

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

NEC CORPORATION,

Plaintiff,

v.

PELOTON INTERACTIVE, INC.,

Defendant.

C.A. No. 22-987 (CJB)

JOINT CLAIM CONSTRUCTION BRIEF

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I. AGREED CONSTRUCTION

“code rate”(’101 Patent, claims 1, 2, 4, 11, 12, 14, 16, 21-23, 25, 26)
a rate representing the data amount (the data size, e.g., the number of bytes) of content data for reproducing content at constant speed (reproducing content at 1× speed) for a unit time (e.g., one second).

II. INTRODUCTION

a. NEC’s Opening Introduction

The NEC patents-in-suit, U.S. Patent Nos. 8,752,101 (“the ’101 Patent”), 8,909,809 (“the ’809 Patent”), and 9,769,427 (“the ’427 Patent”) (collectively the “Asserted Patents”), claim inventions that improve systems for delivering streaming multimedia content. These patents provide a number of advantages: the inventions of the ’101 Patent allow server devices to stream content to many different user devices at the best possible quality, to adapt to varying network conditions and the differing quality of the network infrastructure that services each of the devices, while minimizing any perceptible video quality impairments. The ’809 Patent provides techniques that smooth transitions between transmitted video bitrates, resulting in an improved viewer experience with less jarring transitions between different transmitted multimedia quality levels. The ’427 Patent provides techniques for streaming multimedia content selected by a user with additional content, or “sub content,” which can be selected based on the specific user or the multimedia content that is transmitted, while improving overall system performance.

Every term presented for construction here was initially proposed by defendant Peloton. No construction of these terms should be necessary, and the Court should give these terms their ordinary and customary meaning. In some instances, Peloton improperly incorporates limitations from the specification. In other instances, Peloton offers constructions that directly contradict positions Peloton has taken before the PTAB in its petitions for *inter partes* review (“IPR”). But in all instances, Peloton’s arguments are without support and should be rejected.

b. Peloton’s Answering Introduction

Five of the disputed terms are drafted in means-plus-function format, simply replacing “*means*” with “*unit*.” In all cases, the patents treat the words “unit” and “means” terms interchangeably, and treat each “unit” term as a black box. Because the claims do not connote to a person of ordinary skill (POSA) a sufficiently defined structure to perform the claimed function, such terms should be governed by §112, ¶6. Peloton’s proposals for other terms reflect the true scope of the inventions in NEC’s patents and would assist the lay jury at trial.

c. Peloton’s Sur-Reply Introduction

For all three asserted patents, NEC stretches the claims beyond the disclosures in the specification and concocts theories regarding a POSA’s knowledge in the relevant field. In each instance, NEC relies not on intrinsic support, but on conclusory, unsubstantiated statements from its experts. As the Federal Circuit has cautioned, “conclusory, *unsupported assertions* by experts as to the definition of a claim term are not useful to a court.” *See Aristocrat Techs. Australia Pty. Ltd. v. Int’l Game Tech.*, 709 F.3d 1348, 1361 (Fed. Cir. 2013).

III. DISPUTED CONSTRUCTIONS

A. The ’101 Patent

1. **“reproduction start time set as time at which the reception device starts reproduction of the content” (claims 1, 11, 16, 21, and 26) / “reproduction start time set as time to start reproduction of the content” (claim 22)**

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning	reproduction start time set as time that the reception device having transmitted a session participation request first starts reproduction of the content

a) NEC’s Opening Position

The language of the claim defines what the reproduction start time is for the content played back—consistent with the plain meaning, it is the time the user’s reception device starts playing

the content. Peloton seeks to rewrite the claim to add an entirely new limitation: “*having transmitted a session participation request first*,” which is found nowhere in the claims. Peloton’s proposed construction improperly (1) injects the concept of a “transmitted [] session participation request,” and (2) limits the claim to the time that the reception device “*first* starts reproduction of the content.”

Peloton’s proposal is a textbook case of improperly importing a limitation from the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (“we have repeatedly warned against confining the claims to those embodiments.”). While the specification discloses an exemplary embodiment including a “session participation request,” claims 1, 11, 16, 21, 22, and 26 do not include that limitation. *See id.*; ’101 Patent (Ex. 1) at 5:7-10 (“Below, *exemplary embodiments* of a distribution system, a distribution method, a transmission device, a program and a reception device according to the present invention will be described with reference to FIGS. 1 to 16.”). The Federal Circuit has referred to the importing of such limitations as a “a ‘cardinal sin’ of claim construction,” and Peloton has identified no evidence supporting an exception to the rule here. *See, e.g., Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1324 (Fed. Cir. 2002).

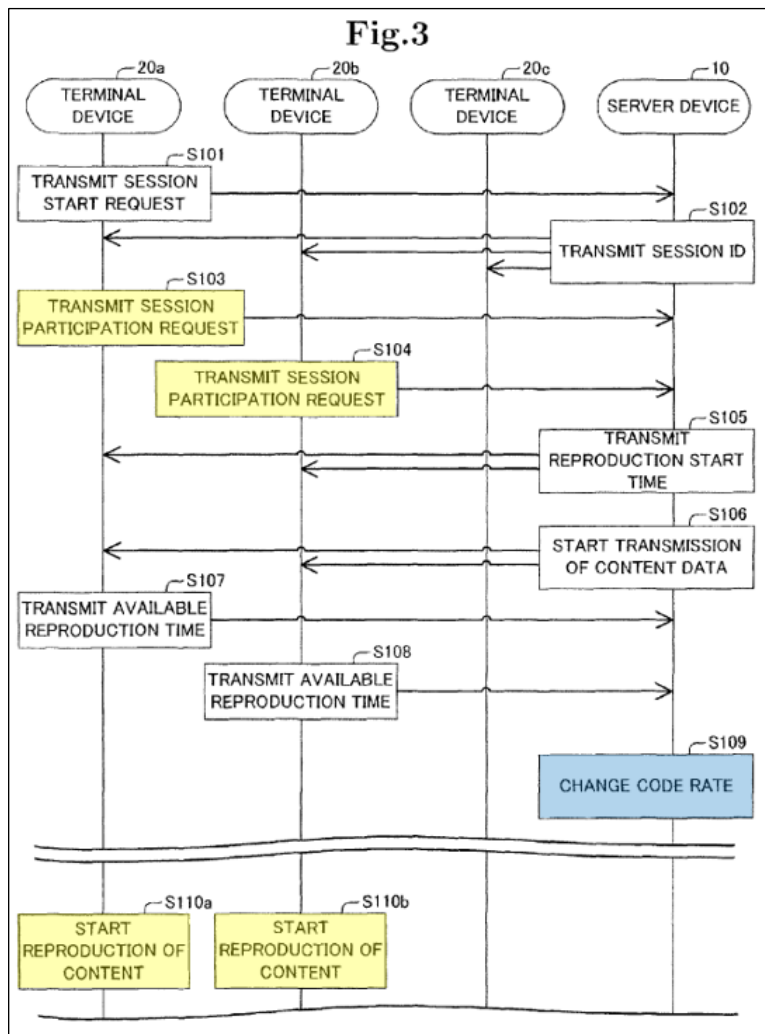
Peloton compounds its error by also injecting a temporal limitation of “first” into the claim. This limitation does not find support within the specification, let alone the claims. At the heart of this dispute—and the real implication of Peloton’s construction—is Peloton’s position that the claims are restricted to implementations where there can only be *one start time* during a session of media streaming (in other words, that the claims are limited to playing only a single and complete program or show, which is the dispute Peloton also raises in connection with the next term, “content”). There is no justification for limiting the claims in this way.

b) Peloton's Answering Position

The term “reproduction start time” plainly refers to a set point in time at which content starts to play on a terminal device. Just as a movie in a theater or a show on TV has one start time, likewise the content (e.g., a TV show) in the '101 Patent has one start time. The purpose of the invention confirms that the “reproduction start time” refers to a point in time when content starts to play. Ex. 12, Decl. of Dr. Almeroth (“Almeroth”), ¶¶54–55, 72–74. The patent states that “an ***object of the present invention*** is to provide a distribution system” “in which a plurality of reception devices ***synchronously reproduce content*** but also . . . in which one reception device starts ***reproduction of the content at set reproduction time.***” Ex. 1, 2:13–25. The Abstract further confirms that “[t]he reception device ***starts*** reproduction of the content at ***the reproduction start point.***” Similarly, claim 1 requires the terminal device “to ***start*** reproduction of the content at the ***set reproduction start time.***” *Id.*, 3:59–60. Thus, the term refers to the time when content first starts to play and, not, as NEC argues, a serial set of points of time, when various portions of the content are eventually played. Ex. 12, Almeroth, ¶¶70–88; Ex. 13 (NEC '101 Claim Chart).

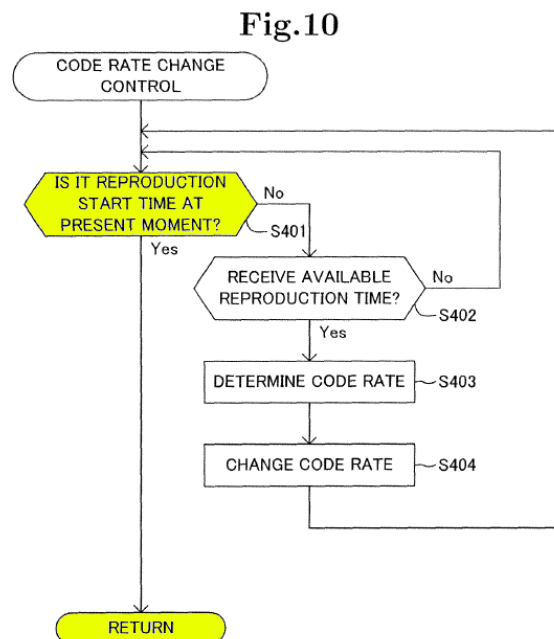
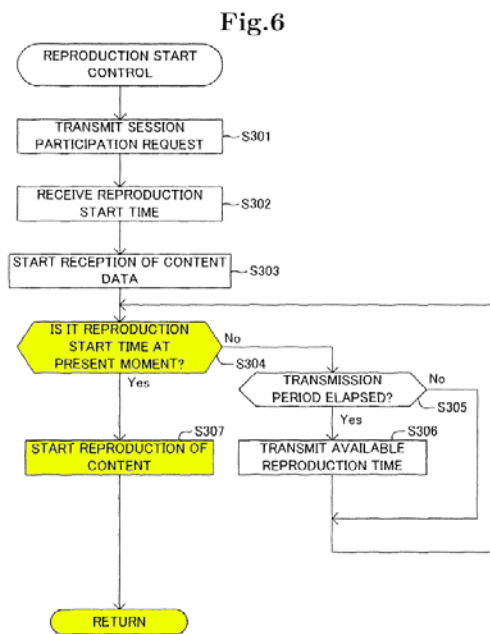
Peloton's construction mirrors the scope of the invention. Mirroring the invention of the '101 Patent, Figure 3 illustrates how multiple terminal devices start reproduction of content

synchronously at a single point in time, i.e., at a **set reproduction start time**. *Id.*, ¶¶58–59, 73–77. When a user wants to play content (e.g., a movie or a TV show), terminal device 20a transmits a session start request (step s101) to server 10. *Ex. 1*, '101 Patent, 6:12–20. Eventually, interested terminals transmit **a session participation request** (steps s103 and s104) to server 10. *Id.*, 6:40–47. In response, server 10 ascertains a “**reproduction start time**” (step s106) for all terminal devices and also starts to transmit content data (i.e.,



portions of the movie or the TV show). *Id.*, 7:14–19. The server transmits the content as a series of segments (or content data). *Id.*, 8:46–52. The terminal stores the incoming segments, which will later be played sequentially at the reproduction start time. *Id.*, 9:46–59. The terminal devices transmit an available reproduction time (i.e., the playback time of the content data stored in each terminal device) to the server (steps s107 and s108). *Id.*, 9:60–10:3. The server updates the code rate of the next content data (i.e., segments) to be transmitted to each terminal device (step s109) to ensure each terminal has sufficient content in storage when reproduction starts at the set time. *Id.*, 10:13–18. Lowering the code rate of content data increases duration of data in the buffer at faster rate but reduces video quality, whereas increasing the code rate increases duration of data at

a slower rate but increases quality. Ex. 12, Almeroth, ¶¶55, 81. At that predetermined time, both terminals start to play content at “Start Reproduction of Content” step (steps s110a and s110b). *Id.*, 9:56–59. Figure 3 depicts only one start time and stops there because the “reproduction start time” has arrived. Ex. 12, Almeroth, ¶¶73–77. It does not depict a series of “start times” because the “reproduction start time” is the time at which the first segment of content is reproduced and not a series of time instances when different segments are reproduced. This understanding is consistent with, all other figures depicting the operation of claimed invention, which likewise show the reproduction start time as one point in time. For instance, Figure 6 shows the program executed by the terminals and Figure 10 shows the program executed by the server to change the code rate. In both flow charts (below), program execution ends after the “Start Reproduction of Content” step when the devices execute the “return” step, i.e., exit. *Id.* That defines the outer boundary of the ’101 invention.



Because the purpose of the invention is to enable start reproduction of the content at a set time, the specification does not enable or describe what occurs after that purpose has been achieved.

More broadly, the process of reproducing content begins when a user selects content on a terminal. The terminal requests the selected content from the server and the server eventually sets a reproduction start time for all terminals desiring to reproduce the selected content. The specification defines the **reproduction start time** as the “time that a terminal device having transmitted the session participation request starts reproduction of content.” Ex. 1, ’101 Patent, 7:17–19; *see also id.*, 8:53–58, 9:18–21, Figs. 3 and 13. The “reproduction start time” and the content are provided only to terminals that transmitted **a session participation request**. Ex. 12, Almeroth, ¶¶73, 76–77. Thus, Peloton’s construction clarifies that the term refers not any start time but a specific time that (a) occurs after a terminal submits the request and (b) is set by the server.

Peloton’s construction requires having one start time associated with content after the session has started, reflecting the proper scope of invention conveyed in the specification. *See UltimatePointer, LLC v. Nintendo Co., Ltd.*, 816 F.3d 816, 822 (Fed. Cir. 2016) (“The specification is always highly relevant to the claim construction analysis. . . [I]t is the single best guide to the meaning of a disputed term.”) (cit. omitted).

