1 IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
2 WACO DIVISION

3 VERVAIN, LLC * February 6, 2025
*
4 VS. * CIVIL ACTION NOS.
*
5 KINGSTON TECHNOLOGY * AU:24-CV-254
COMPANY, INC., ET AL. *
6 PHISON ELECTRONICS *
CORPORATION * AU:24-CV-259
7

BEFORE THE HONORABLE ALAN D ALBRIGHT
8 MARKMAN HEARING (via Zoom)

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01:31 1 (Hearing begins.)

01:31 2 DEPUTY CLERK: A civil action in Cases

01:32 3 AU:24-CV-254, Vervain LLC versus Kingston Technology

01:32 4 Company, Incorporated, et al., and Case AU:24-CV-259,

01:32 5 Vervain LLC versus Phison Electronics Corporation.

01:32 6 Cases called for a Markman hearing.

01:32 7 THE COURT: Announcements from counsel

01:32 8 starting with the plaintiff, please.

01:32 9 MR. WHITEHURST: Good morning -- or I

01:32 10 should say afternoon, Your Honor. Alan Whitehurst from

01:32 11 McKool Smith for plaintiff Vervain. And with me on the

01:32 12 line are Chris McNett and Christian Dorman.

01:32 13 You already know Mr. McNett. He's

01:32 14 appeared before you several times. But Mr. Dorman is

01:32 15 new to our firm and one of our more junior attorneys.

01:32 16 And we're pleased today that he's going to have the

01:33 17 opportunity to handle Term 8, memory space, and Term

01:33 18 10, memory element.

01:33 19 THE COURT: Okay. I look forward to it.

01:33 20 MR. WHITEHURST: Yes. And if it's okay,

01:33 21 I was also going to introduce real quickly Dr. Rao.

01:33 22 He's on the line as well. He's the co -- one of the

01:33 23 cofounders of Vervain and the inventor of the

01:33 24 patents-in-suit.

01:33 25 And also with us today is Gerald Amen,

01:33 1 president and head of licensing for Vervain.
01:33 2 THE COURT: Always a pleasure when
01:33 3 clients attend. It's part of the reason I do these
01:33 4 things by Zoom so that folks can easily attend. I'm
01:33 5 glad they are.
01:33 6 MR. WHITEHURST: Thank you, Your Honor.
01:33 7 MR. CARRANO: Good afternoon, Your Honor.
01:33 8 This is Cono Carrano of Akin for the Kingston entities.
01:33 9 And with me today is Andy Rosbrook. He's going to be
01:33 10 arguing one term. And Ryan Stronczer, who just got
01:33 11 admitted today. He will be -- with your Court, that
01:33 12 is -- he'll be arguing --
01:34 13 (Laughter.)
01:34 14 MR. CARRANO: -- another term. There was
01:34 15 a little confusion about that admission. But he
01:34 16 also -- also with us are I think several people from
01:34 17 Kingston. Tracy Chang, for one. I don't know who else
01:34 18 but there might be a gang of people here from Kingston.
01:34 19 THE COURT: That'd be great. All
01:34 20 welcome.
01:34 21 So let's start with the first claim term.
01:34 22 Give me just one second.
01:34 23 MR. CHIN: Oh, I'm sorry.
01:34 24 THE COURT: Sure.
01:34 25 MR. CHIN: I'm sorry, Your Honor. If you

01:34 1 don't mind, I'd like to make an introduction.
01:34 2 THE COURT: Sure. Of course.
01:34 3 MR. CHIN: Doug Chin, counsel for Phison
01:34 4 Electronics Corporation. My colleague and I, Steve
01:34 5 Chow, will be arguing the -- we'll be presenting the
01:34 6 oral arguments for Phison.
01:34 7 There are some other members of our firm
01:34 8 in the gallery. But today it's going to be me and
01:34 9 Steve that'll be presenting the oral argument.
01:34 10 THE COURT: Sounds just great.
01:34 11 We'll take up first the claim term MLC
01:35 12 nonvolatile memory.
01:35 13 MR. CHOW: Good afternoon, Your Honor.
01:35 14 This is Stephen Chow.
01:35 15 With the Court's leave, I'd like to argue
01:35 16 the MLC and SLC memory module terms together. I think
01:35 17 that'll save some time.
01:35 18 THE COURT: I hate saving time.
01:35 19 (Laughter.)
01:35 20 THE COURT: That would be just fine.
01:35 21 MR. CHOW: Okay. And if I may ask to
01:35 22 share the screen.
01:35 23 THE COURT: I don't know how to do that,
01:35 24 but --
01:35 25 MR. CHOW: Yeah. I can do it, I think.

01:35 1 Okay. Do you see the screen?
01:35 2 THE COURT: I do. Yes, sir.
01:35 3 MR. CHOW: Okay. Again, we'd like to
01:35 4 argue this including a screen to the presubmitted
01:35 5 slides.
01:35 6 The defendants' position is not a repeat
01:35 7 of Western Digital's. We agree with plaintiff that the
01:35 8 floating gate cell used in both SLC and MLC memory is
01:35 9 capable of storing electrical charges representing one
01:36 10 or multiple bits of information.
01:36 11 The issue is not the storage capacity of
01:36 12 that floating gate cell. What the issue is, is what is
01:36 13 an SLC NVM, a nonvolatile memory module, as
01:36 14 distinguished from a MLC nonvolatile memory module in
01:36 15 the claims, in the patent specification, and in the
01:36 16 intrinsic evidence that Dr. Rao submitted with his 2012
01:36 17 application.
01:36 18 Those provide not only the support but
01:36 19 the language for the claims. In fact, other than SLC
01:36 20 and nonvolatile memory module and MLC -- SLC
01:36 21 nonvolatile memory module are the only descriptions of
01:36 22 the -- a very complex system that is claimed.
01:36 23 The purported advantages of this -- of
01:36 24 the eight patents includes, from the specification,
01:37 25 both the speed, the cost, and the endurance of

01:37 1 different mixes of the SLC and MLC memory.

01:37 2 So as we say, that scope is not directed

01:37 3 only to storage capacity but the structure necessary

01:37 4 for the MLC and SLC memory module.

01:37 5 And what I'd like to point out is that

01:37 6 the term "memory module" is used in each of the

01:37 7 seven -- in each of -- except one of the eight patents.

01:37 8 And the -- if you look at Claim 1 of the '298 patent,

01:37 9 which is repeated through the first three patents, is

01:37 10 that there's an MLC module, there's an SLC module, and

01:37 11 a controller that's adapted.

01:37 12 Now, the adaptation is extensive for the

01:37 13 controller. But nothing is said about really what is

01:37 14 an MLC and SLC. In fact, for a layperson, MLC and SLC

01:38 15 has no meaning whatsoever. It's only in the context of

01:38 16 a person of ordinary skill in the art that there would

01:38 17 be a customary or ordinary meaning for those -- for

01:38 18 those people.

01:38 19 And frankly the -- the patents rely upon

01:38 20 an understanding by a POSITA of all the issues such as

01:38 21 erasing, reading, and writing. None of that sets forth

01:38 22 an MLC or SLC.

