Thank you.

4 THE COURT: Thank you, Mr. Browand.

5 MR. PENSABENE: Your Honor, I just want to
6 address a couple of things up front. Samsung is not
7 arguing that "replicated data" has to replace "pilot
8 symbols," or all pilot symbols or anything like that.
9 It's being used in lieu of some pilot symbols, but as
10 the specification makes clear, it doesn't preclude
11 other pilot symbols being used. It's just meant to
12 reduce the number of pilot symbols that are required.

13 THE COURT: I don't know that there is a
14 requirement that I saw. It may be the most common
15 situation would be that it reduced the number of pilot
16 symbols. But is there something that you think
17 requires that?

18 MR. PENSABENE: No, Your Honor, and our
19 construction doesn't state that at all. I was just
20 trying to clarify, we are not taking the position that
21 "replicated data" has to replace every single pilot
22 symbol. That's not the position we're taking at all.

23 I just want to kind of touch on what
24 counsel ended on, which is something nowhere found in
25 the patent, nowhere found in the file history, nowhere

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 found in the briefing, a completely new theory that
2 somehow a single replicated data symbol can be two
3 things at once. This is something that is
4 technologically not supported by anything in the
5 record. It's a completely new argument and completely
6 unsupported argument. The patent makes a clear
7 distinction it's either replicated data, data that's
8 not replicated, or a pilot symbol. There is absolutely
9 zero discussion of something being both in any way,
10 shape, or form.

11 Likewise, I just want to lead off by
12 saying there is absolutely no disclosure, Plaintiff has
13 pointed to absolutely nothing in the specification to
14 even suggest that a pilot symbol could be replicated
15 data. And I'll get into all of this in a little more
16 detail, but I just want to lead off with that.

17 I think, Your Honor, touching on the last
18 thing that Your Honor raised, I agree with Your Honor
19 and I think the parties are in agreement that
20 "replicated" means an exact copy, and we would be fine
21 with that and I think Plaintiff is fine with that, and
22 I think we could skip over that part of the dispute.

23 The second part of the dispute, which I
24 think is kind of the core of it, is whether we have to
25 include in the construction non-pilot symbols. Now, I

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 just want to point out, Your Honor, we are not trying
2 to limit this claim term in any other way other than
3 to exclude pilot symbols. And the reason for that is
4 because that is firmly supported by the specification.
5 Indeed, it's the core concept of the patent is that
6 you're going to use replicated data instead of having
7 to use more pilot symbols.

8 Now, Empire's primary criticism of this
9 is that it's a negative limitation and that there is no
10 express definition. But the law is clear you don't
11 need an express definition. As the *AstraZeneca* case
12 holds, "When a Patentee uses a claim term throughout
13 the entire patent specification, in a manner consistent
14 with only a single meaning, he has defined that term
15 'by implication.'"

16 Likewise, in the *Lenovo* case, the PTAB
17 construed the term "NIM template." And it construed
18 that term to include a negative limitation which
19 excludes executable applications/compiled code.

20 The Federal Circuit affirmed this
21 construction and, in doing so, recited the well
22 understood and well settled law that: The
23 specification acts as a dictionary not only when it
24 expressly defines a term, but can also add as a
25 dictionary when it defines the term by implication.

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 And that's exactly what we have here.

2 Looking first to the claims, the claims
3 clearly recite two different things: They recite
4 "pilot symbol" and they recite "replicated data."
5 Nowhere do the claims even suggest that a pilot symbol
6 could be the replicated data. Nothing in the claims to
7 support that.

8 THE COURT: And I don't understand then the
9 Plaintiff to be arguing that a pilot symbol can be
10 replicated data. What I heard was that some portion of
11 replicated data could also appear in a pilot symbol.

12 MR. PENSABENE: Well, Your Honor, with all due
13 respect, I would disagree and disagree with Plaintiff's
14 representation because their infringement contentions
15 are doing just that. They are reading the replicated
16 data to be a pilot symbol. So, notwithstanding what
17 counsel is representing here today, they are making
18 that allegation in their infringement contentions.

19 In fact, in their infringement contentions
20 they identify the same thing, the DMRS signal, the same
21 thing as being both the pilot symbol and the replicated
22 data. So, notwithstanding counsel's representations
23 today, they are clearly arguing infringement based on a
24 pilot symbol being a replicated data.

25 Turning to the specification, the

Edward L. Reed
EdReedCR@aol.com
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1 specification again clearly distinguishes between
2 replicated data and pilot symbols. Nothing in the
3 specification suggests or even mentions or hints that a
4 pilot symbol could be the replicated data. There is no
5 statement to that effect and Plaintiff hasn't pointed
6 to anything.