NEC’s interpretation is incorrect because it is not supported by the specification. NEC’s untenable position that a content can have multiple start times is based on its premise that the system continues to update the code rate even **after** reproduction of content has started. NEC’s premise is incorrect. Ex. 12, Almeroth, ¶¶78–88. *First*, the specification does not address how the code rate is modified **after** the reproduction of content has started. *Id.*, ¶¶78–80. Figures 3, 6 and 10 show that the code rate is updated only **before** the reproduction begins and **not** after. *Second*, Equation (5), the sole equation in the specification that explains how the new code rate (r_{n+1}) is determined, teaches how to update the rate **before** reproduction starts and not after reproduction

begins. As Dr. Almeroth explains, Equation (5) can reliably ascertain the new code rate (r_{n+1}) **before** reproduction starts but yields nonsensical results **after** reproduction starts. *Id.*, ¶¶85–87. Finally, NEC’s interpretation would devolve the claims into a situation that the ’101 Patent expressly attempts to avoid. The claimed distribution system updates the code rate based on two variables (i.e., remaining time and available reproduction time) that are distinct and independent **before** reproduction starts. As Dr. Almeroth explains, **after** reproduction starts, the two variables collapse into one because both measure the “available reproduction time,” i.e., amount of content in the buffer. *Id.*, ¶¶81–84. The specification expressly warns that determining the code rate “based on **only the available reproduction time**” will lead to code rate being set “extremely small immediately after the reception device starts reception of the content data” or code rate being set “extremely high immediately before the reproduction start time.” Ex. 1, ’101 Patent, 2:4–13. The specification defines “the present invention” as one that avoids such extremities. *Id.*, 2:21–25, 4:15–18. Because NEC’s premise is faulty, its position cannot be correct. *See, e.g., Carrum Technologies, LLC v. Unified Patents*, 2021 WL 3574209 at *5–6 (Fed. Cir. 2021) (rejecting broader alleged “plain meaning” construction as “untethered to the specification.”); *Decisioning.com, Inc. v. Federated Dept. Stores, Inc.*, 527 F.3d 1300, 1310–11 (Fed. Cir. 2008) (construing “remote interface” to exclude consumer-owned personal computers, as the written description did not support such inclusion). Peloton’s proposal eliminates any ambiguity that NEC attempts to inject about what occurs **after** reproduction has started.

c) NEC’s Reply

“[A] rule of claim construction is that ‘[t]he words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history.’ There are two exceptions to this rule:

‘1) when a patentee sets out a definition and acts as his own lexicographer, or 2) when the patentee disavows the full scope of a claim term either in the specification or during prosecution.’ The standards for finding lexicography and disavowal are ‘exacting.’” *Oasis Tooling, Inc. v. Siemens Indus. Software, Inc.*, No. 1:22-cv-00151-CJB, 2023 WL 8005818, at *8, n.16 (D. Del., Nov. 17, 2023) (citations omitted). Peloton does not (and cannot) argue lexicography or disavowal. There is no reason to depart from the plain and ordinary meaning.

The plain language of the claims explains what “reproduction start time” means—namely, the “time at which the reception device starts reproduction of content.” Ex. 1, ‘101 Patent, Cl. 1. Peloton’s proposed construction injects *two* additional limitations, as illustrated below:

“reproduction start time set as time ~~at which~~ that the reception device [i] having transmitted a session participation request [ii] first starts reproduction of the content”

Peloton’s only basis for importing these limitations is that the specification describes an exemplary embodiment with these features. *Supra* at 4-7.

With respect to the **first** imported limitation—requiring the reception device to “have[] transmitted a session participation request”—Peloton ignores portions of the specification that explain that the exemplary embodiment Peloton relies on is only that—exemplary. Ex. 1, ‘101 Patent, 5:7-11; 23:49-54; 23:61-63. The patentee could have chosen to limit the scope of the claims to require a “session participation request,” but did not. *Kara Tech. Inc. v. Stamps.com Inc.*, 582 F.3d 1341, 1347 (Fed. Cir. 2009). Even if the “only detailed embodiments” disclosed a session participation request, “[t]his is not enough ... to limit the patentee’s clear, broader claims.”¹ *Id.* at 1347-48. Here, Peloton’s construction also **excludes** a “second exemplary embodiment,” which

¹ Peloton’s reliance on *UltimatePointer* here is inapposite. There, the court found “repeated extolling” of a feature and “repeated criticisms” of alternative features in the specification can be informative to the scope of the claims. 816 F.3d at 822. That is not the case here.

does not require or otherwise involve transmission of a “session participation request.” See Ex. 1, ‘101 Patent, 5:1-3, 18:58-23:67, Fig. 16; Ex. 15, Schonfeld Dec. (“Schonfeld”), ¶32; see Ex. 16, Almeroth Tr., 87:3-88:3. Constructions that exclude a preferred embodiment are “rarely, if ever, correct.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1583 (Fed. Cir. 1996). A POSA would have understood that a “session transmission request” is not necessary in order to stream content as claimed. Ex. 15, Schonfeld, ¶32; Ex. 16, Almeroth Tr. at 88:14-89:1. Indeed, in Peloton’s IPR Petition, no showing was made as to how the prior art includes a “session participation request,” illustrating that at least Peloton’s IPR expert understood that this is not a requirement of the claims. D.I. 86, 45-52; Ex. 16, Almeroth Tr., 91:6-93:23.

As to the **second** imported limitation, nothing in the claims or specification limits the invention to only working when “first” starting to reproduce content. Ex. 15, Schonfeld, ¶33. A POSA would have understood that it is common for streaming media to be divided into segments, and that each segment may have its own “start time,” e.g., to ensure continuous playback. *Id.*; Ex. 16, Almeroth Tr., 65:15-66:4, 67:5-11, 68:4-18, 74:5-75:6. A POSA would further have understood that breaking media into multiple segments, each with a “start time” would be beneficial with synchronization over time and thereby impact the code rate determination. Ex. 15, Schonfeld, ¶¶34-35; see also Ex. 16, Almeroth Tr., 109:4-17. Further, a streamed video may have multiple “start times” due to network congestion—e.g., network congestion may cause a buffering event that stops playback of the video, requiring at least one other start time. *Id.* Other portions of the specification also support NEC’s position, e.g., explaining that the code rate for the content is determined not just once, but multiple times as is it being transmitted. Ex. 1, ‘101 Patent, 15:35-40; 20:4-6; 21:54-56; 22:33-35. A POSA would have understood there is no reason why this process cannot continue after reproduction has started. Ex. 15, Schonfeld, ¶36.

Peloton attempts to support its read with the “Equation (5)” embodiment in the specification (Resp. Br. at 5), but the claims are not limited to Equation 5. Ex. 1, ‘101 Patent, 10:44-59. And, Equation (5) applies equally after reproduction has started and the two variables do not “collapse into one.” Ex. 15, Schonfeld, ¶¶37-42. Peloton’s expert’s, Dr. Almeroth, relies on assumptions that are inconsistent with real-world media streaming systems, such as the assumption that content is played back without interruptions, and that all previously transmitted segments have already been received by the receiving device. Ex. 15, Schonfeld, ¶42. A POSA would have understood that in many real-world scenarios, the “available time” would not equal to the “remaining time” after playback has started. Thus, a POSA would have understood the code rate should continue to change after reproduction start based on the same two variables—remaining time and available reproduction time, which are not the same—as network conditions change. *Id.* Peloton’s attempt to limit the claims should be rejected.

d) Peloton’s Sur-Reply

The crux of the dispute is whether the reproduction start time denotes the start of the reproduction of content or, as NEC argues, separate start times for each segment of content. To narrow the issues, Peloton modifies its proposal to: “reproduction start time set as time that the reception device ***first*** starts reproduction of the content.” This construction reflects the plain meaning of the claims. When a user watches a movie, the reproduction start time is the first time *the movie* starts playing on the user’s device. Schonfeld recognizes this, repeatedly referencing “after reproduction has started” to describe to the first instance of content playback. Ex. 15, Schonfeld, ¶36 (“[T]he invention was not intended to be limited to only the ‘first reproduction start time,’ as “there is no reason why this process cannot continue ***after reproduction has started***”).

The specification supports Peloton’s construction. *Supra*, 4-7. As Schonfeld admits, the specification makes no mention of *separate* reproduction start times for the subsequent segments after the device first starts reproduction of content. Ex. 21, Schonfeld Tr., 26:11-16 (“Well, I think it is silent on what’s going on with the subsequent segments.”); 26:22-27:6 (“I agree with you; I don’t see a mention of it.”). Lacking any disclosure for multiple start times, NEC relies on nothing more than Schonfeld’s speculation to argue that synchronizing multiple start times “would be beneficial,” *Supra*, 10—though he acknowledged that there was no discussion of such benefits in the patent. Ex. 21, Schonfeld Tr., 27:7-28:22; Ex.24, Almeroth-2, ¶4. Schonfeld admits that NEC’s construction allows some content to be downloaded even before the reproduction start time is set, *id.*, 41:6-21, meaning the buffer “should not be empty,” *id.*, 49:22-51:10, but his testimony contradicts the description in the specification “applicable to the invention” that “the available reproduction time gradually **increases from 0.**” *Id.*, 51:11-52:17; Ex. 1, ’101 patent, 2:4-7.

Demonstrating that NEC’s arguments lack specification support, Schonfeld concedes that NEC’s construction would permit a scenario wherein “the resulting code rate would be negative” Ex. 15, Schonfeld, ¶41, which he acknowledged does not exist. Ex. 21, Schonfeld Tr. 79:22-80:5, 92:25-93:19. Attempting to reconcile this flaw, Schonfeld opines that “the code rate determining unit will select the content data encoded the closest code rate” such as “no content transmission (*i.e.*, 0 Mb/s).” Ex. 15, Schonfeld, ¶41. But the claims recite “one content **coded** with any one code rate,” *see, e.g.*, claim 1, and the purported “no content transmission” is not a content that is “coded.” Further, 0 Mb/s is greater than a negative code rate, and this contradicts the specification, which describes transmitting “content data having a code rate that is **equal to or less**” than the determined code rate. Ex. 1, ’101 patent, 11:4-10; Ex. 24, Almeroth-2, ¶¶5-22.

2. “content” (’101 Patent claims 1, 5, 11, 15, 16, 21, 22, 26; ’809 Patent Claims 1, 8, 14, 18, 22, 26, 30)

NEC's Proposed Construction	Peloton's Proposed Construction
Plain and Ordinary Meaning <i>Alternatively:</i> video and/or audio	video and/or audio

a) NEC's Opening Position

The term “content” should be given its plain and ordinary meaning. Based on meet and confers, NEC understands Peloton’s position to be, despite the text of its proposal, that “content” requires an *entire* “video and/or audio *program*.”² Plain and ordinary meaning of this simple term should govern, and there is no reason that construction is required, especially requiring Peloton’s interpretation that the content must be an entire program. The specification nowhere limits content to an entire session, program, or show. It instead broadly identifies that content data representing content may be transmitted during a session. Ex. 1, ’101 Patent at 1:23-25 (“the transmission device transmits content data representing content (video, audio, etc.) to each of the reception devices.”); 7:1-8 (“Each of the content data is data representing one of a plurality of contents (e.g., information representing video and/or audio).”); 12:49-64.

² Peloton ignored the Court’s order limiting briefing to only ten terms, and informed counsel for NEC that it intended to raise this eleventh term with the Court, premised on Peloton’s position that the parties have agreed on the construction. The parties clearly have not. During the meet and confer process, Peloton argued that the term “content” requires an entire video and/or audio session, program, or show. Although Peloton subsequently changed the words of its proposed construction to match NEC’s proposed *alternative* construction (i.e., video and/or audio), when pressed, Peloton declined to relinquish its position that “content” requires the *entire* video and/or audio show or *program*. See Ex. 11 at 1, 3, 5-7, (11/1/23 e-mail with Peloton’s counsel). There is therefore a clear dispute as to the meaning of this term, and, despite Peloton’s position, obviously no agreement as to what it means. *O2 Micro Intern. Ltd. v. Beyond Innovation Tech. Co.*, 521 F. 3d 1351, 1361 (Fed. Cir. 2008). Ultimately, Peloton has otherwise presented *all terms to be construed*, and despite the Court’s order limiting to ten disputed terms, and despite that NEC contends there is now a very clear dispute about the meaning of “content,” Peloton has refused to drop any other claim term. Accordingly, NEC briefs this term only to the extent Peloton maintains its position regarding the meaning; if Peloton concedes plain meaning, and that the term does not require an “entire” “show or program,” then NEC would agree this term need not be presented to the Court for construction.

Notably, Peloton filed an IPR petition at the PTAB against the ‘101 Patent, in which *Peloton* expressly contended that this term should be given its plain and ordinary meaning. D.I. 86 at 29 (IPR petition against ‘101 Patent). There, Peloton argued that the Chou prior art reference rendered the claims obvious—without any requirement or description in Chou that its content applied only to an entire program—but merely because Chou identified a time at which **a given frame of video** is to be played. *See id.* at 20 (“Chou teaches the ‘reproduction start time,’ shown by the playback deadline. Chou states the ‘playback deadline’ is **the time at which frame n is scheduled to be played.**”) (emphasis added). Peloton thus told the PTAB that “content” can be any piece of video and/or audio, including the “content” represented by a given “frame n.” *Id.* Peloton should not be permitted to take a directly opposing position before this Court.

b) Peloton’s Answering Position

The term “content” appears in both the ‘101 patent and the ‘809 patent. In each patent, the term should be construed as “video and/or audio,” meaning the term refers to the artistic work as a whole that has been transmitted from the server. The specification expressly equates “content” with “video, audio, etc.” Ex. 1, 101 Patent, 1:23–25. NEC proposed that the term should be given its plain and ordinary meaning, but when pressed for what the plain and ordinary meaning is, NEC proposed the same construction as Peloton, i.e., “video and/or audio.”³ NEC now appears to argue,

³ NEC blames Peloton for NEC’s choice to brief eleven terms in its opening brief. *Supra* 3, n.2. In fact, NEC and Peloton agreed on ten disputed terms to brief on October 16, 2023, *id.*, Ex. 11 at 8–10, and Peloton further notified NEC that Peloton would inform the Court that there was an agreement between the parties regarding the construction of the terms “content” and “code rate” because Peloton’s construction was identical to NEC’s construction except NEC also contended that the terms should be given their plain and ordinary meanings. *Id.* at 7. NEC agreed to place “code rate” into an agreed-upon-construction section but refused to do so for “content.” *Id.* at 6–7. Later, NEC informed Peloton on October 30, 2023, that NEC would add “content” as an eleventh term unless Peloton dropped one of the ten terms the parties had already agreed to brief. *Id.* at 5. As a compromise, Peloton offered not to discuss “content” in its brief as an agreed-upon term, but NEC proceeded with briefing eleven terms anyway. *Id.* at 1.

however, that “content” means each segment of a video or audio as encoded for transmission, and not the entire video or audio. NEC conflates “content data” and “content.”