01:38 23 So the issues, as I mentioned, was that,

01:38 24 well, there's some concern about density. There's some

01:38 25 concern about access speed and lifetime endurance. And

01:38 1 endurance is the one that has been stated most
01:38 2 prominently. But these distinct memory structures
01:38 3 allow operations that give rise to other
01:38 4 characteristics.
01:38 5 So the -- I can get back to this.
01:38 6 Essentially what's disclosed are MLC modules, SLC
01:38 7 modules. The patents do not disclose something else.
01:38 8 The differences in how SLC and MLC
01:39 9 memories read and write show that they're structurally
01:39 10 different.
01:39 11 So -- and Dr. Rao, he submitted his prior
01:39 12 patent which included a Samsung SLC chip. And that was
01:39 13 really called a flash memory. And only -- the cells
01:39 14 are only a small part of this array of cells. So
01:39 15 really this memory includes all the structure.
01:39 16 Again, this is also in submitted art.
01:39 17 Dr. Rao knew about this for many years.
01:39 18 SLC memory, not called SLC memory at the time, because
01:39 19 it was really only two levels; that is, either on or
01:39 20 off, was around -- was introduced by -- back in 1988.
01:39 21 Over the next eight years and then by
01:40 22 1998, there was something called MLC technique. And
01:40 23 the MLC technique was distinguished by -- the earliest
01:40 24 reference we found to SLC was in the Cho document which
01:40 25 referred to -- referred to the -- referred to

01:40 1 multilevel programming cell as opposed to a single
01:40 2 level programming cell.
01:40 3 But essentially the idea that all this
01:40 4 was involved in same distinguished between each other
01:40 5 was in 2001 and many other documents that Dr. Rao
01:40 6 submitted, but talked about dual mode.
01:40 7 And this dual mode versus -- sometimes
01:40 8 they call it SLC mode. Sometimes they call it binary
01:40 9 mode. Sometimes they just call it, you know, one-bit
01:40 10 mode. But it was always distinguished. And none of
01:40 11 that documentation talks about a SLC mode as SLC
01:41 12 memory.
01:41 13 And all these were filed in 2012.
01:41 14 Dr. Rao put in both his prior patent as well as 40
01:41 15 documents that set forth a lot of the details that are
01:41 16 used to understand -- for anyone to understand the
01:41 17 specification.
01:41 18 Because really, although there is
01:41 19 statement that there is some wear leveling and some
01:41 20 possibility of quicker and -- wear on SLC memory as
01:41 21 opposed to MLC -- I'm sorry -- MLC memories as opposed
01:41 22 to SLC memories, all this stuff really relates to how
01:41 23 things are written or read or erased. And none of --
01:41 24 all this is background knowledge assumed by the POSITA.
01:41 25 So words matter. Cell versus memory

01:41 1 versus module.

01:41 2 Intrinsic evidence was not before the

01:41 3 Court in the Western Digital case. Essentially what

01:42 4 we've proposed is both the prior patent that was

01:42 5 incorporated by reference with the 40 documents, of

01:42 6 which we've cited perhaps 12 of these patents.

01:42 7 What Dr. Rao claimed was a system rather

01:42 8 than a method of use. Such as binary or pseudoMLC mode

01:42 9 of distinct MLC and SLC modules. It was his choice of

01:42 10 structural modules versus modes. And he knew. He's

01:42 11 very well read and widely and technically astute, and

01:42 12 he knew this when he filed both the '916 patent and the

01:42 13 IDS documents.

01:42 14 So again this is not just admitted prior

01:42 15 art but it's the 2012 vocabulary of the POSITA.

01:42 16 Just very quickly, I've mentioned this

01:42 17 one already. At the beginning, SLC memory was a single

01:42 18 program level memory. That changed over the years.

01:42 19 And today, we may find a lot of conversions with what

01:43 20 Vervain would like to argue.

01:43 21 But MLC memory is multipage memory. This

01:43 22 is shown in -- this is how MLC took off. You read one

01:43 23 page of a logical data and then you write -- you write

01:43 24 a first page and then you write a second page. In

01:43 25 between this, you have to read the first page.

01:43 1 So there's a lot of mechanics that the --
01:43 2 this is -- to write two pages, it's not something that
01:43 3 is in SLC memory. Noting -- not in what was in 1988 or
01:43 4 since that's called SLC memory.
01:43 5 So again, SLC memory's distinct from SLC
01:43 6 mode. I've shown the Cho document distinguishing dual
01:43 7 mode, compare it to SLC NAND flash memory.
01:43 8 Again, Dr. Rao showed a separate MLC and
01:43 9 SLC flash and also specifically called each of these
01:44 10 eight -- in Figure 4 each of the eight-plus modules,
01:44 11 and they could be chips, and only relative to two SLC
01:44 12 chips.
01:44 13 And it's said in the specification that
01:44 14 that kind of proportion is -- would be useful for the
01:44 15 kinds of things that the patent discloses in the
01:44 16 claims.
01:44 17 Well, in the specification and in the
01:44 18 pre-2018 patent claims, the basis for the system claim
01:44 19 is adapted to perform some disclosed function. There's
01:44 20 no new hardware.
01:44 21 The patent owners reply at two -- again,
01:44 22 I said the real dispute is MLC capable memory. But
01:44 23 it's MLC memory operating in binary mode, not SLC
01:44 24 memory.
01:44 25 Dr. Rao never discloses nor claims NAND

01:44 1 flash memory operated in SLC mode. And again,
01:44 2 contrasting that with the controller adapted to not the
01:45 3 nonvolatile memory adapted to operate in MLC or SLC
01:45 4 mode, but distinct SLC and MLC memory modules.
01:45 5 How are they distinguished? MLC memory
01:45 6 can operate in SLC mode. SLC memory cannot operate in
01:45 7 MLC mode. That is, store more than one level of
01:45 8 logical pages in an SLC memory physical page as
01:45 9 understood by the POSITA.
01:45 10 Now, just getting to the point where I
01:45 11 know Your Honor thought that "module" did not need to
01:45 12 be described, but module was put in. It's one of a
01:45 13 very few words that are used to describe the components
01:45 14 of the claimed system.
01:45 15 The term "module" was -- appeared in the
01:45 16 first three patents. It vanished in the '300 patent
01:45 17 and returned for the remaining patents. And it is
01:46 18 important.
01:46 19 And I think that what -- where the
01:46 20 distinction is is that the circuitry that we are -- the
01:46 21 defendants argue is necessary to define what an SLC
01:46 22 memory is and the MLC memory is, that circuitry could
01:46 23 be part of other circuitry.
01:46 24 The term "module" just means more like
01:46 25 specifically that it's something that's complete in

01:46 1 itself and it's interchangeable. That's something that
01:46 2 dropped in this module. And this is what a POSITA
01:46 3 would think. And that's why we make the distinction
01:46 4 that we need to see what -- how these patents give
01:46 5 notice to the public of what is claimed. And with SLC
01:46 6 memory module and MLC module, not MLC memory operating
01:46 7 in different ways.
01:46 8 Thank you.
01:46 9 THE COURT: Does anyone else want to
01:47 10 challenge the Court's construction?
01:47 11 MR. CARRANO: Your Honor, just to recap a
01:47 12 little bit from the Kingston's perspective. We agree
01:47 13 with what Phison said.
01:47 14 So -- but to -- in summary, the patent --
01:47 15 the patents at issue here, and they're all common
01:47 16 specification, they're all in essence the alleged
01:47 17 invention, discloses an architecture. An architecture
01:47 18 with two types of memory, SLC and MLC.
01:47 19 And the architecture's predicated on four
01:47 20 factors: speed, endurance, capacity, and expense.
01:47 21 Four factors on how the inventor came up with the
01:47 22 alleged invention. He -- it's a trade-off of all four
01:47 23 factors to lead to what they disclose as the
01:47 24 architecture.
01:47 25 What Vervain's construction calls for is

01:48 1 one of those four factors, capacity. It ignores speed,
01:48 2 it ignores cost, and ignores endurance.
01:48 3 So the only thing that brings those
01:48 4 factors into the equation is defendants' construction
01:48 5 where it calls for at least a structure of an MLC, a
01:48 6 structure for an SLC, and structure and -- Kingston's
01:48 7 construction has structure in there. Phison's
01:48 8 construction has more words toward the structure.
01:48 9 But what our view is, on this side of the
01:48 10 V, is structure matters because the named inventor told
01:48 11 us it matters. That's how that the predicate for the
01:48 12 whole architecture in which this alleged invention is
01:48 13 predicated on.
01:48 14 To take out one of those four factors,
01:48 15 capacity, one bit, two bit, multiple bits, whatever you
01:48 16 want to call capacity, undermines the predicate for the
01:48 17 alleged invention.
01:48 18 So we, defendants' side, think the
01:49 19 structure aspect of it needs to be infused in the
01:49 20 construction, one, for proper scope and, two, to give
01:49 21 some credence to how this architecture was developed in
01:49 22 the first place.
01:49 23 Thank you.
01:49 24 THE COURT: I'll be back in a second.
01:49 25 (Pause in proceedings.)