7 In fact, as I led off, Samsung's
8 construction is not only supported by the
9 specification, it's required by it. This is the core
10 concept of the invention. When a patent identifies the
11 problem they are seeking to solve, the problem they are
12 seeking to solve is, in the first quote, "The need to
13 insert pilot symbols into the transmitted data streams
14 may adversely affect a data rate attainable in the
15 communication system."

16 So the use of pilot symbols is the
17 problem; okay? The patent then sends out the solution.
18 The patent states, "By utilizing replicated data to
19 generate an estimate of the channel matrix, the
20 communications device may in some examples require
21 fewer pilot symbols to be inserted in the
22 communication's signals."

23 So they are saying that by using
24 replicated data, they could potentially use less pilot
25 symbols, again drawing a clear distinction between the

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 replicated data and pilot symbol. This statement would
2 make no sense if they meant the same things.

3 And there's this potential reduction in
4 the number of pilot symbols that gives rise to the
5 whole alleged benefit of the patent, and that is, by
6 reducing the number of pilot symbols, you could
7 advantageously improve the data rate of the system.

8 So counsel talked about two benefits from
9 using replicated data. One of them was increasing the
10 accuracy or the performance of the channel, and that's
11 true, but that it's also achieved by pilot symbols. So
12 there is no invention there. The invention is that by
13 using replicated data to perform this function, you
14 have another benefit, and that is the potential for
15 increased data rate throughput or less of a negative
16 impact than if you had used pilot symbols.

17 THE COURT: Mr. Pensabene, does the
18 specification use a particular term that would cover
19 what you are describing in your arguments as payload
20 data or user data?

21 THE COURT: The orange blocks would be just the
22 regular data.

23 THE COURT: The what again now?

24 MR. PENSABENE: I'm sorry, the pink blocks.
25 So, in Figure 5 of the patent, for example, it's

1 indicated as S1, S2, S5, S6, S7, S8, et cetera.

2 THE COURT: And does the specification refer
3 to those with some word like "payload data" or "user
4 data"? I'm struggling to find a way to describe that
5 in the claim construction order that is consistent with
6 the language of the specification.

7 MR. PENSABENE: So, Your Honor, to be honest
8 with you, we had the same struggle in thinking about
9 this and coming up with a construction. But we didn't
10 want to just limit the replicated data to being payload
11 data. You know, we actually went broader than that and
12 we said it can't be a pilot symbol. That's crystal
13 clear. And that avoids the whole problem of trying to
14 define something else. As long as it's not a pilot
15 symbol, then it could be replicated data.

16 THE COURT: All right.

17 MR. PENSABENE: Now, as I said, nowhere in the
18 specification does it even suggest that a pilot symbol
19 could be replicated data. However, I believe Plaintiff
20 points to a passage in column 10 of the patent, but
21 this actually supports Samsung's construction, it does
22 not support the Plaintiff's construction.

23 In this passage it talks about the
24 replicated data performing a similar function to the
25 pilot symbols in terms of a channel estimation. And it

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 states, "In this manner, the number of pilot symbols
2 may be effectively increased through the use of
3 replicated data." It's not saying the number of pilot
4 symbols are actually increased. It's effectively
5 increased.

6 What it means by this is that the accuracy
7 of the channel estimates may improve. But again, it's
8 clearly distinguishing between pilot symbols and
9 replicated data because it says "the effective number
10 of inserted pilot symbols is equal to a sum of the
11 number of actual pilot symbols plus the number of
12 inserted replicated data symbols," so again drawing
13 this clear distinction between the replicated data and
14 the pilot symbols.

15 And then finally, it talks about the
16 advantage. What's the advantage of this invention?
17 And it says, "Because the cost of replicated data
18 symbols also transmit data" -- that's the data Your
19 Honor was referring to -- "over the communications
20 channel ... the use of replicated data symbols may not
21 impair the overall data rate as severely as the use of
22 more pilot symbols."

23 That is the advantage of the system. If
24 the replicated data was just more pilot symbols, that
25 advantage would not be achieved.

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 And again, to the extent there is any
2 question as to whether there is a distinction between
3 pilot symbols and data symbols, the inventors have used
4 these terms clearly to mean two different things.

5 And here's another patent by the same two
6 inventors as the '331 patent. And in this patent the
7 inventors describe pilot symbols consistent with Your
8 Honor's construction earlier, and it describes data
9 symbols as corresponding to symbols transmitted to
10 receiver that represent information. In other words,
11 not a pilot symbol.

12 And so, again, Your Honor, we submit that
13 the core of this invention, the very heart of this
14 invention is that the replicated data, whatever it is,
15 it cannot be a pilot symbol. The specification is
16 crystal clear on that. The problem to be solved, the
17 solution and the benefits are all tied to the fact that
18 the replicated data is not a pilot symbol.