As with reproduction start time, the ’101 Patent support Peloton’s view. Claims differentiate between “content” and “content data.” Ex. 12, Almeroth, ¶¶90–92. They refer to “content data” as portions of video and/or audio but mention that content (and not content data) is reproduced. *See, e.g.*, Ex. 1, ’101 Patent, cl. 1 and ’809 Patent, cl. 1. Different terms are ascribed different meanings, as is the case here. Figure 3 (§ III.A.1.b, *supra*) also differentiates between the two terms. It depicts **content data** being downloaded from the server to the terminals, and the figure refers to “start reproduction of **content**,” not content data. Likewise, Figures 6 and 13 (*id.*) make the same distinction. The specification also supports that content is the video or audio:

The content data storage part 44 of the server device 10 stores (accumulates) a plurality of content data in advance. Each of the content data is data representing one of a **plurality of contents (e.g., information representing video and/or audio)**. The content data storage part 44 stores, as the content data representing the respective contents, a plurality of content data in each of which the content is coded with a code rate varying with the content.

Ex. 1, ’101 Patent, 7:1–8. The agreed definition of “code rate” also differentiates the two terms:

[a] rate represent[ing] the data amount (the data size, e.g., the number of bytes) of **content data for reproducing content** at constant speed (reproducing content at 1x speed) for a unit time (e.g., one second).

Id., 7:8–11. Thus, “content” refers to the entire video or audio and “content data” refers to portions of content. As discussed in Section III.A.1.b above, NEC’s view incorrectly assumes that the ’101 Patent continues to operate after content first starts playing. Ex. 12, Almeroth, ¶93. Therefore, NEC’s attempt to conflate “content data” with “content” is wrong.

c) NEC’s Reply

The sleight of hand in Peloton’s proposed construction for “content” is apparent in the first three lines of its argument: “‘video and/or audio,’ meaning the term refers to the artistic work as

a whole that has been transmitted from the server.” *Supra* at 14 (emphasis added); *id.* at 15 (“‘content’ refers to the **entire** video or audio.”).⁴ Nothing in the claims or specifications support limiting “content” to an “artistic work as a whole.”⁵

Peloton argues that NEC conflates “content data” and “content.” Not so. It is true that “content data” is data that represents content. Ex. 1, ’101 Patent, 7:1-8. But that does not limit the meaning of the term “content.” While “content data” is data that represents content, not all “content data” is data that represents the **same** “content.” Ex. 15, Schonfeld, ¶45.

Peloton’s position also contradicts the specification of the ’101 Patent.⁶ For example, the specification provides an example where “content” includes only a portion of a program. Ex. 1, ’101 Patent, 16:65-18:27; Fig. 13, Fig. 15. The specification envisions a scenario where the user wants “terminal device 20c to reproduce **the content** synchronously” with terminals 20a and 20b. *Id.* 16:65-17:2. Since terminal 20c’s reproduction start time is later in time, “a position behind a head position [is determined] by a difference between the first reproduction start time and the second reproduction start time, as a transmission start point.” *Id.* 17:63-18:3, Fig. 15. Accordingly, “it is possible to cause the plurality of terminal devices 20a to 20c to reproduce the **same content**

⁴ NEC never agreed that “content” requires the “entire video or audio.” Ex. 11. Peloton’s allegation that the parties agreed on ten disputed terms to brief, to the exclusion of “content,” Response Br., fn.1, is wrong. *Id.* Peloton’s brief highlights that the parties have a dispute. Further, this was the only term that NEC insisted the parties brief—rightly so, given the now-obvious dispute.

⁵ Peloton’s expert attempted to walk back his position on this term, but his interpretation is still problematic. Ex. 16, Almeroth Tr., 106:6-11 (“I don’t know that the entirety means that it has to be, say, the full[] duration of the movie from the opening scene through the end of the credits. It’s the entirety of what the object is that’s being delivered.”).

⁶ Peloton wholly ignores the ’809 Patent specification (*see Supra* at 14-15, Ex. 16, Almeroth, ¶¶89-92, Almeroth Tr., 111:3-17), which also unequivocally uses the term “content” to refer to only portions of a video or audio program. *See, e.g.*, Ex. 2, ’809 Patent, 22:32-36 (“**content** can be reproduced based on a **portion** of the data stored...”); 24:51-54; 25:29-34.

synchronously with each other.” *Id.* 18:23-27. In this example, a POSA would have understood that, since terminal 20c only receives a portion of the content that terminals 20a-b receive, “content” cannot mean the *entire* artistic work—whether video or audio. Ex. 15, Schonfeld, ¶46; Ex. 16, Almeroth Tr., 118:6-15; *compare* D.I. 86 at 45-52 with Ex. 16, Almeroth Tr., 77:3-10, 94:15-95:21.

d) Peloton’s Sur-Reply

The parties agree that “content” means “video and/or audio,” but dispute whether a segment of a video and/or audio is also “content.” Under Peloton’s construction, a movie would constitute a content, and starting to play content would refer to first start for playing the movie. But under NEC’s construction, *thousands of segments* within the movie each constitute separate content, in turn resulting in thousands of reproduction start times. *See Reply*. Indeed, Schonfeld uses “a portion of” video or audio to refer to the content under NEC’s position, distinguishing it from the video or audio itself.⁷ Ex. 21, Schonfeld Tr. 12:21-13:2, 14:2-17, 39:15-41:5.

NEC suggests that an entire video and/or audio must be reproduced from the start to finish under Peloton’s construction. To the contrary, Peloton has stated that it is the artistic work as a whole that is “transmitted from the server,” *supra*, 14, regardless of whether the video and/or audio is reproduced from the start to finish. Indeed, Figure 15 shows that Terminals R01 and R02 start playing a content from the beginning, and Terminal R03 starts playing the same content later, but the figure denotes the same Content ID (“C01”) for all three. Ex. 24, Almeroth-2, ¶¶29-33. NEC’s construction that each segment is a different content is incorrect.

3. “content transmitting unit” (claims 1, 16, and 21)

⁷ Another problem with NEC’s construction is that it is incompatible with the claim language. The “available reproduction time” as defined by the claims does not make sense because the buffer in the reception device would contain content data for segments that would be played *before* the reproduction start time. *See* Ex. 24, Almeroth-2, ¶¶26-28.

NEC's Proposed Construction	Peloton's Proposed Construction
Plain and Ordinary Meaning not subject to 35 U.S.C. § 112, ¶ 6.	Means-plus-function term governed by 35 U.S.C. § 112, ¶ 6

a) NEC's Opening Position

As part of this briefing, Peloton seeks to apply 35 U.S.C. § 112, ¶ 6⁸ to construe several terms as means-plus-function—even though not one recites the word “means.”⁹ In each instance, Peloton's arguments require divorcing the word “unit” from the surrounding claim language, and its positions are wholly at odds with the positions it advanced in its pending IPR petitions. Peloton's positions on each should be rejected.

As with the other such terms, the “content transmitting unit” does not recite the term “means.” Accordingly, there is a presumption that this term should not be construed as means-plus-function. *See, e.g., Diebold Nixdorf, Inc. v. Int'l Trade Comm'n*, 899 F.3d 1291, 1298 (Fed. Cir. 2018). Peloton cannot overcome that presumption because when the surrounding words of the claims are properly considered, the language connotes sufficient structural limitations for a POSA. *See Phillips*, 415 F.3d at 1314 (citing *ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) (“the context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms.”)).

The words “content transmitting” alone confirm that the term is not subject to means-plus-function interpretation. These modifying words provide structural significance to the term “unit.”

⁸ The Asserted Patents are pre-AIA patents, and thus herein NEC refers to 35 U.S.C. § 112, ¶ 6 (pre-AIA) (corresponding to AIA 35 U.S.C. ¶ 112(f)) as the applicable statutory provision.

⁹ Other claims of the Asserted Patents, not at issue in this case, specifically use “means for” language and expressly invoke § 112, ¶ 6; that the inventors of the Asserted Patents knew how to use that “means” language, and used it when they wanted to, evinces a clear intent that these other claims, asserted in this case, would be of different scope, and would not be so limited. *See, e.g., Ex. 1, '101 Patent*, Claim 27 (reciting a “a content transmitting **means for** transmitting content data...”).

See Williamson v. Citrix Online, LLC, 792 F.3d 1339, 1351 (Fed. Cir. 2015) (“presence of modifiers” can change the meaning of an alleged nonce term). Indeed, the word “transmitting” alone provides structure, especially when considered in the context of the claim having, for example, “a transmission device” that includes the content transmitting unit. *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1366 (Fed. Cir. 2022) (“structure can be recited in various ways, including through the use of a claim term with a structural definition that is either provided in the specification or generally known in the art, or a description of the claim limitation’s operation and how the function is achieved in the context of the invention.”) (internal citations and quotation marks omitted).

This Court and others have found the term “transmitting” (including its variations) to connote sufficient structure, even when used in conjunction with an alleged nonce term. *Evolved Wireless, LLC v. Apple, Inc.*, No. 15-542-SLR, 2016 WL 6693072, at *2 (D. Del. Nov. 14, 2016) (finding § 112(6) does not apply to “a transmitting unit” or to “a transmission module”); *see also Panoptis Patent Management, LLC v. Blackberry Ltd.*, No. 2:16-62, 2017 WL 497571, at *3-8 (E.D. Tex. Feb. 7, 2017) (finding “determination unit,” “reception unit,” and “transmission unit” not governed by § 112, ¶ 6 and construing to have plain meaning). The word “content” in “content transmitting unit” further connotes structure by further identifying what is transmitted by the unit that is part of the claimed “transmission device.” Accordingly, the surrounding words of the claims themselves provide sufficiently definite structure. *Dyfan*, 28 F.4th at 1365. The sufficiently definite *claimed* structure is also consistent with the specification’s exemplary embodiments shown in Figures 1, 2, 13, and 16, which confirm the content transmitting unit as a structural element within the distribution system that effectuates communication between a server and client.

Moreover, even assuming *arguendo* that “content transmission” alone were not enough to avoid application of § 112, ¶ 6 to this non-means language, the rest of the claim language provides additional detail that renders § 112, ¶ 6 inapplicable. For example, the surrounding words further clarify that it is “the transmission device that is equipped” with the “content transmitting unit” and that it is meant for “transmitting content data, which is one content coded with any one code rate of a plurality of code rates different from each other, to the reception device.” *E.g.* Ex. 1, ’101 Patent at Cl. 1; see *Triplay, Inc. v. Whatsapp, Inc.*, No. 13-1703-LPS-CJB, 2016 WL 3574012, at *3 (D. Del. June 30, 2016), *report and recommendation adopted*, 2016 WL 6778215 (D. Del. Nov. 15, 2016) (“[T]he context in which a term is used in a claim may be ‘highly instructive.’”). These surrounding words provide context that confirms structure via the description of the term’s connections to the other elements of the distribution system, including how the content transmission is performed. *See id.* at *7 (“A claim term relating to such an invention may also have sufficient structure where there is a description of the term’s operation, such as its input, output, or connections.”) (internal citations and quotation marks omitted). Like the “access block” in *TriPlay* that was found to have sufficiently definite structure because it required “an operable connection” between the server and the user’s gateway, the “content transmitting unit” recites its operable connection between the “transmission device” and the “reception device,” and therefore also has sufficiently definite structure. *See id.* at n.8.

Peloton’s IPR petition for the ’101 Patent is instructive. In its petition, Peloton asserted that no construction is necessary for “content transmission unit,” did not advocate for application of § 112, ¶ 6, and did not even attempt to identify any structure or function at all, much less apply that construction to the asserted prior art. D.I. 86 at 29, 38-42; 37 C.F.R. § 42.104(b)(3) (requiring Petition to identify structure corresponding to each function where Petitioner contends a term is a

means-plus-function term). Peloton and its IPR expert had no problem understanding the term's plain and ordinary meaning as a structure, without limiting it to structure disclosed in the specification, when they applied this claim language to the prior art. D.I. 86 at 38-42, 53-55. The Court should reject Peloton's attempts at § 112, ¶ 6 treatment.

b) Peloton's Answering Position

The Federal Circuit “clarified in *Williamson* that the presumption against means-plus-function claiming is not ‘strong’ and that a challenger need not show that the limitation is ‘essentially devoid of anything that can be construed as structure.’” *Egenera, Inc. v. Cisco Sys., Inc.*, 972 F.3d 1367, 1373 (Fed. Cir. 2020) (citing *Williamson*, 792 F.3d at 1349) (cleaned up). “Rather, a challenger need only show that the structure is not ‘sufficient.’” *Egenera*, 972 F.3d at 1373. Here the presumption is rebutted: the term does not connote sufficient structure for performing the recited functions; the language surrounding “unit” is purely functional and the term is otherwise written in traditional means-plus-function format; the specification treats the term as a “black box” without imparting a well-known structural definition to the term; and the patent uses the words *unit* and *means* interchangeably when describing identical functions, thereby confirming that means-plus-function applies.

“Content transmitting unit” does not connote sufficient structure here. The presumption against means-plus-function claiming is rebutted if the claim term “recites ‘function without reciting sufficient structure for performing that function.’” *Williamson*, 729 F.3d at 1349. That is the case here. The claims ascribe two functions to the “content transmitting unit”: (1) **“transmitting content data . . . to the reception device,”** and (2), **“chang[ing] the code rate** of the [content] data.” See Ex. 1, '101 Patent, cls. 1, 16, 21. As Dr. Almeroth explains, there are no commonly understood structures in the art for performing the claimed functions and the term

connotes only function to a POSA. Ex. 12, Almeroth, ¶¶94–95. While transmitting content may connote structure in some contexts, that is **only one** of the ascribed functions. A POSA would not contemplate a “content transmitting unit” to perform the function of “chang[ing] the code rate.” *Id.*, ¶95. “The question is not whether a claim term recites *any* structure but whether it recites *sufficient* structure.” *Egenera*, 972 F.3d at 1374. Thus, even if “content transmitting unit” connotes *some* structure, it does not connote *sufficient* structure for performing both of the claimed functions. See *XR Commc’ns LLC v. ARRIS Solutions Inc.*, Nos. 2022-1125, 2022-1141, 2023 WL 3529830, at *2–3 (Fed. Cir. May 18, 2023) (upholding that §112, ¶6 applied, because a POSA would not understand “search receiver logic” as structure for “updating said routing information”—the second of two recited functions).