01:50 1 THE COURT: I don't need to hear a
01:50 2 response on Claim Terms 1 and 4. I'm going to maintain
01:50 3 my preliminary construction.
01:50 4 With regard to 2 and 5, can we do these
01:50 5 together also or would you like to take up 2 and 5
01:51 6 separately?
01:51 7 MR. CHOW: Your Honor, I think we did
01:51 8 cover 2 and 5.
01:51 9 THE COURT: Oh, I'm sorry. This wasn't
01:51 10 the numbers that I was given. So...
01:51 11 MR. CHOW: So we did 1 and 2 and 4 and 5.
01:51 12 So with --
01:51 13 THE COURT: Okay. Okay. I got it.
01:51 14 So now we're on 3. 3 is blocks.
01:51 15 MR. WHITEHURST: That's correct, Your
01:51 16 Honor.
01:51 17 MR. CHIN: Yes, Your Honor.
01:51 18 THE COURT: And the defendants are
01:51 19 arguing that those are indefinite?
01:51 20 MR. CHIN: That's correct, Your Honor.
01:51 21 THE COURT: Okay. I'll take that up.
01:51 22 MR. CHIN: Okay. Just going to share
01:51 23 screen here.
01:51 24 Okay. Your Honor, from defendants' point
01:51 25 of view, blocks -- excuse me. I'm going a little too

01:52 1 fast here.

01:52 2 The issue is for defendants that the

01:52 3 claims do not explicitly specify the type of block. So

01:52 4 how would a person of ordinary skill have understood

01:52 5 the boundaries of the claim?

01:52 6 And when the specification is considered,

01:52 7 there's at least three different types -- three

01:52 8 different ways blocks are referenced. The

01:52 9 specification references logical blocks, blocks of

01:52 10 data, and physical blocks.

01:52 11 And when the claims themselves are

01:52 12 referenced, there's not an explicit description of what

01:52 13 types of blocks are discussed. So it has to be in

01:52 14 fair -- inferred from context perhaps what type of

01:52 15 block is discussed.

01:52 16 So in '240 patent Claim 1, erasable

01:52 17 blocks, due to the nature -- their description of it --

01:53 18 THE COURT: Hold on. Let me back up

01:53 19 here.

01:53 20 The words "blocks," if we did a count,

01:53 21 would probably be in here, what, like a billion times,

01:53 22 something like that, in the patent?

01:53 23 MR. CHIN: That's probably fair, Your

01:53 24 Honor. Yes.

01:53 25 THE COURT: So what you want me -- you

01:53 1 know, and I get it. You know, I've heard other judges
01:53 2 complain, oh, I was a government major and now I'm
01:53 3 having to do this. And I'm happy to do it.
01:53 4 But how does our system work if someone
01:53 5 prosecutes a patent and we have an examiner skilled in
01:53 6 the art who sees blocks about a thousand times. And
01:53 7 lets -- how -- why -- I don't -- when y'all come in
01:53 8 here and argue this -- I'm not picking on you. I mean,
01:53 9 you're representing your client. You have to do what
01:54 10 you have to do.
01:54 11 But it -- I'm just saying it's insane to
01:54 12 me that you all think I'm in a position, after an
01:54 13 examiner has allowed -- this isn't like where it might
01:54 14 be grammatical, you know, where they say there's a --
01:54 15 there are logical blocks where the first, third, and
01:54 16 fifth and you can't tell which block it is. I get
01:54 17 that.
01:54 18 But this was -- here, you can read all
01:54 19 three. The logical address is the address at which the
01:54 20 logical block of physical sector. The examiner saw
01:54 21 that. This is achieved by creating virtual small
01:54 22 blocks of data or sectors. In most cases, the
01:54 23 controller maintains a lookup table to translate the
01:54 24 memory array physical block address, PBA.
01:54 25 The examiner allowed this. How -- I

01:54 1 don't get your argument on how it's in --- how one
01:54 2 skilled in the art would find the word "block"
01:55 3 indefinite. How does our system work if an inventor
01:55 4 can go and get a patent that says this and a judge can
01:55 5 just say, no. That's indefinite. I don't get it.
01:55 6 MR. CHIN: I understand what you're
01:55 7 asking, Your Honor.
01:55 8 And I'd just like to highlight in
01:55 9 defendants' opening brief, we did say in the
01:55 10 alternative, we'd be fine with the plain and ordinary
01:55 11 meaning where the construction would allow for some
01:55 12 references of blocks to refer to blocks of data and
01:55 13 some to refer to physical blocks or blocks of memory.
01:55 14 So the reason why defendants are arguing
01:55 15 indefiniteness now is because it's -- it's primarily in
01:55 16 relation to the position that Vervain took when it
01:55 17 proposed this term for construction saying it's only
01:55 18 physical blocks.
01:55 19 And if we're going to take a hard line
01:55 20 and say that it's only physical, well, then that can't
01:55 21 work in the context of these patents. And that's why
01:56 22 we have this argument as indefinite.
01:56 23 However, we did say in the alternative,
01:56 24 if we want to take a --
01:56 25 THE COURT: I get that now. Why don't

01:56 1 you focus then only on why my construction, which is
01:56 2 proposed by the plaintiff, I get it, why it can't be
01:56 3 limited to only a physical group of memory cells? Why
01:56 4 don't you focus on that? And maybe you were headed
01:56 5 that way and I just interrupted you. So I apologize if
01:56 6 I did.
01:56 7 MR. CHIN: I appreciate that, Your Honor.
01:56 8 And I didn't mind at all.
01:56 9 I guess the best way to discuss that is
01:56 10 this last term here in the '298 patent, this last
01:56 11 reference to blocks in subsection D of Claim 1, the
01:56 12 text says: Allocate those blocks that receive the most
01:56 13 frequent writes by transferring the contents of those
01:56 14 blocks to the SLC nonvolatile memory module.
01:56 15 Well, if you're allocating the blocks but
01:57 16 you're transferring the contents of those blocks,
01:57 17 there's a little confusion here. Transferring the
01:57 18 contents of those blocks sounds like you're talking
01:57 19 about data, but -- so you're not -- so you're probably
01:57 20 talking about allocating the contents of the container.
01:57 21 So you're talking about data blocks.
01:57 22 But if we -- if we agree with Vervain's
01:57 23 construction, which defendants do not, that every
01:57 24 reference to blocks is physical, it's impossible to
01:57 25 allocate the container itself to something.

01:57 1 We're talking about the contents, which
01:57 2 is the data, which is really why that's the crux of
01:57 3 defendants' indefiniteness argument and the reason why
01:57 4 we say, in the alternative, we would accept a plain and
01:57 5 ordinary meaning that would allow for some references
01:57 6 to be blocks of data and some references to be physical
01:57 7 blocks.
01:57 8 THE COURT: A response to that, please?
01:58 9 MR. MCNETT: Thank you, Your Honor.
01:58 10 The Court's prior construction that of in
01:58 11 a nonvolatile memory, a physical group of memory cells
01:58 12 is correct. It's consistent with both the claims and
01:58 13 the specification.
01:58 14 The Court previously, you know, held this
01:58 15 in the summary judgment order in the Western Digital
01:58 16 case. The face of the claim confirms that the blocks
01:58 17 are in a nonvolatile memory and are physical addresses.
01:58 18 And the specification confirms that they're physical
01:58 19 addresses as well.
01:58 20 So let's take a look at Claim 1 of the
01:59 21 '298 patent. We can see in yellow it begins talking
01:59 22 about the physical MLC nonvolatile memory module
01:59 23 comprising a plurality of individually erasable blocks.
01:59 24 And every time we later refer to blocks,
01:59 25 it's talking about those same blocks.