19 Unless Your Honor has any questions, I
20 have nothing further.

21 THE COURT: All right, thank you,
22 Mr. Pensabene.

23 MR. BROWAND: Your Honor, if I may just a
24 couple of comments on following up?

25 THE COURT: Of course.

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 MR. BROWAND: In response to your question, we
2 want it to be clear, the specification never says that
3 replicated data has to be payload data. All of the
4 passages that counsel just took you through were all
5 "may." So we're all talking about the circumstance
6 where some of the data is payload data, but it doesn't
7 necessarily have to be every block of that replicated
8 data.

9 The problem with the negative limitation
10 is that they are able to exclude things simply because
11 there might be one pilot or something that looks like a
12 pilot in a block that we would call replicated data.
13 So that's the concern with the negative limitation.
14 The characterization of the infringement contentions is
15 unfair and incorrect.

16 The second thing I would say, Your Honor,
17 is the *Lenovo* case only supports Empire. If you look at
18 the *Lenovo* case, this is the quote from the
19 specification of the patent in the *Lenovo* case. There
20 are actual words of exclusion in the specification.
21 "NIMs are extremely flexible, because the definition of
22 the NIM is content, rather than compiled code."

23 That is a binary situation, a mutually
24 exclusive situation, words of exclusion. We don't have
25 that here. The specification in the '331 patent is not

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 like that. It does not support a negative limitation.

2 If I can just go back to Slide 64,
3 please.

4 Counsel also made an argument that, well,
5 it may not be an expressly definition, but if you put
6 all these facts together, it should be an implied
7 redefinition of exclusion. But the case law says there
8 is no such thing. The more recent and authoritative
9 case of *Thorner* says: An "'implied' redefinition must
10 be so clear that it equates to an explicit one. In
11 other words, a person of ordinary skill in the art
12 would have to read the specification and conclude the
13 applicant has clearly disavowed claim scope or has
14 acted as its own lexicographer."

15 There is no words of exclusion in the
16 specification and, therefore, there is no implied
17 exclusion of pilot symbol from replicated data.

18 Thank you, Your Honor.

19 THE COURT: Mr. Browand, the point I
20 understand you to be making is that you are not
21 agreeing and the specification does not require that
22 there be no overlap at all between what constitutes
23 replicated data and what constitutes a pilot symbol.
24 But you are not contending that a pilot symbol can be
25 replicated data?

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 MR. BROWAND: That's correct. I agree with
2 that statement, Your Honor.

3 THE COURT: Well, I don't understand the
4 dispute before me to include the details of how this
5 data is constituted, but I do understand it to include
6 the issue of whether there has to be a clear
7 distinction between pilot symbols and replicated data.
8 And I understand there is one, that those two things
9 cannot be the same.

10 MR. BROWAND: They cannot be the same, Your
11 Honor, but the patent allows for some overlap.

12 THE COURT: Well, and I think that's at a
13 level of granularity that I am not dealing in today.

14 MR. BROWAND: Understood. Thank you, Your
15 Honor.

16 THE COURT: All right, thank you, Mr. Browand.

17 MR. PENSABENE: Your Honor, I believe the
18 Court has zeroed in on the exact issue, recognizing the
19 dichotomy between pilot symbols and replicated data. I
20 think the Plaintiff is now scrambling, trying to argue
21 that there is somehow overlap, somehow a single symbol
22 can be both a pilot symbol and replicated data because
23 it has pieces of both. That is completely unsupported.
24 I don't find it anywhere.

25 THE COURT: I'm not understanding that to be

1 their position, and it's certainly not my position that
2 a pilot symbol can be replicated data, or vice versa.
3 But what I don't know is the manner in which replicated
4 data is expressed, what the contents of that are and
5 whether it's a message that has multiple components
6 and --

7 MR. PENSABENE: This is clearly shown in the
8 patent here. Each of these blocks represents a single
9 symbol. It's not a complex message or block or word.
10 Each of these little symbols -- each of these blocks
11 represent a single symbol or even part of a single
12 symbol. So there is no multiple parts within a block
13 where a part that's within a block can be a pilot and
14 part within a block can be, you know, useful data or
15 something else. That's not what it is, that's not what
16 the patent talks about.

17 And while the Plaintiff is coming with
18 these hypotheticals, they are technologically
19 unsupported. Their expert doesn't talk about this.
20 The specification doesn't talk about this. The prior
21 art doesn't talk about this. And the reason being is
22 because it's nonexistent. They are talking about
23 something that does not exist and it's certainly not
24 what they are alleging of infringement in the
25 contentions. Plaintiff disagreed with my

Edward L. Reed
EdReedCR@aol.com
409-330-1605

1 representation as to their infringement contentions, but
2 they clearly argue that the pilot symbol, the DMRS, is
3 both the pilot symbol and the replicated data.