The term is otherwise written in traditional § 112, ¶6 format. “Unit” has long been recognized as a “nonce” term. See *WSOU Inv., LLC v. Google, LLC*, Nos. 2022-1066, 2022-1067, 2023 WL 6210607, at *4 (Fed. Cir. Sept. 25, 2023). Apart from lacking the words *means*, the term “content transmitting unit” is otherwise “drafted in the same format as a traditional means-plus-function limitation.” *Williamson*, 792 F.3d at 1350. Further, the claim language that follows “unit” simply lists the functions to be performed (“transmitting content data . . .” and “chang[ing] the code rate . . .”), Ex. 1, ’101 Patent, cls. 1, 22, 26, and fails to convey anything regarding the structure required to perform those two functions. Ex. 12, Almeroth, ¶¶95–96.

The patent uses “unit” and “means” interchangeably. Importantly, the ’101 Patent uses the *unit* terms and *means* terms interchangeably. Specifically, the specification recites—thirteen times—“content transmitting means” for performing the same functions ascribed to the claimed “content transmitting unit.” Ex. 12, Almeroth, ¶101. As such, a POSA would understand that the ’101 Patent uses “means” and “unit” as synonyms. *Id.* In *Cypress Lake Software v. ZTE*, as is the

case here, § 112, ¶6 was applicable because the patent at issue there interchangeably used “means for” in the specification with “code for” in the claims for the same functions. No. 6:17-CV-00300-RWS, 2018 WL 4035968, at *9 (E.D. Tex. Aug. 23, 2018). This further confirms that “content transmitting unit” is a means-plus-function term. See *WSOU*, 2023 WL 6210607, at *4 (“the interchangeable use of the ‘unit’ and ‘means’ leads to the conclusion that neither term discloses sufficient structure.”).

Tellingly, when the ’101 Patent application was originally filed, the relevant system claims recited a “content transmitting *means*” for performing the claimed functions. The applicant amended the claims at issue to require “content transmitting *unit*,”—solely replacing “means” with “unit” without amending the functional language. D.I. 83 (Ex. 4) at 213–20. But merely swapping “means” with “unit” lends no further structural support to the “unit” term, Ex. 12, Almeroth, ¶103, and thus cannot allow NEC to escape the ambit of §112, ¶6. NEC’s premise—that two limitations can be substantively identical, but that reciting “unit” (e.g., claims 1 and 16) connotes sufficient structure whereas that reciting “means” (e.g., claims 27 and 28) results in functional claiming—would amount to “blindly elevat[ing] form over substance when evaluating whether a claim limitation invokes § 112, para. 6.” *Williamson*, 792 F.3d at 1348.¹⁰

The specification uses the term as a “black box.” The specification further equates both the unit term and means terms with a third variant—“content transmitting *part*” referenced

¹⁰ Regarding the claims that use “*means*” as opposed to “*unit*” (claims 27 and 28), NEC asserts that the applicant “knew how to use that ‘means’ language, and used it when they wanted to, evinc[ing] a clear intent” to avoid §112, ¶6. *Supra*, 18. Again, this is irrelevant; whether a term is subject to §112, ¶6 is a question of law, and thus the inventor’s subjective intent is entitled to no weight. See e.g., *Cypress Lake Software*, 2018 WL 4035968 at *9 (“Whether a claim limitation invokes § 112, ¶6 is a question of law. ... [A] patentee cannot ‘opt-out’ of the controlling precedent by stating that his ‘intent’ is for it not to apply.”). As discussed above, a POSA reading the specification would understand that the applicant had used the words interchangeably. Ex. 12, Almeroth, ¶102.

nineteen times in the specification. *See, e.g.*, Ex. 1, '101 Patent, 5:67. Figure 2 depicts “content transmitting part” only as a generic box within the server device, lacking any internal components. The “content transmitting part” is assigned the same two functions as the claimed “unit”—“transmitting” content and “changing the code rate.” *See id.*, 8:48–52, 10:65–11:3. Collectively, this further confirms that “content transmitting unit” is “no more than a ‘black box recitation of structure’ that is simply a generic substitute for ‘means.’” *Egenera*, 972 F.3d at 1375. Finally, while the specification discloses corresponding structure (i.e., algorithm) for the “content transmitting unit,” this does not impart to that term a specific structure or class of structures generally understood to a POSA so as to avoid § 112, ¶6. *See, e.g.*, *MTD Prods.*, 933 F.3d at 1344; Ex. 12, Almeroth, ¶¶99–101.

NEC’s arguments should be rejected. NEC presents several arguments for why §112, ¶6 should not apply, all of which fail. First, NEC argues that the term is not means-plus-function because it is a part of another claimed component—a “transmission *device*”—and because the term provides an “operable connection between the ‘transmission device’ and ‘reception device.’” *Supra*, 19-20. Both arguments lack merit. Even assuming the claimed “transmission *device*” were sufficiently structural, “[m]ere inclusion of a limitation within a structure does not automatically render the limitation itself sufficiently structural.” *Egenera*, 972 F.3d at 1374. This is particularly true here because the “transmission *device*” appears to serve no purpose other than to contain the “transmitting unit” that performs multiple functions. Ex. 12, Almeroth, ¶97. Similarly, the presence of input and output connections is insufficient to impart the requisite structure if the claim and specification do not provide sufficient structure to those features. *Egenera*, 972 F.3d at 1374; Ex. 12, Almeroth, ¶98. NEC does not (and cannot) explain how including the “unit” within the “transmission device,” or the unit’s output to the “reception device” connotes sufficient structure.

Next, NEC relies on this Court’s claim construction ruling in *Triplay, Inc. v. Whatsapp, Inc.*, but *Triplay* is readily distinguishable. *First*, the “block” terms at issue in *Triplay*—unlike the “content transmission unit for” term here—were *not* drafted in traditional means-plus-function format. *Second*, unlike the ’101 Patent, the *Triplay* patents did *not* use “means” interchangeably with the claimed “block” terms, so as to convey means-plus-function treatment. *Third*, this Court noted that, as compared to the patents at issue in *Williamson* and *Media Rights Technologies*, the *Triplay* patents included “significantly more detail defining the block terms” so as to connote definite structure for those terms. *Triplay, Inc.*, 2016 WL 3574012, at *2. Such is not the case here. The ’101 Patent treats “content transmitting unit” as a black-box, failing to connote sufficient structure for both ascribed functions. Ex. 1, ’101 Patent, Fig. 2; Ex. 12, Almeroth, ¶¶95, 99.

Finally, NEC suggests that Peloton’s IPR Petition for the ’101 Patent is inconsistent with its § 112, ¶6 arguments here. Not so. Peloton’s IPR Petition makes clear that the arguments presented there were “consistent with what appears to be NEC’s interpretation of the claims as indicated [its] infringement contentions,” which, per 35 U.S.C. §§ 301(a)(2) and 301(d), the PTAB “may consider . . . to determine the proper meaning of patent claims in IPR proceedings.” *See* D.I. 86 at 29. Because Peloton did not adopt those positions, NEC’s reliance on the IPR petitions regarding this term and the “code rate determining unit” should be rejected.

Structure identified by Peloton performs the claimed function. Where the means-plus-function claim is computer-implemented, the structure is the special purpose computer programmed to perform the disclosed algorithm. *Aristocrat Techs. Australia Pty Ltd. v. Int’l. Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). As Dr. Almeroth explains, the corresponding structure is a central processing unit (CPU) programmed to carry out, for claim 1, the algorithm disclosed at 10:60–11:10 and, for claims 16 and 21, the algorithm disclosed at 10:7–11:10. *See* Ex.

12, Almeroth, ¶¶104–07 (explaining the functions ascribed to this term, and features of the algorithm (including equations and flow charts) and how they correspond to those functions).

c) NEC's Reply

Peloton misapplies the law regarding § 112, ¶6 treatment for software-related inventions.

[A] claim limitation to code has sufficient structure if, read in light of the specification, it: (1) recites a claim term with a structural definition that is generally known in the art; or (2) recites a known or generic term along with a sufficient description of the limitation's operation, such as its input, output or connections.

Oasis, 2023 WL 8005818, at *13-14 (citations and quotations omitted). Here, “content transmitting unit” has both a structural definition generally known to POSAs, as well as surrounding claim language that describes exactly how it operates. Ex. 15, Schonfeld, ¶¶48-51.

First, “content transmitting unit” alone, especially when read in view of the context of the invention, connotes sufficiently definite structure to a POSA.¹¹ This Court and the Federal Circuit have found similar “unit” language to be structural, and therefore not subject to § 112, ¶6. See, e.g., *IControl Networks, Inc. v. Zonoff Inc.*, No. 14-1199-GMS, 2016 WL 1437892, at *1, n.2 (D. Del. Apr. 11, 2016) (refusing to apply §112, ¶6 to “control unit for receiving signals from a variety of detection devices monitoring events pertaining to security”); *Samsung Elecs. Am. v. Prisua Eng'g Corp.*, 948 F.3d 1342, 1353-54 (Fed. Cir. 2020).¹²

Peloton concedes that “transmitting content may connote structure in some contexts,” Resp. Br. at 8, and does not dispute that a POSA would understand the claim as reciting sufficient structure with respect to the claimed operation of “transmitting content data, which is one content

¹¹ Peloton's argument for several of these alleged § 112, ¶ 6 terms that “unit” and “means” are used interchangeably does not demonstrate that the claim terms lack sufficient structure. See *O.I. Corp. v. Tekmar*, 115 F.3d 1576, 1584 (Fed. Cir. 1997). Indeed, the choice not to use “means” creates the rebuttable presumption that §112, ¶6 does not apply. *Williamson*, 792 F.3d at 1348.

¹² The authority cited in this section also applies to the other §112, ¶6 arguments below.

coded with any one code rate of a plurality of code rates different from each other, to the reception device.” Instead, Peloton alleges that the “content transmitting unit” performs another function—“chang[ing] the code rate of the [content] data”—and argues that a POSA would not contemplate a “content transmitting unit” to perform this function. *Id.* at 7-8. But Peloton selectively omits the surrounding claim language, which states “the content transmitting unit is configured to change the code rate of the content data to be transmitted to the reception device **to the determined code rate.**” Ex. 1, ‘101 Patent, Cl.1. When read in context, a POSA would understand that when the “content transmitting unit” “change[s] the code rate,” it does so by transmitting content coded with a code rate that has been “determined” by the “code rate determining unit,” which a POSA would understand is how the transmission structure performs this function. Ex. 15, Schonfeld, ¶49. A POSA would indeed contemplate that “content transmitting unit,” according to its known structural definition in the field of content streaming, would “change the code rate” as claimed. *Id.*; *infra* at 36 (conceding “the remainder of the claim limitations specify routine and conventional functions for content transmission and playback”).

Second, even assuming *arguendo* “content transmitting unit” did not have a known structural definition, the remainder of the claim language here specifies exactly *how* the code rate is determined and changed—namely, “based on a remaining time before reproduction start time set as time at which the reception device starts reproduction of the content from a present moment and based on an available reproduction time, which is a time available for reproducing the content based on the content data stored in the storage device of the reception device.” Ex. 1, ‘101 Patent, Cl. 16. Thus, the claim does not simply recite functions as a “black box,” but rather provides rules tethered to the other algorithmic structures of the claims and describes both *what* is changed and *how* it is changed. Ex. 15, Schonfeld, ¶50; *M2M Sols. LLC v. Sierra Wireless Am., Inc.*, 2015 WL

5826816, at *3-5 (D. Del. Oct. 2, 2015).¹³

Third, the specification further confirms the structural nature of the term and provides examples of the “*how*” recited in the claims. See Ex. 15, Schonfeld, ¶51; Ex. 1, ’101 Patent, 8:46-9:42; 10:44-11:10; 20:30-22:67; Figs. 2, 16. Thus, a POSA viewing the claim language, in light of these descriptions in the specification would have no difficulty understanding the sufficient structure recited in the claim, because the claim sufficiently identifies the term’s operation, including its relationship to other elements. See *Oasis*, 2023 WL 8005818, at *15; Ex. 15, Schonfeld, ¶51.

Fourth, Peloton’s positions in its IPR are indeed inconsistent, and demonstrate that Peloton was in that proceeding able to assign sufficiently definite structure without even looking to the specification. Peloton did not simply “adopt” a plain meaning in its IPR Petition. IPR Rule 42.104(b)(3) prohibits such an approach, and in the case of means-plus-function terms, requires Petitioners to “identify the specific portions of the specification that describe the structure, material, or acts corresponding to each claimed function.” 37 C.F.R. § 42.104(b)(3). In particular, Peloton agreed that “content transmitting unit” connoted sufficiently definite structure to a POSA in applying that term to the prior art in its IPR, without referencing the specification at 10:60-11:10 or 10:7-11:10 (i.e., what it now contends is the required structure). D.I. 86 at 26-30, 41-42, 52-53, 54-55. This is direct evidence that a POSA is able to identify the structure in the claim.

Lastly, Peloton’s arguments attempting to distinguish *Triplay* are flawed. Peloton suggests that the claims in *Triplay* “included ‘significantly more detail defining the block terms,’” but fails

¹³ Notably, description within the claim language itself was absent from the claims at issue in *Egenera* and other cases cited by Peloton. See *Egenera, Inc.*, 972 F.3d at 1377; see also *Williamson*, 792 F.3d at 1351. Here, a POSA would readily understand the term to connote sufficiently definite structure based both on the modifiers to the term (i.e., “content transmitting”) and the surrounding words within the claim. Ex. 15, Schonfeld, ¶¶ 48-50.

to explain how the claims here do not contain similarly sufficient details. To the contrary, the same level of detail defining the “block” term in *Triplay* is present in the term at issue here. The term in *Triplay* was “an access block configured to receive, directly or indirectly, from at least one originating communication device a message having initial characteristics comprising, at least message format and an initial message layout, and to transmit the message to at least one destination communication device.” *Triplay, Inc.*, 2016 WL 3574012, at *6. This is similar to the level of detail in the claims of the ’101 Patent, and the claims here go even further and provide additional details on *how* the change is made.

d) Peloton’s Sur-Reply¹⁴

Four key factors common to all five disputed “unit” terms demonstrate 112(6) applies:

- All disputed terms use the nonce word “unit” and are otherwise structured in traditional means-plus-function format;
- The patents use “means” and “unit” interchangeably indicating the terms are synonymous, and that neither connotes specific structure (*see WSOU*, at *4);
- NEC admits that 112(6) **does** apply to the corresponding “*means for*” limitations (which are otherwise identical) in other, non-asserted claims;
- All disputed terms were originally drafted using “means for” limitations but were amended during prosecution merely to replace “means” with “unit.”