01:59 1 And defendants in their briefing, as I
01:59 2 understand it, they agree for the vast majority of
01:59 3 these that it can be a physical block. Really the
01:59 4 sticking point is down at -- in the allocate step,
01:59 5 subpart D.
01:59 6 But it's clear, right, it's clear that
01:59 7 that can be a physical block as well, right? It says:
01:59 8 Allocate those blocks by transferring the respective
01:59 9 contents of those physical blocks -- right, those
01:59 10 blocks are physical blocks -- to other physical blocks
02:00 11 in SLC. Right?
02:00 12 That's what the claim language says. It
02:00 13 is consistent with the physical construction.
02:00 14 And if we take a look, this -- almost
02:00 15 this same argument was actually made. This is from
02:00 16 Western Digital's briefing in the prior case. They
02:00 17 said that allocate or segregate only makes sense in the
02:00 18 context of logical blocks.
02:00 19 The Court's already reviewed this
02:00 20 argument and already rejected this argument. It should
02:00 21 do the same here.
02:00 22 THE COURT: Any rebuttal?
02:00 23 MR. CHIN: Yes, Your Honor.
02:00 24 We'd just like to point out that in the
02:00 25 Western Digital and Micron cases, there was never an

02:00 1 argument regarding indefiniteness.
02:00 2 Micron and Western Digital argued only
02:00 3 that the claim should be given its plain and ordinary
02:00 4 meaning, but they didn't discuss the difficulty here if
02:01 5 we take a hard and fast interpretation of these blocks
02:01 6 as only physical.
02:01 7 Thank you.
02:01 8 THE COURT: You bet.
02:01 9 Anything else?
02:01 10 Okay. I'll be back in a second.
02:01 11 (Pause in proceedings.)
02:03 12 THE COURT: The Court's going to maintain
02:03 13 its preliminary construction.
02:03 14 Moving on to No. 6. Controller. Adapted
02:03 15 to perform, and goes on from there. And the Court
02:03 16 found plain and ordinary meaning and found that 112(6)
02:03 17 did not apply.
02:03 18 I'll hear from defendants on this.
02:03 19 MR. CARRANO: Thank you, Your Honor.
02:03 20 Next slide.
02:03 21 Okay. So defendants' position is that
02:03 22 112(6) applies, and that once that's applied, there's
02:03 23 no disclosure of corresponding structure; therefore,
02:03 24 the term is invalid.
02:03 25 Next slide.

02:03 1 So here's an instance where it's -- the
02:03 2 term comes up, the "controller" term comes up. And as
02:03 3 you can see, the highlighted sections have controller
02:03 4 on top and then at least four recited functions.
02:04 5 Next slide.
02:04 6 And then the next slide, we augmented
02:04 7 that claim to just put means in there. And you can see
02:04 8 this is in classic means-plus-function form.
02:04 9 On top of those functions that are
02:04 10 recited in the previous claim, other functions with
02:04 11 controller and FTL are cited in other patents. And
02:04 12 we've mapped those other functions across those other
02:04 13 patents that have additional functions beyond the four
02:04 14 that we just illustrated.
02:04 15 So in short, controller and FTL is
02:04 16 recited and there's at least -- I think a total of
02:04 17 eight or nine functions tied to the word "controller."
02:04 18 So as a predicate, in our view, clearly written in
02:04 19 means-plus-function format.
02:04 20 Next slide.
02:04 21 So of course, means is not in the claims.
02:04 22 So that's where we apply Williamson. Williamson tells
02:05 23 us there's two inquiries. Inquiry 1, whether or not
02:05 24 the term itself has sufficiently definite structure.
02:05 25 THE COURT: I have done 400 Markmans.

02:05 1 MR. CARRANO: Okay.
02:05 2 THE COURT: I don't -- I really don't
02:05 3 need what Williamson says.
02:05 4 MR. CARRANO: Okay. Great.
02:05 5 So just the point being then, where we,
02:05 6 defendants, are focusing on Williamson, Inquiry 2 only.
02:05 7 Vervain in their briefing largely focuses on Williamson
02:05 8 Inquiry 1.
02:05 9 So there's a disconnect. They never
02:05 10 really addressed our points directly. They addressed
02:05 11 whether or not there's some structure in controller.
02:05 12 We're not saying there isn't.
02:05 13 We're saying that a controller doesn't
02:05 14 have sufficient structure to perform the recited
02:05 15 functions, which are between four and nine functions
02:05 16 across all the patents.
02:05 17 So that's the crux of the argument.
02:05 18 We're addressing Williamson Inquiry 2. They've largely
02:05 19 focused on 1, so not responsive to our position.
02:05 20 Next slide.
02:05 21 So in our view, we've come forward with
02:06 22 evidence and argument as to Inquiry 2 gets this into
02:06 23 112(6). Vervain really doesn't head-on address that.
02:06 24 They address that -- they address the Inquiry 1 again
02:06 25 and they never address whether or not there's any

02:06 1 structure disclosed if there is 112(6).
02:06 2 So -- so what they don't do is in the
02:06 3 alternative, if 112 does apply, what the corresponding
02:06 4 structure would be. We're saying it's not disclosed;
02:06 5 they're just silent on that.
02:06 6 So two parts with this. One, they really
02:06 7 didn't address our Inquiry 2 position. And two, they
02:06 8 never had a backup plan if 112(6) does apply, what the
02:06 9 corresponding structure would be or what would be
02:06 10 disclosed.
02:06 11 Next slide.
02:06 12 So they waive -- effectually waived
02:06 13 any -- or meaningfully waived any response to our
02:06 14 positions.
02:06 15 So not to go into this too much, but the
02:06 16 cases rely on largely are Williamson of course, and
02:07 17 Egenera, just that some structure's not enough,
02:07 18 specifically when there's recited functions applied to
02:07 19 the term at issue. And then we have two cases --
02:07 20 district court cases that were affirmed at the Federal
02:07 21 Circuit, Velocity and Konami, which are reasonably on
22 point for this case.
02:07 23 In both cases, both two cases, Konami and
02:07 24 Velocity found controller and processor, close cousin
02:07 25 to controller, were -- 112 was applied and the

02:07 1 corresponding structure was not there or not disclosed,
02:07 2 so therefore indefinite. So we think that these two
02:07 3 cases are instructive on this case.
02:07 4 Next slide.
02:07 5 So there's on -- this analysis on this
02:07 6 slide here is a repeat of what I've said. And largely
02:07 7 speaking is that the only structure for a controller in
02:07 8 the spec is an off-the-shelf part. It's an
02:08 9 off-the-shelf controller. So you go to a store. You
02:08 10 buy a controller.
02:08 11 Is it a physical thing? Yes. It is.
02:08 12 Can it execute basic instructions? Yes.
02:08 13 It can.
02:08 14 For some cases that -- that's good enough
02:08 15 for corresponding structure under 841. In this case,
02:08 16 it is not. Because that controller has to be
02:08 17 programmed and programmed to do apparently or allegedly
02:08 18 the novel features to this patent. So there's -- these
02:08 19 novel features by -- for way of example, we listed up
02:08 20 on slide -- this slide here.
02:08 21 So these are allegedly novel features.
02:08 22 So you can't go to the store and buy a controller to do
02:08 23 these features. And allegedly these features are not
02:08 24 in the prior art as of the patent.
02:08 25 So one of their arguments about, well,

02:08 1 one of ordinary skill would just look at the prior art
02:08 2 and figure out how to do it, well, then the patent's
02:08 3 invalid on the face of it. We'll take that, but I
02:08 4 don't think that's really their position.
02:08 5 Their position is just to try to come up
02:08 6 with something to point to about the corresponding
02:08 7 structure.
02:08 8 Next slide.
02:08 9 So we presented evidence that -- from our
02:09 10 expert that a general-purpose processor, as the Court
02:09 11 knows, has to be programmed to do specific functions or
02:09 12 execute a program, and that that program is obviously
02:09 13 not in the claim and also not disclosed in the
02:09 14 corresponding specification.
02:09 15 Next slide.
02:09 16 This slide, again, is kind of a repeat of
02:09 17 what I said already, that Vervain at best argues that,
02:09 18 yeah, processor has a structure. That's good enough.
02:09 19 No. That's not good enough for Inquiry
02:09 20 2, which is our argument.
02:09 21 And the Fed Circuit has continually --
02:09 22 consistently rejected the proposition that Vervain
02:09 23 argues here, that a POSITA could find ways to program
02:09 24 it. That's not good enough. That's not good enough to
02:09 25 keep it out of the realm of 112(6) and that's not good

02:09 1 enough to avoid invalidity under 112(2) if it is
02:09 2 112(6).
02:09 3 Next slide.
02:09 4 So just to more specifically, even if,
02:10 5 even if they don't have corresponding structure --
02:10 6 THE COURT: I know -- I know all this.
02:10 7 MR. CARRANO: Okay. So do you have any
02:10 8 questions for me then?
02:10 9 THE COURT: No.
02:10 10 MR. CARRANO: All right. Thank you.
02:10 11 THE COURT: A response?
02:10 12 MR. WHITEHURST: Thank you, Your Honor.
02:10 13 Alan Whitehurst for Vervain.
02:10 14 We just heard some arguments about
02:10 15 Vervain waved arguments under the second part of --
02:10 16 THE COURT: Don't need to hear a waiver
02:10 17 argument.
02:10 18 MR. WHITEHURST: That's not true.
02:10 19 And as Your Honor knows, Inquiry 2 only
02:10 20 is relevant if you can get past Inquiry 1. And, you
02:10 21 know, much like you acknowledge for blocks,
02:10 22 "controller" is a term that examiners have seen
02:10 23 thousands of times and it's regularly used in patent
02:10 24 claims.
02:10 25 And as counsel admitted, the claims don't