4 THE COURT: Well, certainly their infringement
5 contentions may have to give way to the claim
6 construction. That's not something that is before me
7 now.

8 But your argument is that what you have on
9 the screen in your slide 69 shows symbols that make up
10 the replicated data or the pilot symbols, but you're
11 showing that some are composed of multiple blocks?

12 MR. PENSABENE: No. And maybe the other
13 figure is even better. Each of those blocks is a
14 symbol. So the pilot symbol would be one or two or
15 whatever of those blocks. So, for example, the green,
16 those are individual pilot symbols.

17 THE COURT: Well, if a pilot symbol is several
18 of those blocks, then in order for something else to be
19 a pilot symbol, at least that pilot symbol, it would be
20 several blocks. And so the question would be: What if
21 just one of the blocks that makes up a pilot symbol is
22 also a part of a replicated data symbol?

23 MR. PENSABENE: That's not the way it works.
24 Each block stands on its own, it's not part of
25 something else.

1 THE COURT: Well, you just said that the symbol
2 could be several blocks.

3 MR. PENSABENE: No, there could be several
4 pilot symbols.

5 THE COURT: Okay.

6 MR. PENSABENE: And here, let me show you
7 another, if I may, Your Honor. Here's another figure,
8 you know, same concept. It shows the pilot symbols in
9 black, the payload data in pink. The replicated data
10 is, I don't know what color that is, a weird dark blue.

11 But the point being, each individual
12 symbol is either a data symbol or replicated data or a
13 pilot symbol. Nowhere does the specification talk
14 about a single symbol being anything other than that.
15 It never talks about a single symbol being multiple
16 things. Yes, within the entire data stream, because
17 these lines represent the data stream, there are
18 multiple symbols. So the entire data stream contains
19 different things. It includes data, it includes
20 replicated data. It includes pilots. But when you're
21 talk about the individual blocks, it's either a pilot
22 symbol or replicated data. It's not both.

23 THE COURT: And are these digital streams?

24 MR. PENSABENE: Yes.

25 THE COURT: So what constitutes a symbol?

1 MR. PENSABENE: It's a number of bits put
2 together.

3 THE COURT: All right. So it is something
4 that's constituted from a number of bits?

5 MR. PENSABENE: Correct, Your Honor.

6 THE COURT: So does that mean that there can't
7 be some bits in a replicated data symbol that are also
8 used in a pilot symbol?

9 MR. PENSABENE: I'm not sure I understand your
10 question, Your Honor. But if you're asking whether
11 part of -- I actually don't understand your question,
12 I'm sorry.

13 THE COURT: Well, bits are pretty simple
14 things; right?

15 MR. PENSABENE: Correct.

16 THE COURT: And they are not original, they
17 are used over and over again. And the argument that
18 I'm hearing is that the fact that some bits are part of
19 a pilot symbol doesn't mean that those bits can also be
20 reflected in a replicated data symbol.

21 MR. PENSABENE: There is simply -- this is a
22 made up and; technologically impossible situation. I
23 mean, when you encode the letter A, for example, as
24 being data, right, let's say you have eight bits that
25 represent that letter A. If you're going to replicate

1 that data, you have those same eight bits, you
2 replicate it, and so you have two copies of the same
3 eight bits representing A. There is nothing in that
4 encoding of the A that is a pilot symbol. And this
5 concept of something being both data and a true pilot
6 symbol is nowhere in the patent. That's
7 technologically made up.

8 THE COURT: All right. And I'm not
9 understanding any of the argument to change the fact
10 that a pilot symbol cannot be replicated data and vice
11 versa.

12 MR. PENSABENE: And we agree with that, Your
13 Honor.

14 THE COURT: All right.

15 MR. PENSABENE: Thank you.

16 THE COURT: Anything further on that issue?

17 MR. BROWAND: Nothing further, Your Honor.
18 Thank you.

19 THE COURT: All right. Well, I appreciate
20 the arguments. I believe they have been helpful and I
21 will endeavor to get out a claim construction order
22 promptly. Thank you.

23 MR. BROWAND: Thank you, Your Honor.

24 THE COURT: I understand the discovery issue
25 has been resolved completely; is that right?

1 MR. BROWAND: Yes, Your Honor.

2 THE COURT: Okay, good. Then we're adjourned.

3 Thank you.

4 MR. BROWAND: Thank you, Your Honor.

5 MR. PENSABENE: Thank you, Your Honor.

6 **[10:33 a.m. - Proceedings adjourned]**

7

8 REPORTER'S CERTIFICATE

9

10 I certify that the foregoing is a correct transcript
11 from the record of proceedings in the above-entitled
12 cause.

13

14 /s/ Ed Reed
15 Edward L. Reed
16 Court Reporter

1-25-25
Date

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Edward L. Reed
EdReedCR@aol.com
409-330-1605