Given these facts, NEC cannot escape 112(6) solely based on the word “unit.” NEC’s arguments to avoid 112(6) hinge on faulty arguments: its experts’ assertions, without evidentiary support, that each of the “unit” terms has “a structural definition generally known to POSAs” (*e.g.*, *Supra*, 26); NEC’s misapplication of this Court’s prior *Markman* rulings; and its improper conflation of the two distinct steps of the means-plus-function analysis by relying on admitted

¹⁴ In its Sur-Reply Brief, Peloton grouped five terms under one heading with the same argument. The five terms grouped together in the Sur-Reply are: “content transmitting unit”; “code rate determining unit”; “bit rate changing unit;” “bit rate change request transmission unit”; “remaining reproduction time acquisition unit.”

“examples” in the specification as allegedly defining the claim terms.

No generally-known “structural definition.” None of the disputed “unit” terms have a structural definition that is generally known in the art. Peloton’s expert, Dr. Almeroth, confirmed this by looking to technical dictionaries and running patent searches. Ex. 12, Almeroth, ¶¶95; 109-10; 165-6, 181-2; 195-6. NEC’s expert, Dr. Schonfeld, reaches opposite conclusions, but fails to corroborate them with *any evidence*. See Ex. 15, Schonfeld, ¶¶48-49, 53-54, 70-71, 76-77, 82. Such “conclusory, unsupported assertions by experts as to the definition of a claim term are not useful to a court.” *Aristocrat Techs.*, 709 F.3d at 1361 (emph. original).¹⁵

Surrounding language does not impart structure. As to each disputed “unit” term, NEC fails to show that the language surrounding the term connotes sufficient structure to avoid 112(6). NEC repeatedly cites *Oasis*, which is distinguishable. In *Oasis*, the claim specified “what *algorithmic components* the [disputed] normalizer logic must ‘include’ in order to perform the [recited] function”—“a ‘partitioning module’ and a ‘canonical forming module.’” 2023 WL 8005818, at *16 (D.Del. Nov. 17, 2023). Here, the claims do not specify any *algorithmic components* “included” in any of the “unit” terms. At most, the surrounding language provides inputs to the “unit” terms for performing the functions, or connotes structure for components *external to* the “unit.” Ex. 12, Almeroth, ¶¶97, 111-12, 167, 183, 196. This alone does not connote structure for the “unit” terms themselves. See *Barry v. Stryker Corp.*, 2023 WL 1765651 (D.Del. Feb. 3, 2023) (“[E]ven though the claim language discloses ‘what must be linked and what is required of linking,’ this language describes the **function** of the ‘linking members,’ not their

¹⁵ This is not the first time Schonfeld provided expert testimony that was deemed conclusory. See Ex. 19, at 16-23 (excluding opinions and testimony of Schonfeld, in patent case relating to audio compression technology, as unreliable, criticizing his “reports and opinions [as] almost entirely conclusory.”). Schonfeld’s *ipse dixit* analysis here parallels his excluded opinions in the *Audio MPEG* case, and the Court should thus disregard his conclusory, unsupported allegations.

structure.”). Further, the “normalizer logic” term in *Oasis* did not share any of the key 112(6) factors for the terms here. *M2M Sols.* is also distinguishable. There, the plaintiff identified “sufficient algorithmic structure” in the claim limitation, and the defendant presented “no expert testimony to prove that a person of skill in the art would not understand the claim limitation as providing sufficient structure.” *M2M Sols. v. Sierra Wireless*, 2015 WL 5826816, at *3-4 (D.Del. Oct. 2, 2015). Here, it’s the opposite; NEC does not identify algorithmic structure for any of the “unit” terms, and Peloton’s expert cited technical dictionaries and ran patent searches to prove that the disputed “unit” terms are not well understood as connoting structure, whereas NEC’s expert offers only *ipse dixit* to suggest otherwise.

NEC mistakes “corresponding structure” for “structural definition.” Whether the claim is directed to software code, or any other technical field, the Federal Circuit has explained:

Interpretation of an asserted means-plus-function limitation involves two steps. **First**, we determine if the claim limitation is drafted in means-plus-function format,” for which “we consider whether the claim limitation ‘connotes sufficiently definite structure’ to a [POSA]. If we conclude that the limitation is in means-plus-function format, the **second step** requires . . . review[ing] the specification to identify the structure that performs the claimed functions and thus “corresponds to” the claimed means. While related, **these two inquiries are distinct.**”

MTD Prods. v. Iancu, 933 F.3d 1336, 1344 (Fed. Cir. 2019). Though the “specification plays a role in assessing whether particular claim language invokes §112, 6,” it does so if it informs the structural nature of the term, by “***expressly defining*** the claim term,”—i.e., where “the patentee intended to act as its own lexicographer and define” the term in dispute. *See id.*¹⁶

¹⁶ Other Federal Circuit cases reiterate this. *Team Worldwide Corp. v. Intex Recreation Corp.*, 2021 WL 4130634 (Fed. Cir. 2021) (finding “pressure control assembly” subject to 112(6) since “nothing in the specification provides a ***structural definition*** for [the term] or indicates the patentee ***acted as a lexicographer to define the term***,” agreeing “any structure arguably disclosed [as] an embodiment cannot support a finding that the term itself connotes a specific structure.”); *Media Rights Technologies, Inc. v. Capital One Financial Corp.*, 800 F.3d 1366,

For all five 112(6) terms, NEC’s analysis runs afoul of this directive by conflating the two distinct inquiries—citing admittedly “*exemplary*” disclosures in the specification which, at best, are merely “corresponding structure” under step two of the inquiry, to suggest that the disputed “unit” terms connote sufficient algorithmic structure. The flaw is reflected throughout NEC’s analysis of the patent specifications, purportedly for “step one” of the inquiry. *See e.g. infra*, 40, (“[t]he specification provides *exemplary* embodiments...including *exemplary* formulas”); 15 (citing specification “*examples*”); 63 (citing explanations of how term “*may be* formed”).¹⁷ The Federal Circuit has criticized this approach, as it “implies that so long as a claim term has corresponding structure in the specification, it is not a means-plus-function limitation,” which would “leave §112, 6 without any application.” *MTD Prods.*, 933 F.3d at 1344.

[“*Content transmitting unit*” *only.*] Contrary to NEC’s reply, the claims ascribe two distinct functions to this term: “changing” and “transmitting.” NEC’s argument that “when the ‘content transmitting unit’ ‘*changes* the code rate,’ it does so *by transmitting*” (Reply, 6) makes no sense. A transmitter transmits; it doesn’t change the code rate. For example, Claim 16 does *not* recite a “code rate determining unit” at all, yet still ascribes the same “changing” function to the

1372-73 (Fed. Cir. 2015) (observing the specification only depicts “how the ‘copyright compliance mechanism’ *functions*, and [its] *potential—though not mandatory*—functional components,” “[n]one of [which] *define* “compliance mechanism in specific structural terms.”).

¹⁷ NEC mischaracterizes Peloton’s argument regarding the *Triplay* case. *Supra*, 28 (referencing what Peloton suggested about “*the claims in Triplay*”). Peloton argued that the *Triplay patents* contained significantly more detail regarding the disputed “block” terms, than the ’101 and ’809 patents do regarding the “unit” terms, “so as to connote definite structure for those terms.” *Supra*, 25; *see e.g.*, Ex. E, Fig. 2 (showing several algorithmic components for each of the “access block 21” and “media block 23” components). Here, NEC’s patents treat the disputed “unit” terms as non-detailed black boxes, and NEC admits that any specification disclosures are not definitional, but merely “*exemplary*.”

“content transmitting unit.”¹⁸

4. “code rate determining unit” (claims 1, 2, 4, 22, 23, and 26)

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning not subject to 35 U.S.C. § 112, ¶ 6.	Means-plus-function term governed by 35 U.S.C. § 112, ¶ 6

a) NEC’s Opening Position

As for the other terms Peloton contends should be interpreted under § 112, ¶ 6, a similar analysis applies as above. *Supra*, § III.A.3.b. The claimed “code rate determining unit” does not recite the word “means,” and therefore § 112, ¶ 6 is presumed not to apply, *Diebold*, 899 F.3d at 1298, and the surrounding claim language recites in detail exactly how a code rate is determined (i.e., “determining the code rate based on a remaining time before reproduction start time set as time at which the reception device starts reproduction of the content from a present moment and based on an available reproduction time, which is a time available for reproducing the content based on the content data stored in the storage device of the reception device”). The claim recites sufficient structure, and Peloton thus cannot overcome the presumption against § 112, ¶ 6. *Phillips*, 415 F.3d at 1314.

As a preliminary matter, the modifier “code rate determining” alone is enough to connote sufficiently definite structure such that § 112, ¶ 6 is not invoked. *See Williamson*, 792 F.3d at 1351; *Panoptis* 2017 WL 497571, at *3-8 (finding “determination unit” not governed by § 112, ¶ 6 and construing to have plain meaning); *OPTIS Wireless Tech. LLC v. ZTE Corp.*, No. 2:15-300-JRG-RSP, 2016 WL 1599478, at *25 (E.D. Tex. Apr. 20, 2016) (“Even if the term ‘determination unit’ does not in isolation connote sufficiently definite structure, the claim connotes structure to

¹⁸ Contrary to NEC’s suggested admission by Peloton, *Supra*, 28 (citing *Supra*, 27), Dr. Almeroth clearly stated that a POSA would **not** have known of “a content transmitting unit” that both changed the code rate and transmitted the changed code rate. Ex. 12, Almeroth, ¶113, n.2.

one of skill in the art by reciting details of how the unit functions as part of the claim.”). Here, the claim language goes even further than the claims in *OPTIS*—namely, reciting additional structure by adding the additional modifier “code rate” before “determining unit,” and further by reciting not only what is being determined (the code rate), but also, exactly *how* it is determined. ’101 Patent at Cl. 1; *see also* claims 22, 23, and 26. For example, the claim specifies that the code rate is determined by using the “remaining time before reproduction start time” and “an available reproduction time” based on the “content data stored in the storage device of the reception device.” *Triplay, Inc.*, 2016 WL 3574012, at *8 (finding “access block” did not invoke 112(6) because the patent “is articulating how certain hardware and software (i.e., a computer configured in a certain way) is meant to work.”). The claim also recites sufficient structure by linking the code rate determining unit to the other claim elements such as the “storage device,” the “reception device,” and explaining that “the content transmitting unit is configured to change the code rate of the content data to be transmitted to the reception device to the determined code rate.” Ex. 1, ’101 Patent at Cl. 1. Thus, the “code rate determining unit” connotes sufficient structure when viewed in context of the plain language of the claim, *Triplay, Inc.*, 2016 WL 3574012, at *7, for similar reasons as for the term “content transmitting unit.” *Supra*, § III.A.3. The specification confirms the structure expressly specified in the claim language. *See, e.g.*, Ex. 1, ’101 Patent at Figs. 1, 2, 13, and 16. *See MTD Prod. Inc. v. Iancu*, 933 F.3d 1336, 1342 (Fed. Cir. 2019) (The ultimate question is whether “the claim language, *read in light of the specification*, recites sufficiently definite structure to avoid § 112, ¶ 6.”) (internal citations and quotations omitted) (emphasis supplied)).

Peloton’s inconsistent position on this point in its IPR is, once again, instructive. *Supra*, § III.A.3. Peloton did not attempt to construe “code rate determining unit” as a means-plus-function

term in its IPR petition, and Peloton and its expert had no trouble arguing that this claimed feature was allegedly found in the prior art—without needing to refer to the ’101 Patent’s specification for any additional description of structure. See D.I. 86 at 29, 45-52 (IPR petition against ’101 Patent). In fact, in its IPR petition, Peloton once again expressly represented to the PTAB that it believed no construction was necessary for this term, and that it should be given its plain meaning under *Phillips* (and, it did not identify the term as subject to § 112, ¶ 6, as it would have been required to do under 37 C.F.R. § 42.104(b)(3) if it believed § 112, ¶ 6 applied). *Id.* at 29.

b) Peloton’s Answering Position

The presumption that the § 112, ¶6 does not apply for “code rate determining unit” is rebutted for largely the same reasons as for “content transmitting unit.” Specifically, the term alone is insufficient to connote structure for performing the claimed functions to a POSA; the language surrounding “unit” is functional, and the term is otherwise written in traditional means-plus-function format; the specification treats the term as a “black box” without imparting a structural definition, and the patent uses the *unit* and the *means* terms interchangeably.

“Code rate determining unit” does not connote structure to a POSA. The claims specify that the function of “code rate determining unit” is to “determine the code rate based on a remaining time before reproduction start time . . . and based on an available reproduction time.” See Ex. 1, ’101 Patent, cls. 1, 22, 26. As Dr. Almeroth explains, there are no commonly understood structures that perform the claimed functions and the term simply connotes function to a POSA. Ex. 12, Almeroth, ¶¶109–10. Notably, the claims of the ’809 Patent ascribe similar functionality to a different term, “bit rate changing unit,” § III.B.3.b, *infra*, undermining the suggestion that either term is commonly understood as structural.

The term is otherwise written in traditional § 112, ¶6 format. As discussed in Section

III.A above, “unit” is a well-known “nonce” term, and the term “code rate determining unit” is otherwise drafted in traditional means-plus-function format. The language surrounding “unit” is likewise purely functional, lending no structural support, much less “sufficiently definite” structure. First, the modifier *determining* implies that the function of the unit is to determine and does not designate any particular structure. Ex. 12, Almeroth, ¶¶109, 114. See *Canon, Inc. v. TCL Elecs. Holdings Ltd.*, No. 2:18-CV-546-JRG, 2020 WL 2098197, at *45–47 (E.D. Tex. May 1, 2020) (“There is no evidence that the ‘determining unit’ term is used in common parlance, is a term of art, or is used by persons of skill in the pertinent art to designate structure.”); see also *SPH America, LLC v. AT&T Mobility, LLC*, No. 3:13-cv-2318-CAB-KSC, 2016 WL 1714263, at *2 (S.D. Cal. Feb. 16, 2016) (“determination unit” found subject to §112, ¶6). Appending *code rate* before *determining unit* simply conveys *what* is to be determined. These words likewise do not connote any specific structure. Ex. 12, Almeroth, ¶109. Further, the language that follows “code rate determination unit” simply restates the function (“determining the code rate”) and specifies two values (a “remaining time before reproduction start time, and an “available reproduction time”) that the determination is “based on.” Ex. 1, ’101 Patent, cls. 1, 22, 26. Such language fails to convey anything regarding the structure for making the determination.¹⁹ Ex. 12, Almeroth, ¶¶111–12.

Importantly, the remainder of the claim limitations specify routine and conventional functions for content transmission and playback. Ex. 12, Almeroth, ¶113. As such, the point of novelty, if any, lies in the “code rate determining unit,” further warranting means-plus-function

¹⁹ Similarly, the dependent claims specify additional detail regarding the “value” the “unit” must determine (claims 2, 23), or the frequency with which the determination is made (claims 4, 25), neither of which connote any more structure than the independent claims. Ex. 12, Almeroth, ¶108, n.1.

treatment. *See Warner-Jenkinson Co., Inc. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 27–28 (1997) (explaining that Congress enacted §112, 6 to counteract the “use [of] ‘conveniently functional language at the exact point of novelty.’” (cit. omitted)).