02:11 1 say the word "means." Could Dr. Rao have used
02:11 2 means-plus-function language? He did not. Instead, he
02:11 3 used the term "controller."
02:11 4 And as you know, defendants have a burden
02:11 5 to overcome the presumption that 112(6) doesn't apply.
02:11 6 And they can't do that. "Controller" is not a nonce
02:11 7 term.
02:11 8 We've already distinguished the case that
02:11 9 was displayed by Kingston's counsel Konami. It wasn't
02:11 10 talking about controller. It was talking about a
02:11 11 different situation, a game controller.
02:11 12 In instances like the claims here, where
02:11 13 you're talking about the controller, the Federal
02:11 14 Circuit has already addressed that.
02:11 15 If we could put up Vervain's Slide 58.
02:11 16 MR. MCNETT: If defendants could take
02:11 17 down their slides, please. Thank you.
02:12 18 MR. WHITEHURST: Your Honor, as you know,
02:12 19 the Federal Circuit in Telecordia and SySmex --
02:12 20 If we could go to Slide 59, please.
02:12 21 Well, we don't need the slides.
02:12 22 But as the Federal Circuit has already
02:12 23 said, controller is sufficient structure and
02:12 24 means-plus-function does not apply. Especially here,
02:12 25 where the term "means" was not used.

02:12 1 THE COURT: I'll be back in a second.
02:12 2 MR. WHITEHURST: Thank you, Your Honor.
02:12 3 (Pause in proceedings.)
02:13 4 THE COURT: The Court is going to
02:13 5 maintain its construction.
02:13 6 Next up is No. 7, data integrity test.
02:13 7 I just have a difficult time believing
02:14 8 anyone's asking me to construe the words "data
02:14 9 integrity test."
02:14 10 So having said that, if defendants really
02:14 11 want to take up my time doing that.
02:14 12 MR. CHIN: Thank you, Your Honor. I'm
02:14 13 just -- I'm sorry, Your Honor. Please go ahead.
02:14 14 THE COURT: No, please.
02:14 15 MR. CHIN: We just need to make one point
02:14 16 for defendants' side, and that's really with respect to
02:14 17 what was said in the prosecution history. That's
02:14 18 really the core of this argument here and then we can
02:14 19 move on.
02:14 20 But basically, there was a disclaimer --
02:14 21 defendants' position is that there was a disclaimer
02:14 22 during the prosecution of the -- I believe it was the
02:14 23 '300 patent, specifically in this 2020 remarks that the
02:14 24 applicant made during prosecution.
02:14 25 In that, they distinguished error

02:14 1 correction codes, EDCs, CRCs from the data integrity
02:15 2 test and they said it was a compare operation. So this
02:15 3 really goes to what was represented during the
02:15 4 prosecution history, Your Honor.
02:15 5 And then after that representation was
02:15 6 made in applicant's remarks, then some of the later
02:15 7 claims were amended to explicitly state this
02:15 8 comparison.
02:15 9 So that's really what we're arguing here,
02:15 10 Your Honor. So that's -- that's what we have for you.
02:15 11 Thank you.
02:15 12 THE COURT: Okay. I'm going to maintain
02:15 13 my construction.
02:15 14 Next up is No. 8, memory space.
02:15 15 Defendant argues that it's indefinite, and I'll take
02:15 16 that up.
02:15 17 MR. STRONCZER: Thank you, Your Honor.
02:15 18 Ryan Stronczer for the defendants.
02:15 19 The argument here is pretty simple.
02:15 20 The -- first of all, the term "memory space" is not
02:15 21 used anywhere in the specification.
02:15 22 And the plaintiffs, you know, in their
02:15 23 briefing they essentially say it means three different
02:16 24 things. They say it can mean logical memory space --
02:16 25 logical memory, physical memory, or just the concept of

02:16 how much memory is available in a system, whether
02:16 that's nonvolatile, volatile, you know, there's no
02:16 like -- they don't -- they don't distinguish either.
02:16 Their example is when you're a child
02:16 knowing the iPad runs out of memory space. Well,
02:16 that's not what's claimed in the -- that's not what --
02:16 how the claims are -- how the claims recite memory
02:16 space.
02:16 And if the defendants or -- can -- or
02:16 sorry, plaintiffs can take down their slides, I can
02:16 share mine.
02:16 Oh, there we go.
02:16 So here, you know, here, for example, in
02:16 the '300 patent, the memory space contains a volatile
02:16 memory space and a nonvolatile memory space. And so
02:16 that contains both multilevel and SLC and MLC.
02:17 And if we look at Claim -- if we look at
02:17 some of the other claims here, the -- you know, in the
02:17 '369 patent, it refers -- you know, arguably it refers
02:17 to both logical and physical -- well, it expressly says
02:17 logical and physical memory space.
02:17 But here, it says volatile memory space
02:17 and nonvolatile memory space, so...
02:17 And then in the '546, it just says memory
02:17 space with no guidance.

02:17 1 And in '300, it says the nonvolatile
02:17 2 memory only can be mapped into the MLC -- into the
02:17 3 memory space, which then suggests it's a logical
4 division.
02:17 5 But then, for example, the '612 patent,
02:17 6 it says the memory space contains MLC space and a
02:17 7 random access volatile memory element. So that, in the
02:17 8 '612 claims, it mixes physical and logical and -- into
02:17 9 the same memory space.
02:17 10 So from our perspective, there's just
02:18 11 no -- the term just has no real guidance in the
02:18 12 specification or its usage in the claims as to whether
02:18 13 it refers to physical or volatile -- physical or
02:18 14 logical memory space.
02:18 15 THE COURT: Were you finished? I
02:18 16 couldn't tell.
02:18 17 MR. STRONCZER: Oh, sorry. Yes, Your
02:18 18 Honor.
02:18 19 THE COURT: A response?
02:18 20 MR. DORMAN: Yes, Your Honor. This is
02:18 21 Christian Dorman on behalf of Vervain.
02:18 22 And the crux of defendants' arguments is
02:18 23 that memory space is indefinite because it can be used
02:18 24 in different contexts. And we think that this only
02:18 25 proves that memory space is a broad simple term that

02:18 1 should be given its plain and ordinary meaning.
02:18 2 And if we can go to the next slide.
02:18 3 Memory space is used throughout the
02:18 4 asserted patents, including here in Claim 1, simply to
02:18 5 refer to a volatile memory space and a nonvolatile
02:18 6 memory space.
02:19 7 Go to the next slide.
02:19 8 Again, the crux of this argument is
02:19 9 whether a person of ordinary skill would have
02:19 10 understood what is meant by memory space. And looking
02:19 11 at the evidence, we think the answer to that question
02:19 12 is clearly yes.
02:19 13 In Dr. Rao's patents, he refers to a
02:19 14 memory storage space. And that's shown at the top of
02:19 15 this slide. And a memory space simply refers to where
02:19 16 data is stored. And a memory storage space refers to
02:19 17 the total amount of storage space available in the
02:19 18 memory.
02:19 19 And beyond that, Phison uses memory space
02:19 20 in its own patents. So Phison here is arguing that a
02:19 21 person of ordinary skill wouldn't have understood this
02:19 22 term, but at the same time, their own engineers use
02:19 23 this term in their patents. And we think this shows
02:19 24 that they must have understood what the term meant
02:19 25 then.

02:19 1 Going to the next slide.
02:19 2 Memory space is also used in line with
02:19 3 its plain and ordinary meaning in textbooks in the art.
02:19 4 Including the Micheloni textbook describes a memory
02:20 5 space where data are actually stored. And the fact
02:20 6 that Micheloni includes this definition or description
02:20 7 of a memory space in line with its plain and ordinary
02:20 8 meaning, we think further supports that this term
02:20 9 certainly is not indefinite.
02:20 10 And one point here is that Vervain's
02:20 11 expert Dr. Sunil Khatri reviewed the evidence and he
02:20 12 submitted an expert report. And in that report, he
02:20 13 explained that his opinion is that memory space simply
02:20 14 refers to where data is stored and this term simply is
02:20 15 not indefinite.
02:20 16 This lies in contrast to defendants who
02:20 17 are working with an expert and decided not to
02:20 18 provide --
02:20 19 THE COURT: I give no weight to whatever
02:20 20 you guys have an expert come in and say on
02:20 21 indefiniteness. No weight. So you can move on.
02:20 22 MR. DORMAN: Okay. Thank you, Your
02:20 23 Honor.
02:20 24 And we would just sum up that memory
02:20 25 space is a simple broad term that simply refers to

02:21 1 where data is stored and just because it's broad does
02:21 2 not mean it's indefinite.
02:21 3 And if Your Honor doesn't have any
02:21 4 questions, that'll be all from Vervain.
02:21 5 THE COURT: A response?
02:21 6 MR. STRONCZER: Yes. Just briefly, Your
7 Honor.
02:21 8 The issue isn't that memory space -- that
02:21 9 a POSITA wouldn't have understood the term "memory
02:21 10 space" to have a general meaning in the art. The issue
02:21 11 is that in the claims, there's no -- there's no
02:21 12 adjective or no modifier attached to the memory space
02:21 13 to indicate whether it's referring to a physical or a
02:21 14 logical concept when the claims appear to mix the two
02:21 15 in the same -- mix the two usages in the same claim.
02:21 16 THE COURT: Okay. Again, were you done?
02:21 17 MR. STRONCZER: Yeah. I'm sorry, Your
02:21 18 Honor. Unless you have any questions.
02:21 19 THE COURT: Anything else?
02:21 20 MR. DORMAN: No, Your Honor.
02:22 21 THE COURT: Okay. I'll be back in a
02:22 22 second.
02:22 23 (Pause in proceedings.)
02:22 24 THE COURT: The Court will maintain its
02:22 25 preliminary construction.

02:22 1 I'll next take up No. 9, controller,
02:22 2 maintain controlling, performing controller, et cetera.
02:22 3 MR. CHOW: Yes, Your Honor. I'll be very
02:22 4 brief on this.
02:23 5 THE COURT: No. There's no --
02:23 6 actually -- I mean, you're welcome to be brief. I
02:23 7 don't believe you, but -- that you'll basically brief.
02:23 8 (Laughter.)
02:23 9 THE COURT: But this is one that I
02:23 10 think -- I'm happy to take whatever time we need on it.
02:23 11 I think this one could use a fulsome argument. So take
02:23 12 whatever time you'd like, please.
02:23 13 MR. CHOW: Yeah. This -- again, this --
02:23 14 Your Honor is well familiar with the IPXL case. And
02:23 15 all I would like to say for the record is that, in
02:23 16 conjunction with -- our view is that controller was the
02:23 17 open area that -- other than the SLC and MLC modules,
02:23 18 was the open area for what the controller does.
02:23 19 And we have trouble saying that the
02:23 20 controller has certain functions. Here, the -- it is
02:23 21 stated in the patent owner's reply as well as
02:23 22 Dr. Khatri that basically says the claims describe how
02:23 23 the controller is configured to store data and
02:24 24 configured to operate.
02:24 25 But there is no such description in how

02:24 1 the controller's configured. It's only a recitation of
02:24 2 the steps. And that's our contention that claims don't
02:24 3 recite configuration such as every time the host
02:24 4 requires a write, one would send this signal to that
02:24 5 signal. And none of that's in there.
02:24 6 So the concern is that the configuration
02:24 7 has to be presumed from the ordinary NAND flash
02:24 8 controllers. And that the -- up and down the line in
02:24 9 all our contentions this -- this is not disclosed. And
02:24 10 certainly here, we talk about method steps. They're
02:24 11 really supposedly follow figures 3A and 3B which is a
02:24 12 method for utilizing a NAND flash memory system. This
02:24 13 is the data integrity test.
02:24 14 But again, the way it's set up in terms
02:24 15 of verbs, the definiteness meets the other aspect of
02:25 16 IPXL/MPEP, which is it doesn't give notice of who's
02:25 17 responsible for making these method steps.
02:25 18 I think that Your Honor has our briefing
02:25 19 on this.
02:25 20 THE COURT: I do.
02:25 21 MR. CHOW: Thank you.
02:25 22 THE COURT: A response?
02:25 23 MR. MCNETT: Yes, Your Honor.
02:25 24 Hold on one second. If defendants could
02:25 25 take their slides down, please.

02:25 1 MR. CHOW: Sure.

02:25 2 MR. MCNETT: Your Honor, the '300 patent

02:25 3 simply does not include method steps in the apparatus

02:25 4 claim as IPXL has. It claims a controller that's part

02:25 5 of the apparatus and it explains through a wherein

02:25 6 clause how that controller is configured to operate.

02:26 7 And that is consistent with the case law on the issue.

02:26 8 So let's take a look at Claim 1.

02:26 9 We've got at least one controller to

02:26 10 operate memory elements. And then it explains that

02:26 11 it's that, you know, the controller is configured to

02:26 12 maintain the address table. It's configured to control

02:26 13 access. It's operable to store data. And -- right?

02:26 14 And that it's configured to perform a data integrity

02:26 15 test.

02:26 16 And that's -- that type of claiming is

02:26 17 permissible under the Federal Circuit's decision in

02:26 18 Mastermine, where they -- where the Federal Circuit

02:26 19 held that verbs can represent permission -- permissible

02:26 20 functional language to describe capabilities of a

02:26 21 physical module.

02:27 22 And if you look at the claim in

02:27 23 Mastermine, it's very similar to the claim here. So

02:27 24 they have a reporting module and they say wherein that

02:27 25 reporting module presents, receives a selection from

02:27 1 the user, and generates a database query. All of those
02:27 2 things are permissible and they don't render the claim
02:27 3 indefinite.
02:27 4 The cases that defendants relied on in
02:27 5 their briefing to show -- to argue indefiniteness were
02:27 6 substantially different.
02:27 7 So IPXL itself said the system of Claim 2
02:27 8 wherein the user uses the input means. All right? It
02:27 9 talks about specifically action by a user. We don't
02:27 10 have any claim language of that type in any of the
02:27 11 asserted claims here.
02:28 12 Similarly, Rembrandt, there, they had a
02:28 13 device comprising a first buffer means, a fractional
02:28 14 encoding means, and a comprising transmitting. And
02:28 15 that -- that doesn't make sense. You've got a device
02:28 16 that comprises a verb.
02:28 17 Again, we don't have that same language.
02:28 18 We have -- we don't say that the controller comprises
02:28 19 performing. Right? We say wherein, right, the
02:28 20 controller maintains an address table and all the other
02:28 21 things that are part of the claim.
02:28 22 And finally, the Power Integrations case
02:28 23 that they relied on in their briefing, it's got similar
02:28 24 issues, right? It's -- it claims when a control signal
02:28 25 is received, and then says that that control signal is

02:28 1 provided that somebody else has certain conditions for
02:29 2 providing that control signal.
02:29 3 Again, we don't have anything akin to
02:29 4 that here.
02:29 5 So this -- so this term is completely
02:29 6 consistent with the Federal Circuit's case law on
02:29 7 indefiniteness and it needs no construction and it's
02:29 8 not indefinite.
02:29 9 Thank you.
02:29 10 THE COURT: Any response?
02:29 11 MR. CHOW: Just a response that we
02:29 12 started with, that we do not agree that what is -- that
02:29 13 the claims show how it's operated or how, et cetera.
02:29 14 And I would urge the comparison with the
02:29 15 cases that suggest this is a capability question. But
02:29 16 there is no -- in our view, that it's the -- is not
02:29 17 disclosed by the claims how the operation works. No
02:29 18 source, no -- in many cases no source, no destination,
02:30 19 or how it's sent there.
02:30 20 THE COURT: Anything else?
02:30 21 MR. MCNETT: No, Your Honor.
02:30 22 THE COURT: Okay. I'll be back in a
02:30 23 second.
02:30 24 (Pause in proceedings.)
02:31 25 THE COURT: The Court is going to

02:31 1 maintain its preliminary construction.

02:31 2 No. 10 is memory element which defendant

02:31 3 argues is indefinite. I'll hear that argument, please.

02:31 4 MR. CHIN: Thank you, Your Honor.

02:31 5 Very quickly, Your Honor, we just want to

02:31 6 make two main points with respect to memory element.