The patent uses “unit” and “means” interchangeably. Synonymous usage of the words “unit” and “means” (*see* § III.A.3.b, *supra*) in the ’101 Patent further confirms that “code rate determining unit” is subject to § 112, ¶6. *WSOU*, 2023 WL 6210607, at *4. Similar to “content transmitting unit,” the specification recites “code rate determining *means*” (nineteen times) for performing the same function ascribed to the claimed “code rate determining unit.” Ex. 12, Almeroth, ¶¶115–17. The term “code rate determining unit” likewise stems from an amendment to the initial claim set during prosecution, wherein the applicant simply replaced the word “*means*” with “*unit*” but left the remaining functional claim language intact, D.I. 83 (Ex. 4) at 213–20. Other issued claims recite “code rate determining *means*” instead of “*unit*” but include the same functional language. Ex. 1, ’101 Patent, cls. 27–28; Ex. 12, Almeroth, ¶¶118–19. Again, none of this is sufficient to take the “code rate determining unit” outside of the ambit of means-plus-function. An applicant cannot “opt out” of §112, ¶6 by simply swapping “means” with “unit” without adding structural elements. *Cypress Lake*, 2018 WL 4035968, at *9.

The specification uses the term as a “black box.” Similar to “content transmitting unit” the specification equates the unit and means terms to “code rate determining *part*”—mentioned nineteen times and shown in figures. *See, e.g.*, D.I. 83 (Ex. 4) ’101 Patent, 6:1–2, Figs. 2, 16. The “code rate determining part” is similarly depicted only as a generic box within the server/transmission device (Figures 2 and 16), or in the reception device (Figure 16), lacking internal components. The specification discloses inputs and outputs, and a corresponding algorithm for the “content transmitting unit,” but this does not impart a specific structure or class of structures

generally understood to a POSA for the term. *MTD Prods.*, 933 F.3d at 1344; Ex. 12, Almeroth, ¶116.

NEC’s arguments lack merit and should be rejected. NEC’s arguments for “code rate determining unit” largely mirror its arguments for “content transmitting unit,” and fail for largely the same reasons discussed above. *See* §III.A.3.b. In particular, NEC alleges that the claims “link[] the code rate determining unit to the other claim elements such as the ‘storage device’ and the ‘reception device,’” *Supra*, 34, but does not describe such links let alone how they connote sufficient structure for the “determination unit.” For example, the code rate is determined by the unit “based on content data stored in the storage device of the reception device.” Ex. 1, ’101 Patent, cl. 1. The storage device is separate from the “determination unit” and the “transmission device” that contains the unit—and neither the claim nor the specification contemplate that there is any link between the “storage device” and the “determination unit.” Thus, the storage device that merely stores content cannot lend any structure. Ex. 12, Almeroth, ¶111. More broadly, NEC fails to explain how merely referencing input and output connections lends any structure to the “determination unit” itself. NEC’s reference to “content transmitting unit” is fruitless because the transmitting unit does not disclose any structure for determining the code rate, and, thus, cannot impart any structure to “code rate determining unit.” NEC’s reliance on *Triplay* is also misplaced for the same reasons as for “content transmitting unit.” *See* §III.A.3.b.

Structure identified by Peloton performs the claimed function. As Dr. Almeroth explains, the corresponding structure for the “code rate determining unit” is a CPU programmed to carry out the algorithm disclosed at 10:7–59. Ex. 12, Almeroth, ¶¶120–22.

c) NEC’s Reply

As with “content transmitting unit,” here the surrounding claim language describes how

the “code rate determining unit” operates, and thus connotes sufficient structure to a POSA. *See Oasis*, 2023 WL 8005818, at *14. Ex. 15, Schonfeld, ¶¶53-56. First, Peloton repeatedly refers to the claim as reciting a “black box,” while ignoring the case law and the claim language.²⁰ As explained above, the case law refers to a “black box” when referencing functional claiming without limits on how the function is implemented, without any structural connections. That is not the case for “code rate determining unit,” which has surrounding language that explains *how* it should be carried out.

The modifier “code rate determining” alone in view of the context of the invention and the claim language connotes sufficient structure to a POSA. Ex. 15, Schonfeld, ¶¶53-55. Further, the claim language explains that the “code rate determining unit” determines the code rate “based on a remaining time before reproduction start time set as time at which the reception device starts reproduction of the content from a present moment and based on an available reproduction time, which is a time available for reproducing the content based on the content data stored in the storage device of the reception device.” Ex. 15, Schonfeld, ¶55. The claim language also explains the “input, output, or connections,” *Oasis*, 2023 WL 8005818, at *14, to the “code rate determining unit”—namely, the two inputs considered (remaining time and available reproduction time), and the output being a determined code rate, which is one of the “plurality of code rates different from each other” recited in limitation 1[a], that is then transmitted to the reception device by the “content transmitting unit.” Ex. 15, Schonfeld, ¶55. This is no “black box”—the claim itself explains what

²⁰ Additionally, Peloton’s identified structure (a CPU programmed to carry out the algorithm on 10:7-59) is incorrect because it renders at least dependent claims 2-3 superfluous. Ex. 15, Schonfeld, ¶ 57; *compare* Ex. 1, ‘101 Patent, 10:19-24 with Cl. 2; *compare* Ex. 1, ‘101 Patent, 10:24-30 with Cl. 3; Ex. 16, Almeroth Tr., 160:24-161:24. Moreover, Peloton’s identified structure is taken from the “first exemplary embodiment,” *see* Ex. 1, ‘101 Patent, 5:11, to the exclusion of the algorithmic structure identified for the “second exemplary embodiment.” *Id.* at 18:58-61, 19:10-18.

must happen, and *how*, providing more than sufficient structure. *Id.*

Second, the specification and other claims further confirm a POSA would understand the term to connote sufficiently definite structure. For example, the depiction of the “code rate determining part” in Figs. 2 and 16 demonstrate that the program may be executed on the transmission device (i.e., a server) or the reception device. Ex. 15, Schonfeld, ¶56. Thus, a POSA would readily understand the code rate determining unit as software instructions executed on one or more processors, to determine the code rate based on a recited set of rules, and which code rate is used later in the claim to change the bit rate to the determined bit rate. *Id.* Further, the corresponding dependent claims, such as Claims 2, 4, 23 and 25, also further articulate, in even greater detail, how the code rate determining unit operates, for example, “to determine a value becoming smaller as the available reproduction time becomes shorter than a target available production time....” Moreover, the context of other claims, including Claim 26, further demonstrates that the “code rate determining unit” structure includes a “program comprising instructions for causing a reception device” to perform the recited steps. The specification provides exemplary embodiments that further describe the “*how*” set out in the claims—including even providing exemplary formulas that may be applied and further articulating how the code rate determining unit interacts with other parts of the system. See Ex. 1, ’101 Patent, 10:7-11; 19:40-20:6; 22:3-23:40; Figs. 2 and 16. A POSA viewing the claim language, in light of the specification, will have no difficulty understanding this term’s operation as recited, including its relationship to other elements, such that it connotes sufficient structure. See *Oasis*, 2023 WL 8005818, at *15; Ex. 15, Schonfeld, ¶56.

Third, contrary to Peloton’s terse defense of its inconsistent IPR positions, Peloton did not simply “adopt” a plain and ordinary meaning in its IPR Petition. Peloton argued that “[the code

rate determining unit's] structure and function were also generally known by POSAs.” D.I. 86, at 52. Here, Peloton argues the opposite. *Supra* at 35; *compare also* Ex. 16, Almeroth Tr., 170:21-25 and 176:8-23 with D.I. 86, at 45-52 (no explanation of how prior art discloses equations 4 and 5). *Fourth*, Peloton's arguments attempting to distinguish *Triplay* are flawed for the same reasons as described for “content transmitting unit.”

d) Peloton's Sur-Reply

(See §III.A.3.d)

[“**Code rate determining unit**” *only*.] NEC suggests this term is sufficiently structural because a POSA would have been capable of drafting software code to perform the recited functions. See Reply (“[A] POSA would readily understand the code rate determining unit as *software instructions* executed on one or more processors, to determine the code rate based on a recited set of rules, and which code rate is used later in the claim to change the bit rate to the determined bit rate.”). These rules merely characterize function, not structure.

As to Peloton's identification of corresponding structure, NEC asserts Peloton's cited algorithm is incorrect because it renders superfluous dependent claims 2-3. Reply, n.20. NEC's reasoning—that claim differentiation can trump the statutory requirement of 112(6)—has been expressly rejected by the Federal Circuit. “A means-plus-function limitation is not made open-ended by the presence of another claim specifically claiming the disclosed structure which underlies the means clause or an equivalent of that structure.” See *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1538 (Fed. Cir. 1991). NEC also asserts that Peloton's identified structure is “taken from the ‘first exemplary embodiment’...to the exclusion of the algorithmic structure identified for the ‘second exemplary embodiment.’” Reply, n.20. But neither NEC, nor Schonfeld, points to any algorithm unique to the second embodiment (Figure 16), which merely shows the “code rate

determining part” can be located in the transmission device and/or reception device. See Ex. 21, Schonfeld Tr., 100:1-106:11. Further, the descriptions under the second embodiment heading refers to the same structures as the first embodiment, Ex. 1, ’101 Patent, 22:3-5; 13-16; 43-51; 62-67; 23:4-9, 33-40, underscoring they all refer back to the same algorithm.

B. The ’809 Patent

1. “the bit rate” (claims 1, 18, 22, 26, and 30)

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning. <i>Alternatively:</i> the bit rate of the content data to be transmitted	the bit rate of the content data currently transmitted

a) NEC’s Opening Position

The term “bit rate” is well understood and needs no construction. The claims and specification confirm that this term is used consistently with its typical usage to describe a characteristic of the content data to be transmitted over the network. Ex. 2, ’809 Patent at Cls. 1, 18, 22, 26, and 30, 11:15-19.

Peloton seeks a tortured view of “bit rate” that is contrary to the claims, the specification, and common sense. The claimed system is directed to controlling and determining a bit rate for content data, but it would be nonsense to do so to “data currently transmitted,” as Peloton proposes, as that would effectively seek to control the bit rate for content data *that was already transmitted*. The only sensible reading of the claimed invention is that it is a forward-looking system and invention that controls the bit rate of the data *to be transmitted* going forward.

The claims and specification confirm NEC’s position. For example, the claim language recites a device “*configured to be able to transmit*, to the client device, content data in which a piece of content is encoded at an arbitrary one of a plurality of different bit rates.” Ex. 2, ’809 Patent at Cl. 1 (emphasis added). The specification confirms that “the bit rate” refers to the bit rate

of content data *to be transmitted*. See, e.g., Ex. 2, '809 Patent at 11:15-19 (“when content data is **to be** delivered ... via a communication network the communicable band of which varies, the bit rate of content reproduced by the client device 20 will vary frequently.”), 14:24-28 (“when the bit rate of content data **to be** transmitted ... is increased, the bit rate correction unit 14 uses a value obtained by halving the calculated correction amount baseline value”), 16:43-47 (“[t]he CPU then calculates a bit rate b' of content data to be transmitted ... on the basis of the bit rate b of the content data being currently transmitted and the calculated correction amount baseline value”), 6:4-7, 11:25-28, 14:10-16, 17:30-40, 20:55-57, 21:11-18, 21:47-54, 22:14-22, 22:36-48, 26:53-57, 27:36-59. That is, the specification consistently describes the bit rate as forward-looking—i.e., relating to the transmission rate of yet-to-be-transmitted content data is unsurprising given that the goal of the invention is to prevent “the bit rate of content reproduced by the client device 20 [from] vary[ing] frequently [which] may extremely deteriorate the user’s quality of experience (QoE) that is a service quality a viewer of the content will perceive.” *Id.* at 11:15-21.

Peloton’s proposed construction ignores the plain language of the claims, and the consistent specification disclosure, and common sense, to change the meaning of “the bit rate” to apply only to content data that has already been/is already being transmitted. There is no support for this tortured interpretation, and it should be rejected as contrary to the claim language, the specification, and common sense.

b) Peloton’s Answering Position

One purpose of the invention is to ensure that a target amount of content data is maintained in the storage of a reception device. Ex. 12, Almeroth, ¶123; Ex. 2, '809 Patent, 1:22–36. To achieve that goal, the delivery system can update the bit rate of the content data being transmitted by a correction amount when the amount of content in storage falls above or below that target. Ex.

2, '809 Patent, Ex. 12, Almeroth, ¶123; Ex. 2, '809 Patent, 12:16–23. But in order to avoid large fluctuations in the bit rate when transmitting the next segment, the system constrains the magnitude of the correction amount when the current bit rate falls within a particular range. Ex. 12, Almeroth, ¶¶128–144; Ex. 2, '809 Patent, 1:42–4:24. Large fluctuations are undesirable because they result in poor video quality. Ex. 2, '809 Patent, 1:42–47. That purpose of invention is reflected in the claims that refer to the current bit rate that may be corrected by the delivery system to determine a future bit rate. The parties dispute as to which bit rate the phrase “*the bit rate*” applies. Peloton believes the phrase as employed in the claims refers to the bit rate of the content data *currently* transmitted, i.e., the bit rate before applying any correction. On the other hand, NEC argues it refers to the bit rate of the content data *to be* transmitted, i.e., the corrected bit rate. NEC’s construction is incorrect; while the data *to be* transmitted certainly has *a bit rate*, it is not *the bit rate* as recited in the claims. Ex. 12, Almeroth, ¶¶148–157.

The claims of the '809 Patent employ “the bit rate” as the rate of data currently transmitted. An alleged point of novelty of '809 Patent is that the system is able to change the bit rate of the content that is transmitted by a server to a terminal. In particular, claim 1 requires a bit rate changing unit that calculates “a correction amount for correcting *the bit rate* of the content transmitted by the server.” See Ex. 2, '809 Patent, cls. 1, 14, 18, 22, 26, 30, 34, 35, and 36 (requiring “correcting the bit rate” or “changing the bit rate”). The claims indicate that “*the bit rate*” is being corrected by “a correction amount,” and thus, the term refers to the bit rate of the data that is currently being transmitted that will be corrected. The structure of the claim logically supports Peloton’s construction. If the system is calculating a correction to correct *the bit rate*, it logically follows that what is being corrected (i.e., the bit rate) already exists. Ex. 12, Almeroth, ¶150.