02:31 7 As you know, defendants' construction is

02:31 8 that this is indefinite. And it does appear a number

02:31 9 of times in the later-issued patents.

02:31 10 But the two main points we want to make

02:31 11 is that Vervain claims that this issue here is about

02:32 12 breadth. Defendants' position is not that you can't

02:32 13 have a broad term in a claim.

02:32 14 The question here is whether or not using

02:32 15 a broad term like this is going to, with the assistance

02:32 16 from the specification, inform a person of ordinary

02:32 17 skill as to the scope of these claims. And there's

02:32 18 nothing in the specification regarding memory element

02:32 19 that helps a person of ordinary skill ascertain what

02:32 20 the scope of these claims is.

02:32 21 And even when memory element is looked at

02:32 22 in terms of the claims across the five patents that use

02:32 23 it, sometimes memory element is referred to items that

02:32 24 are mapped to memory space. Sometimes it's referring

02:32 25 to random access volatile memory that's not in memory

02:32 1 space. Just to name two examples.
02:32 2 And that's the crux of defendants'
02:32 3 argument suggesting that this term should be
02:32 4 indefinite.
02:33 5 Thank you, Your Honor.
02:33 6 THE COURT: Okay. I'm going to find the
02:33 7 claim term not indefinite.
02:33 8 Next up, I'll take up stored data.
02:33 9 MR. CARRANO: So -- yeah. Stored data.
02:33 10 Next slide.
02:33 11 So just briefly again. Stored data is
02:33 12 two aspects of this, where the data's located and the
02:33 13 scope of data. What data can constitute within the
02:33 14 scope of the claim.
02:33 15 Next slide.
02:33 16 Next slide.
02:33 17 Next slide.
02:33 18 We'll go to the next slide. We'll just
02:33 19 keep on going. Yeah. This slide here.
02:33 20 So, Your Honor, I'd like to just focus on
02:33 21 the disclosure itself.
02:34 22 So disclosed embodiment. Data comes in
02:34 23 from the processor. It goes into the controller. And
02:34 24 that's described or -- as received data. And that data
02:34 25 is then stored into DRAM or the volatile memory and

02:34 1 then ultimately stored into the nonvolatile memory, the
02:34 2 MLC/SLC.
02:34 3 So data comes in, stored in volatile
02:34 4 memory DRAM, and also stored in nonvolatile memory,
02:34 5 MLC/SLC. So data's always the same or it should be the
02:34 6 same.
02:34 7 The crux of the alleged invention is in
02:34 8 essence, if there's errors, we can correct it. So when
02:34 9 data's stored, it might get corrupted somehow and we
02:34 10 can correct it and restore it someplace else.
02:34 11 But the data, the data in which this
02:34 12 patent's described and how the applicant distinguished
02:34 13 the prior art is just payload data or operable data or
02:34 14 user data, just data. And the data should be the same
02:35 15 in all those locations, coming in, stored in volatile
02:35 16 memory, and stored in nonvolatile memory.
02:35 17 So I'll take this term a little bit in
02:35 18 context with retained data because that's the next term
02:35 19 as well.
02:35 20 So the adjective, stored data versus
02:35 21 retained data, the way the applicant or the patentee
02:35 22 described it, it's based on the location of where that
02:35 23 data is stored. Retained data's stored in the DRAM or
02:35 24 the volatile memory, and stored data is in the
02:35 25 nonvolatile or MLC/SLC.

02:35 1 So our construction for stored data is
02:35 2 received data stored in nonvolatile memory. Just -- it
02:35 3 just applies the data which is in a number of places to
02:35 4 a particular site, the site in which the patent talks
02:35 5 about, where stored data is.
02:35 6 We just want to make sure that there's no
02:35 7 ambiguity about when you're talking about data, which
02:36 8 data are we talking about, or more specifically, where
02:36 9 that data is.
02:36 10 So our construction is just to ensure
02:36 11 that everyone knows or should know what the claims are
02:36 12 calling for and giving notice to what -- what set of
02:36 13 data we're talking about, retained data versus stored
02:36 14 data or received data. Those are the three
02:36 15 possibilities.
02:36 16 So what we're trying to do with our
02:36 17 construction is just nail that down. Because there are
02:36 18 times in the claims where it just calls for data.
02:36 19 And then we've seen this before with
02:36 20 other terms, without the adjective "stored,"
02:36 21 "retained," or "received," it creates an ambiguity. So
02:36 22 we're not saying it's invalid. We're just saying that
02:36 23 it requires construction.
02:36 24 So that's one part of this for both
02:36 25 stored and retained data is where that data is in this

02:36 1 system. Is it coming in? Is it stored in volatile
02:36 2 memory? Or is it stored in nonvolatile memory? And
02:36 3 each one of those has a different modifier: Received
02:36 4 is coming in, stored in nonvolatile memory, retained in
02:36 5 DRAM or volatile memory.
02:36 6 The other aspect of this --
02:37 7 Next slide. Go down to -- keep going.
02:37 8 So one point on this, so that's how the
02:37 9 spec describes stored data. And that's confirmed in
02:37 10 the '546 prosecution history where the applicant was
02:37 11 talking about one of the amendments, and it couldn't be
02:37 12 clearer about this. We have a quote here from the file
02:37 13 history, and it makes it clear what's stored data,
02:37 14 what's --
02:37 15 Will you go back -- back -- back one?
02:37 16 I'm sorry. Yeah.
02:37 17 This is the quote. This is the quote in
18 this slide here.
02:37 19 It makes it clear that there's received
02:37 20 data, stored data, and retained data in those three
02:37 21 different places. Coming in, in the MLC/SLC, and also
02:37 22 in the DRAM or volatile memory.
02:37 23 So again, our construction is just to
02:37 24 make clear where in the claims just calls for data,
02:37 25 which -- what site is it in. That's why we have our

02:37 1 construction.

02:37 2 Okay. Go to the next slide.

02:37 3 And the applicant also distinguished the

02:38 4 prior art on this issue about where the data is in

02:38 5 relation to distinguishing prior art. They

02:38 6 distinguished the comparison test about where you're

02:38 7 getting the data from to do the comparison.

02:38 8 In, for example, Yu reference, it was not

02:38 9 coming from the stored -- is not coming from the

02:38 10 volatile memory. So they basically say -- the

02:38 11 applicant says that the -- Yu does not use stored data.

02:38 12 So all this is consistent -- not

02:38 13 disclaimer. What we're saying here, this is just

02:38 14 consistent use of the terms as we construe them.

02:38 15 Next slide.

02:38 16 Okay. So this is more about -- now this

02:38 17 is the second part. The first part was the adjective

02:38 18 about where the data is in the system. This part is

02:38 19 about the scope of data.

02:38 20 So the patent itself just talks about

02:38 21 data. And we have some evidence from our expert that

02:38 22 says a POSITA would understand data to be payload data

02:38 23 or just user data.

02:38 24 The specification doesn't -- you don't

02:38 25 need an expert for this -- the specification does not

02:39 1 disclose error codes like CRC codes or ECC codes. It
02:39 2 doesn't express -- doesn't expressly disclose those as
02:39 3 data, nor does the patent expressly talk about doing
02:39 4 comparisons using error correction codes.
02:39 5 So basically the patents all across the
02:39 6 board are divorced from the use or the possession of
02:39 7 error correction codes.
02:39 8 And then the file history --
02:39 9 Next page.
02:39 10 So in -- what is done in the patent as
02:39 11 far as detecting errors is a brute force comparison
02:39 12 between what is stored in the retain -- stored in
02:39 13 volatile memory or retained data with what is stored in
02:39 14 the nonvolatile memory or the stored data, and a brute
02:39 15 force comparison between the two.
02:39 16 Now, error correction codes of course, as
02:39 17 you know, in 2011, 2013, 2014, whatever time frame of
02:39 18 the patents, were well-known. The inventor did not use
02:40 19 that in his description about how you do the
02:40 20 comparison. So error correction codes or any codes
02:40 21 like that, either generated or part of data, are not
02:40 22 within the scope of the claims.
02:40 23 So again, our construction is meant to be
02:40 24 clear where the data is in the claims. When the claims
02:40 25 call for data, we want to be clear as to is it in

02:40 1 nonvolatile memory or volatile memory or received data.
02:40 2 And second, by applicant's own use of the
02:40 3 term, it does not include any type of error correction
02:40 4 codes within the data or the generation of error
02:40 5 correction codes to do the comparison.
02:40 6 Next slide.
02:40 7 Okay. So I've handled a lot of this
02:40 8 already.
02:40 9 All right. So in summary, our
02:40 10 construction is receive data -- this is for stored
02:40 11 data. Received data that's stored in nonvolatile
02:40 12 memory.
02:40 13 And again, the key parts here is that
02:41 14 we're focusing on the adjective "stored," where it's
02:41 15 stored, and then two, the scope of data being payload
02:41 16 data or just user data not including error correction
02:41 17 codes, which were distinguished in the file history
02:41 18 with the prior art.
02:41 19 Thank you.
02:41 20 THE COURT: Okay. The Court is going to
02:41 21 maintain its preliminary construction on that.
02:41 22 On Claim Term 12, retain data, the Court
02:41 23 is going to maintain its plain and ordinary meaning
02:41 24 construction.
02:41 25 And I have two claim terms left and

02:41 1 20 minutes left before my next hearing. So you all
02:41 2 deal with these accordingly. 13 and 14, both of which
02:41 3 you argue are indefinite.
02:41 4 We'll start with Claim Term 13.
02:41 5 MR. ROSBROOK: Your Honor, this is Andy
02:41 6 Rosbrook speaking on behalf of defendants.
02:42 7 This is the maximize term, just to make
02:42 8 sure we're on the same page.
02:42 9 THE COURT: I have 13 is: The mapping is
02:42 10 performed as necessitated by the system to maximize
02:42 11 lifetime. No. 14 is remapping and transfer data.
02:42 12 MR. ROSBROOK: Fantastic. I think we're
02:42 13 on the same page.
02:42 14 So for this "mapping is performed to
02:42 15 maximize lifetime" term, defendants argue it's
02:42 16 indefinite because there's no objective guidance in the
02:42 17 patents to inform a person of skill in the art how to
02:42 18 tell when you've maximized the lifetime in accordance
02:42 19 with the alleged invention.
02:42 20 Now, Vervain's main argument is that
02:42 21 "maximize" merely means an increase in the lifetime.
02:42 22 That it's identical to another word used in the claims,
02:42 23 and that -- the word "enhanced." But the patent
02:42 24 themselves show otherwise. And I think probably the
02:42 25 best evidence for seeing this is in the claims

02:43 1 themselves.

02:43 2 Up on the screen, I've pulled up Claim 1

02:43 3 of the '300 patent.

02:43 4 And toward the end of that claim, you've

02:43 5 got two steps. First step, up top here on the slide in

02:43 6 blue, you have a mapping step that is performed to

02:43 7 maximize the lifetime.

02:43 8 Then later, after there's been a data

02:43 9 integrity test failure, there's a remapping that

02:43 10 happens. And there, the goal has changed. You're no

02:43 11 longer trying to maximize the lifetime, you're just

02:43 12 trying to achieve enhanced endurance.

02:43 13 What we think this particular claim

02:43 14 illustrates very clearly is that the patentee knew how

02:43 15 to say "enhanced." It knew how to express this concept

02:43 16 of only increasing the endurance. But that's not what

02:43 17 they chose to do in this first instance up here in

02:43 18 blue. There, they specifically chose a different word,

02:44 19 "maximize lifetime."

02:44 20 And as the Court is well aware, it's a

02:44 21 fundamental precept that different words within the

02:44 22 claim will carry different meanings. And because of

02:44 23 that, we can't presume that "maximize" means enhance in

02:44 24 these claims.

02:44 25 It's also Vervain's own evidence supports

02:44 1 defendants' position. They've put in this selection
02:44 2 from Merriam-Webster. They've -- the very first listed
02:44 3 description there is that it means -- "maximize" means.
02:44 4 THE COURT: I don't care. I don't care
02:44 5 about extrinsic evidence.
02:44 6 MR. ROSBROOK: Fully fair.
02:44 7 The -- Vervain's other argument is a bit
02:44 8 of misdirection. They say that lifetime and endurance
02:44 9 are interchangeable. Or lifetime and endurance are
02:45 10 interchangable. Those aren't the words that we're
02:45 11 fighting about here.
02:45 12 We actually agree that lifetime and
02:45 13 endurance are interchangeable. And it's because the
02:45 14 specification makes it clear that they are. It -- when
02:45 15 it uses the term "lifetime," it says lifetime, and then
02:45 16 behind it, it puts in parentheses endurance, that's
02:45 17 express. That's clear. That's what Vervain's in re
02:45 18 Personal Web case requires in order to treat different
02:45 19 claim terms as interchangeable.
02:45 20 But that's not what we see with the
02:45 21 "maximize" term. The word -- there's nothing clear or
02:45 22 explicit treating the word "maximize" as
02:45 23 interchangeable with anything in the specification.
02:45 24 That's because maximize isn't in the
02:45 25 specification at all. The first time it appears is

02:45 1 here in '300 patent, Claim 1, four patents into this
02:45 2 family and seven years after the initial application
02:45 3 was filed.
02:45 4 So there really is no guidance from the
02:46 5 spec saying that maximize should be treated identically
02:46 6 to the word "enhanced." It has to mean something more
02:46 7 than just a mere increase in lifetime.
02:46 8 Final point I'd like to make, Your Honor,
02:46 9 is that regardless of what understanding of maximize
02:46 10 you have, it's still indefinite. Whether you take
02:46 11 defendants' plain and ordinary meaning or plaintiff's
02:46 12 plain and ordinary meaning, it's still indefinite.
02:46 13 And that's because there's no guidance
02:46 14 under either of those definitions as to how to know
02:46 15 when the lifetime is maximized.
02:46 16 Defendants have cited the CA, Inc. case.
02:46 17 We think that's very instructive. That was one that
02:46 18 was not treated in the Western Digital or Micron cases.
02:46 19 And there, the Court held that "maximize" is a term of
02:46 20 degree. And so a person of skill in the art would need
02:47 21 objective -- would need objective guidance as to -- to
02:47 22 determine how much of an increase constitutes
02:47 23 maximizing.
02:47 24 "Maximizing" was the term at issue there.
02:47 25 Unlike any of the other cases that plaintiff cites

02:47 1 here.

02:47 2 The same reasoning in the CA case applies

02:47 3 here. What is the -- what is the boundary? What

02:47 4 increase in lifetime is enough to go from not maximized

02:47 5 to maximized?

02:47 6 Patents don't answer that question.

02:47 7 Plaintiffs haven't answered that question in their

02:47 8 briefs and so that renders the "maximize" term

02:47 9 indefinite.

02:47 10 And that's all I have unless you have any

02:47 11 questions or there's any response.

02:47 12 THE COURT: Court is going to maintain

02:47 13 its preliminary construction.

02:47 14 We'll move to the final claim term. I'll

02:47 15 hear argument on that. Which is Claim Term 14.

02:48 16 MR. CHIN: Thank you, Your Honor.

02:48 17 I think that defendants are going to rest

02:48 18 on the briefs for term 14.

02:48 19 THE COURT: Okay. The Court is going to

02:48 20 maintain its preliminary construction of plain and

02:48 21 ordinary meaning, not indefinite.

02:48 22 And to make clear with respect to Claim

02:48 23 Term 13, the Court finds it's not indefinite either.

02:48 24 Is there anything else? I'll start with

02:48 25 plaintiff. Is there anything else we need to take up?

02:48 1 MR. WHITEHURST: No, Your Honor.

02:48 2 THE COURT: And for either defendant, is

02:48 3 there anything we need take up?

02:48 4 MR. CARRANO: Not for Kingston, Your

02:48 5 Honor. Thank you.

02:48 6 MR. CHIN: Not for Phison, Your Honor.

02:48 7 THE COURT: Thank you to all the clients

02:48 8 who took the time and -- to show up and I hope to see

02:48 9 you guys in person in the near future. Take care.

02:48 10 (Hearing adjourned.)

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UNITED STATES DISTRICT COURT)
WESTERN DISTRICT OF TEXAS)

I, Kristie M. Davis, Official Court Reporter for the United States District Court, Western District of Texas, do certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

I certify that the transcript fees and format comply with those prescribed by the Court and Judicial Conference of the United States.

Certified to by me this 15th day of February 2025.

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