Claim 14 also supports the construction of “the bit rate” as being the bit rate being

transmitted, not a bit rate to be used in the future. Claim 14 calculates two different correction amounts (i.e., by how much the existing bit rate should be increased or decreased) depending on whether “the bit rate is not within a predetermined correction amount reducing range” or “the bit rate is within the correction amount reducing range.” Then, claim 14 goes on to “chang[e] the bit rate” based on either of these correction amounts. Since “the bit rate” is a necessary input for calculating the correction amount, “the bit rate” cannot possibly be the bit rate of the content data to be transmitted after applying the correction amount. That is, the output of a calculation cannot also be an input to the calculation. Thus, claim 14 refers to the bit rate that is currently in use by the server which may be corrected, and not the bit rate that results from claim 14’s calculation. Likewise, all other independent claims determine whether “the bit rate is within a . . . correction amount reducing range” before correcting the bit rate. Thus, the phrase “the bit rate” refers to the bit rate currently in use which may be corrected.

The specification describes bit rate as the rate of data currently transmitted. As discussed above, the claims compare “the bit rate” to a “correction amount reducing range” when determining a correction amount to apply to the bit rate. This is because if the bit rate that is currently in use by the system is already within an acceptable range, there is no need to change the bit rate unnecessarily to cause fluctuations of bit rate. Ex. 12, Almeroth, ¶¶128–129, 153; Ex. 2, ’809 Patent, 18:35–41. The specification consistently refers to “the bit rate *b* of the content data ***currently transmitted***” as the bit rate that is used in the same way as “the bit rate” is used in the claims. Ex. 2, ’809 Patent, 13:27–31; *see also id.*, 11:25–32; 16:36–39; 20:49–51; Ex. 12, Almeroth, ¶¶151–56.

Figure 8, a flow chart illustrating how the corrected bit rate is calculated, confirms this understanding. Ex. 12, Almeroth, ¶¶140–41; 151–52. In step 805 of the figure, the bit rate “*b*” is

compared to the reducing range ($b_{\min}$ and $b_{\max}$). At this point, because the correction amount has not yet been calculated, “the bit rate” can only refer to the rate currently in use and not the future rate. Finally, step 815 removes any doubt that “the bit rate” refers to the current rate, which is different from a bit rate of the content data to be transmitted:

The CPU then calculates **a bit rate b' of content data to be transmitted** by the server device 10 from then on, **on the basis of the bit rate b of the content data being currently transmitted** and the calculated correction amount baseline value Δb (step 815).

Ex. 2, '809 Patent, 16:43–47. NEC incorrectly argues that “the bit rate” recited in the claims refers to **bit rate b'** (the corrected bit rate). However, the claims make clear that they refer to **bit rate b** and **not** bit rate b' . The claims require that the bit rate must be compared to a correction amount reducing range before the bit rate is updated by the correction amount. In the specification, **bit rate b** , and not **bit rate b'** , is compared to the reducing range. Ex. 2, '809 Patent, 13:18–14:4; 16:36–47, 20:49–58, Fig. 8; Ex. 12, Almeroth ¶¶154–56. Thus, contrary to NEC’s assertion, *Supra*, the corrected **bit rate b'** cannot be the bit rate specified in the claims.

NEC’s contention that “the specification consistently describes the bit rate as forward-looking” misses the point. *Supra*, 42-43. The specification discusses both the **bit rate b** of the content data currently transmitted and the **bit rate b'** of the content data to be transmitted as discussed above, but the specification unambiguously shows that the bit rate that is compared to the correction amount reducing range as in the asserted claims of the '809 Patent is the bit rate b of the content data currently transmitted. See, e.g., *Carrum Technologies*, 2021 WL 3574209 at *5–6; *Decisioning.com*, 527 F.3d at 1310–11.

c) NEC’s Reply

As a threshold matter, Peloton’s construction for “the bit rate” is ambiguous as to what is meant by “currently transmitted.” Ex. 16, Almeroth Tr., 182:18-183:20, 184:17-20. For example,

Peloton states that “the term refers to the bit rate of the data that is currently being transmitted that will be corrected.” *Supra* at 44. Once the server device starts transmitting the content data, however, it is no longer possible to correct that content data’s bitrate within the context of the claims. Ex. 15, Schonfeld, ¶60; Ex. 16, Almeroth Tr., 185:7-11. Thus, to the extent “currently transmitted” content data, in Peloton’s construction, means content that has already left the server (i.e., data which the server has already started transmitting), Peloton’s construction is inconsistent with the claim language and embodiments in the specification. Ex. 15, Schonfeld, ¶¶59-65; Ex. 16, Almeroth Tr., 187:3-21. Indeed, it would be nonsensical and contrary to the stated purpose of the invention, which is to look forward and control the bit rate for content data *to be* transmitted—something that would not be possible for data that has already been transmitted. *Id.*; Ex. 2, ’809 Patent, 1:42-47. Thus, the claim language, if any construction is needed, refers to “the bit rate” of the content data to be transmitted by the server. Ex. 15, Schonfeld, ¶¶ 60-65. This construction covers all embodiments in the specification, including that depicted in Figure 8 where, for example, the exemplary algorithm starts from the assumption that the “current” bitrate “b”—i.e., the bitrate of the previous data transmitted—will be the bitrate “to be” transmitted going forward, unless certain conditions require changing it. *Id.* A POSA would have understood, however, that Figure 8 is only an example, and that the correction amount calculation procedure need not start from the assumption that the current bitrate “b” will be the bitrate to be transmitted, as illustrated by the “third exemplary embodiment” in the specification. *Id.*; Ex. 2, ’809 Patent, 22:14, 22:37-48.

Alternatively, to the extent “currently transmitted” in Peloton’s construction means something broader (e.g., such that “currently transmitted” data could include content data to be immediately transmitted by the server after the correction to the bit rate is made), NEC agrees that

the claims cover that scenario, but it is still too limiting. Nothing in the claims or the specification preclude “the bit rate” from referring to content data that will be transmitted in the future. Ex. 15, Schonfeld, ¶62. The specification makes clear that “the bit rate” refers to the bit rate of content data “to be transmitted.” *See, e.g.*, Ex. 2, ’809 Patent, 22:36-48; *see also id.* at 6:4-7, 11:25-28, 14:10-16, 17:30-40, 14:24-28, 20:55-57, 21:11-18, 21:47-54, 22:14-22, 26:53-57, 27:36-59.²¹

d) Peloton’s Sur-Reply

NEC distorts Peloton’s construction, suggesting “currently transmitted” content data means either “content that has already left the server” or “content data to be immediately transmitted.” Reply. But the specification uses the exact same language, and distinguishes the bit rate *b* (currently in the system’s setting that is being used to code and transmit content data) from the bit rate *b*’ (the result of applying a correction amount to *b*). The specification calls the former value “a bit rate *b* of content data being currently transmitted” and the latter value “a bit rate *b*’ of content data to be transmitted.” Ex. 2, ’809 patent, 16:36-47. Contrary to NEC’s assertion, the bit rate *b* of content data being currently transmitted can be readily corrected because it is the bit rate that will continue to be used unless a correction is made. Ex. 24, Almeroth-2, ¶¶35-37.

The dispute here is whether “the bit rate” in the claims refers to “the bit rate *b*” or “the bit rate *b*’,” and Schonfeld admitted that “[t]he bit rate is referring to *b*” in claim 1. Ex. 21, Schonfeld Tr. 119:4-120:4. To the extent that NEC’s position is that either a bit rate *b* or a bit rate *b*’ can be used as “the bit rate” in the claims, this position would render the claims indefinite because a POSA would not know which value would be used to determine whether “the bit rate” is within a

²¹ Peloton also relies on Claim 14 as purportedly giving meaning to Claim 1. Claim 14 similarly recites “changing the bit rate of the content data,” and the same common sense logic above dictates that a POSA would understand that “the bit rate” refers to the bit rate of content data to be transmitted. Ex. 15, Schonfeld, ¶¶ 63-65.

predetermined correction amount reducing range. Ex. 24, Almeroth-2, ¶¶38-39.

2. “the calculated correction amount” (claims 1, 18, 22, 26, and 30)

NEC’s Proposed Construction	Peloton’s Proposed Construction
Not indefinite: Plain and Ordinary Meaning.	Indefinite under 35 U.S.C. § 112, ¶ 2

a) NEC’s Opening Position

The term “the calculated correction amount” should be given its plain and ordinary meaning. The claim language recites “changing the bit rate based on the calculated correction amount” and recites a process by which it is calculated. *See, e.g.*, Ex. 2, ‘809 Patent at 29:49-63. The specification supports interpreting this term in accordance with its plain and ordinary meaning. *See, e.g.*, Ex. 2, ‘809 Patent, 22:36-67 (describing, consistent with the claim language, the procedure for changing the bit rate based on the calculated correction amount, and explaining that “[t]his enables reduction of fluctuation of the bit rate.”).

Peloton has taken the position that this term is indefinite but has yet to provide a sufficient articulation of its reasoning and has not shown why a POSA would not be able to understand the scope of this term with reasonable certainty. *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S.Ct. 2120, 2124 (2014); *360Heros, Inc. v. GoPro, Inc.*, No. 17-1302-LPS-CJB, 2020 WL 6450499, at *1 (D. Del. May 22, 2020), *report and recommendation adopted*, 2020 WL 6450500 (D. Del. June 12, 2020). NEC reserves the right to address any such arguments in its reply brief, including rebutting any expert testimony or other extrinsic evidence Peloton may rely on.

b) Peloton’s Answering Position

Claims 1, 18, 22, 26, and 30 each specify a “bit rate changing unit” or a “bit rate change request transmission unit” that “chang[es] the bit rate based on ***the calculated correction amount.***” Problematically, these claims contemplate circumstances in which *two* different “correction amounts” are “calculated.” Because it is unclear what “the calculated correction amount” refers to

in such situations, the claims are indefinite for lack of proper antecedent basis.

In each of the claims at issue, the penultimate limitation specifies that the bit rate changing unit “calculat[es], according to a predetermined correction amount calculation procedure, **a correction amount** for correcting the bit rate of the content data transmitted by the server device based on the acquired remaining reproduction time and a preset target value . . .” (hereinafter, “**the Procedure Calculation**”). It also calls for “changing the bit rate based on the calculated correction amount.” However, the ultimate limitation specifies that, under a certain condition, a *second* “correction amount” is “calculated.” Specifically, “when the bit rate is within a predetermined correction amount reducing range,” then “the bit rate changing unit” is further “configured to calculate...**a correction amount** having a smaller magnitude than a magnitude of the correction amount calculated according to the correction amount calculation procedure” (hereinafter, “**the Smaller-Magnitude Calculation**”). Importantly, the Procedure Calculation is performed irrespective of whether the bit rate falls within a reducing range. As a result, in the event that the bit rate **is** within a predetermined correction amount reducing range, it is unclear which of these two “calculated correction amounts” will be utilized for “changing the bit rate.” Ex. 12, Almeroth, ¶¶158–59. *See Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, 512 F.3d 1338, 1343 (Fed. Cir. 2008) (“if two different levers are recited earlier in the claim, the recitation of ‘said lever’ in the same or subsequent claim would be unclear where it is uncertain which of the two levers was intended.”) (quoting MPEP §2173.05(e)); *see also Sensor Elec. Tech., Inc. v. Bolb, Inc.*, No. 18-CV-05194-LHK, 2019 WL 4645338, at *31–32 (N.D. Cal. Sept. 24, 2019) (finding claim indefinite, where “it [wa]s ambiguous whether the claim term ‘the material’ refer[red] to ‘a first layer composed of a material,’ or ‘a second layer composed of a material,’ or both.”).

The above ambiguity does not stem from any inherent limitations of language, *cf. Nautilus*,

572 U.S. at 901, but from a deliberate choice by the applicant about how to draft these claims. For context, whereas claim 1 is directed to a “**delivery system**,” claim 14 is directed to a “**delivery method** applicable to a delivery system,” and recites method steps that largely parallel the limitations of claim 1. In claim 14, the **Procedure Calculation** is only made when the bit rate is **not within** the reducing range and the **Smaller-Magnitude Calculation** is made when the bit rate is **within** the reducing range, thereby avoiding the ambiguity present in the claims mentioned above (i.e., claims 1, 18, 22, 26, and 30). Unlike these apparatus claims, method claim 14 is drafted so as to avoid a situation in which two correction amounts may be calculated. Ex. 12, Almeroth, ¶¶160–61. Claim 14 thus demonstrates that NEC knew how to draft language to avoid an improper dual antecedent basis for “the calculated correction amount,” but did not do so for the apparatus claims.

The Court cannot rewrite the claims to overcome NEC drafting decision. See *Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021) (“it is not our function to rewrite claims to preserve their validity”) (cit. omitted). Here, if a bit rate fell within a predetermined range, a POSA would not know, based on the claims, which of the two “calculated corrected correction amounts”—the Procedure Calculation or the Smaller-Magnitude Calculation—must be applied “for changing the bit rate” to fall within the claim scope. Ex. 12, Almeroth, ¶162. Given the lack of proper antecedent basis for the term, the claims are indefinite.

c) NEC’s Reply

A plain reading of the claim demonstrates what this term refers to, and it is not indefinite.

Claim 1 of the ’809 Patent recites, in relevant part:

... calculating, according to a predetermined correction amount calculation procedure, **a correction amount** ..., and changing the bit rate based on **the calculated correction amount**,

...calculate, **when the bit rate is within** a predetermined correction amount reducing range, **a correction amount having a smaller magnitude** than a

magnitude of the correction amount calculated according to the correction amount calculation procedure.

A POSA would have understood that when “the bit rate is within a predetermined correction amount reducing range,” the bit rate is changed based on the “correction amount having a smaller magnitude.” Ex. 15, Schonfeld, ¶¶ 66-67. On the other hand, when “the bit rate is” not “within a predetermined correction amount reducing range,” the bit rate is changed by the correction amount according to the predetermined correction amount calculation procedure. *Id.* That is, a POSA would have understood that “the calculated correction amount” is the value calculated via the predetermined correction amount calculation procedure, unless the bit rate is within the specified reducing range, in which case “the calculated correction amount” is the value calculated that has a smaller magnitude of correction. *Id.*

Indeed, this understanding is consistent with the purpose of the invention of the ‘809 Patent. Ex. 15, Schonfeld, ¶¶ 68. Namely, and to borrow Peloton’s own words:

[T]o ensure that a target amount of content data is maintained in the storage of a reception device,” and “the delivery system can update the bit rate ... by a correction amount **when the amount of content in storage falls above or below that target**. But in order to avoid fluctuations in the bit rate when transmitting the next segment, the system **constrains the magnitude of the correction amount when then ... bit rate falls within a particular range**.

Supra at 43-44 (emphasis added, citations omitted); Ex. 2, ‘809 Patent, Ex. 12, Almeroth, ¶123; Ex. 16, Almeroth Tr., 190:18-191:16; Ex. 2, ‘809 Patent, 1:42-53; 18:35-41. Peloton’s expert’s opinion is flawed at least because he analyzed only the claim language, without reference to the specification. Ex. 16, Almeroth Tr., 195:5-24; *compare also id.* 194:14-195:3 with *e.g.*, Ex. 2, ‘809 Patent, Abstract.

This is further confirmed by the specification, which explains that “a bit rate is changed based on a sufficiently great correction amount when the bit rate is out of the correction amount

reducing range, the delivery system 100 is able to prevent the remaining reproduction time from becoming excessively small or excessively great.” Ex. 2, ’809 Patent, 22:58-63. Moreover, the specification repeatedly recites that the correction amount having the smaller correction amount is used when the bit rate is within the predetermined correction amount reducing range. *Id.* 15:20-31; 22:44-51; 26:23-28. This confirms that a POSA would readily understand what “the calculated correction amount” refers to when the bit rate is within the predetermined correction amount reducing range. A POSA would understand that the entire last limitation (of calculating a second correction amount) of claim 1 would be meaningless if that correction amount is not the “calculated correction amount” when the bit rate is within the reducing range. “It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous.” *Wasica Fin. GmbH v. Continental Auto. Sys., Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017).²²

d) Peloton’s Sur-Reply

The claims do not specify which of two “calculated correction amount[s]” must be applied when the bit rate falls within the specified “range.” *Supra.* NEC appears to agree; it responds only by rewriting the problematic language various ways to avoid invalidity:

- Inserting the language “when ‘the bit rate is’ not ‘within a predetermined correction amount reducing range,” Reply (emphasis original);
- Construing the term to mean “the value calculated via the predetermined correction amount procedure, **unless** the bit rate is within the specified reducing range, **in which case** [it] is the value calculated that has a smaller magnitude calculation,” *id.*, 12;
- Construing the term as “an amount according to the predetermined correction amount

²² Peloton relies on *Baldwin Graphics Sys., Inc.*, quoting MPEP §2175.05(e) for the premise that incorrect antecedent basis can render a claim indefinite. But both the case and the MPEP are distinguishable. MPEP §2175.05(e) itself clarifies that “[o]bviously, however, the failure to provide explicit antecedent basis for terms does not always render a claim indefinite.” The proper inquiry is whether the “scope of the claim would be reasonably ascertainable by those skilled in the art.” *Id.* Here, there is no problem regarding antecedent basis, and the scope of the claims are reasonably ascertainable by a POSA. Ex. 15, Schonfeld, ¶¶ 66-67.

calculation procedure or a smaller amount when the bit rate is within a predetermined range,” Ex. 15, Schonfeld, ¶ 66,—which still suffers an improper antecedent basis.

Critically, NEC and Schonfeld completely ignore method claim 14 though Schonfeld discusses it elsewhere. *See* Ex. 15, Schonfeld, ¶66. Claim 14 removes any doubt that the qualifying language limiting the “Procedure Calculation” to being performed only “when the bit rate is not within a predetermined correction amount reducing range,” *could have* been used in claim 1 to avoid an antecedent basis issue. The applicant deliberately chose not to, and this Court should not rewrite claims. *Synchronoss Techs. v. Dropbox, Inc.*, 987 F.3d 1358, 1367 (Fed. Cir. 2021).

3. “bit rate changing unit” (claims 1, 2, 8, 13, 18-20, 22-24)

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning not subject to 35 U.S.C. § 112, ¶ 6.	Means-plus-function term governed by 35 U.S.C. § 112, ¶ 6

a) NEC’s Opening Position

Peloton’s attempt to treat “bit rate changing unit” as subject to § 112, ¶ 6 is flawed for the same reasons as noted above for “code rate determining unit” and the “content transmitting unit.” *Supra*, §§ III.A.3-4. Once again, Peloton is unable to overcome the presumption that § 112, ¶ 6 does not apply here. *Diebold*, 899 F.3d at 1298. Here, the surrounding claim language specifies *how* a bit rate is changed, to connote sufficient structure (i.e., “calculating, according to a predetermined correction amount calculation procedure, a correction amount for correcting the bit rate of the content data transmitted by the server device based on the acquired remaining reproduction time and a preset target value so as to approximate the remaining reproduction time to the target value, and changing the bit rate based on the calculated correction amount” and further “being configured to calculate, when the bit rate is within a predetermined correction amount reducing range, a correction amount having a smaller magnitude than a magnitude of the correction

amount calculated according to the correction amount calculation procedure”). *Phillips*, 415 F.3d at 1314.

The modifier “bit rate changing,” particularly in light of the additional claim language that links the term to the “server device” that transmits the content data at one of a plurality of bit rates and further recites the detailed process for changing the bit rate, is more than enough to connote sufficiently definite structure. *See Williamson*, 792 F.3d at 1351; *Triplay, Inc.*, 2016 WL 3574012, at *8 (holding “access block” did not invoke § 112, ¶ 6 because the patent “is articulating how certain hardware and software (i.e., a computer configured in a certain way) is meant to work.”). Moreover, the claim adds even further structural details in a wherein clause that further provides that the bit rate changing unit is “configured to calculate, when the bit rate is within a predetermined correction amount reducing range, a correction amount having a smaller magnitude than a magnitude of the correction amount calculated according to the correction amount calculation procedure.” *Dyfan*, 28 F.4th at 1370 (explaining that § 112, ¶ 6 is not invoked because the wherein clause provided context that “connotes sufficiently definite structure to a person of ordinary skill in the art.”). Moreover, the specification confirms the structure expressly specified in the claim language. *See, e.g.*, Ex. 2, ’809 Patent at Figs 1, 2, and 12.

b) Peloton’s Answering Position

The intrinsic record of the ’809 Patent is similar to that of the ’101 Patent as it relates to the means-plus-function terms. As such, the analysis for the disputed “unit” terms of the ’809 Patent largely mirrors §III.A.3-4 above. For “bit rate changing unit,” the presumption that § 112, ¶6 is inapplicable is thus rebutted for similar reasons as for “code rate determining unit.” §III.A.4.b.

First, “bit rate changing unit” does not connote structure to a POSA. The claims ascribe

two functions to “bit rate changing unit”: (1) “*calculating*” one or two “correction amount[s],” and (2) “*changing* the bit rate based on the calculated correction amount.”^{23, 24} Ex. 2, ’809 Patent, cls. 1, 18, 22. As Dr. Almeroth explains, a POSA would not recognize the term as having a sufficiently definite meaning for the name of a structure, nor would a POSA recognize the term as structure sufficient to perform both functions. Ex. 12, Almeroth, ¶¶163–66.

Second, “unit” is a nonce term, §III.A.3.b, the term “bit rate changing unit” is otherwise drafted in traditional means-plus-function format, and the surrounding claim language lends no structural support (let alone sufficiently definite structural support). Appending “*changing*” before unit simply implies that the function is to change something, and does not designate any particular structure. Ex. 12, Almeroth, ¶165. *See, e.g., Ricoh Co., Ltd. v. Lite-on It Corp.*, No. 04-cv-104, 2005 WL 8161394 (E.D. Tex. June 29, 2005) (§112, ¶6 applied to “first” and “second changing means” terms). Further appending “*bit rate*” simply conveys *what* is to be changed but does not connote any structure to perform the function. Ex. 12, Almeroth, ¶165. *Calculating*, like determining, likewise does not designate any structure. §III.A.4.b, *supra*. The remainder of the claim language is simply a statement of the functions—*i.e.*, calculating correction amounts and changing the bit rate—without connoting any structure to perform either function. While the claims specify that the first calculation is based on the “acquired remaining reproduction time” and a “preset target value,” and that the second calculation is magnitude of correction may be reduced in certain circumstances, Ex. 2, ’809 Patent, cls. 1, 18, 22, none of this language specifies structure for performing either calculation. There are no commonly understood structures to

²³ As discussed in §III.B.2.b, the “the calculated correction amount” lacks proper antecedent basis.

²⁴ The asserted dependent claims ascribe additional functions to the bit rate changing unit (cls. 8, 13, 19, 23, 24). None of these dependent claims connote structure sufficient to perform the functions ascribed to the “bit rate changing unit.” Ex. 12, Almeroth, ¶164, n.4.

perform the claimed functions. Ex. 12, Almeroth, ¶165.

Third, the '809 Patent—like the '101 Patent—uses the words “unit” and “means” interchangeably, in a manner that conveys to a POSA that these words are synonyms within the context of the patent. Ex. 12, Almeroth, ¶¶173. WSOU, 2023 WL 6210607 at *4. “Bit rate changing *means*” is recited in the specification sixty-six times, and “bit rate changing *unit*” is recited in both the claims and specification, ascribing the same pair of functions for both terms, further confirming that the “unit” term is just a means to perform a function. Further, as with the '101 Patent, the initially-filed claim set for the '809 Patent recited “bit rate changing *means*,” but NEC amended certain claims to replace “*means*” with “*unit*,” leaving the surrounding functional language intact, D.I. 83 (Ex. 5) at 843–55, and other claims issued reciting “bit rate changing *means*.” Ex. 2, '809 Patent, cls. 34, 35. Swapping “means” with “unit” without adding structural elements cannot avoid §112, ¶6. *Cypress Lake*, 2018 WL 4035968 at *9; Ex. 12, Almeroth, ¶¶174–75. NEC’s assertion that the claims recite a “detailed process for changing the bit rate” to avoid §112, ¶6, *Supra*, is belied by the fact that the same “detailed process” is ascribed to the “bit rate changing *means*” of claims 34 and 35, which “invoke[s] §112, ¶6.” *Supra*.

Fourth, the '809 specification treats “bit rate changing unit” as a black box that performs the recited functions. The term appears only in Figure 12, as a generic box that is part of the client device or the server device, lacking internal components.²⁵ *Egenera*, 972 F.3d at 1375. Once again,

²⁵ Adding to the confusion, Figures 2 and 11 (relating to other embodiments) show another generic box—“bit rate *correction* unit”—which the specification describes as being “*part of* [the] bit rate changing *means*,” and as “calculat[ing] a correction amount for correcting a bit rate.” Ex. 2, '809 Patent, 5:35–36, 13:12–20. Figures 2 and 11 also show yet another generic box— “*correction amount reducing range determination* unit”—which, according to the specification, is somehow “*part of*” four separate different *means*: the “bit rate changing means, remaining reproduction time receiving means, reception rate receiving means, [and] reproduction speed receiving means.” Ex. 2, '809 Patent, 5:31–35. None of this provides structural clarity to the “bit rate changing unit”; instead, it exacerbates the ambiguity. Ex. 12, Almeroth, ¶171.

the specification discloses inputs, outputs, and a corresponding algorithm for the “bit rate changing unit,” but this imparts neither a specific structure nor class of structures generally understood to a POSA to the claimed term. *MTD Prods.*, 933 F.3d at 1344; Ex. 12, Almeroth, ¶¶169–72.

NEC’s other arguments for this term, including its reliance on *Triplay*, lack merit for the same reasons discussed above in §§III.A.3.b and III.A.4.b.

Corresponding Structure. The corresponding structure for the “bit rate changing unit” is a CPU programmed to carry out the algorithm disclosed in the ’809 Patent at equations (1) to (9), (19), (21), (22), and (24) –(27) (*see* 15:5–9), also disclosed in Figures 7–8, and which can be modified with Equations (28)–(42) (*see* 19:4–21:10). Ex. 12, Almeroth, ¶¶176–78 (explaining the functions ascribed to this term, and features of the algorithm (including equations and flow charts) and how they correspond to those functions).

c) NEC’s Reply

The surrounding claim language describes exactly how the “bit rate changing unit” operates, such that § 112, ¶6 does not apply. Ex. 15, Schonfeld, ¶¶ 70-72; *see also supra* §§ III.A.3-4. *First*, the modifier “bit rate changing” in view of the context of the invention and the claim language connotes sufficient structure to a POSA. Ex. 15, Schonfeld, ¶71. The claims recite language that explains *how* the “bit rate changing unit” operates. For example, the claim language explains that the “bit rate changing unit” changes the bit rate by first calculating “according to a predetermined correction amount calculation procedure, a correction amount for correcting the bit rate of the content data transmitted by the server device based on the acquired remaining reproduction time and a preset target value so as to approximate the remaining reproduction time to the target value, and changing the bit rate based on the calculated correction amount.” Ex. 15, Schonfeld, ¶72. The claim language also explains the “input, output, or connections,” *Oasis*, 2023

WL 8005818, at *14, to the “bit rate changing unit”—namely, the inputs are two variables (acquired remaining reproduction time and a preset target value), and the output is changing the bit rate based on the calculated correction amount, the “plurality of different bit rates” recited in limitation 1[a], which is then sent to the client by the sever. Ex. 15, Schonfeld, ¶72; *M2M Sols.*, 2015 WL 5826816, at *3-5.

Peloton argues the “bit rate changing unit” “appears only in Figure 12, as a generic box that is part of the client device or the server device, lacking internal components.” *Supra* at 57.²⁶ But “[u]nlike in the mechanical arts, a search for traditional ‘physical structure’ in a claim to computer software is not the proper inquiry, because software is not made up of physical structures.” *Oasis*, 2023 WL 8005818, at *13. The claim itself explains what must happen, and how, providing more than sufficient algorithmic structure. Ex. 15, Schonfeld, ¶72. Dependent claims, such as Claims 2, 8, 13, 19, 20, 23-24, further articulate how the bit rate changing unit operates, e.g., structured to “determine the correction amount reducing range based on the acquired reception rate, the acquired remaining reproduction time, and the target value.”

Second, the specification provides additional that a POSA would understand the term to connote sufficiently definite structure. Ex. 15, Schonfeld, ¶73. For example, Claim 22 demonstrates that the “bit rate changing unit” is a “program comprising instructions for causing a server device ... to realize ... [the] bit rate changing unit.” Ex. 2, ’809 Patent, Cl. 22. Moreover, the depiction of the “bit rate changing unit” in Fig. 12 demonstrates that the program may be executed on the sever device or the client device. Ex. 15, Schonfeld, ¶73. Additionally, the

²⁶ Peloton’s proposed structure also limits the claims to only certain examples, to the exclusion of others. On one hand, it includes equations that would render dependent claim 2 superfluous. *Compare, e.g.*, Eq. 8 and Eq. 9 with Cl. 2; Ex. 15, Schonfeld, ¶ 74. On the other hand, it omits other equations, such as Eq. 20 and 23, without explanation. *See, e.g.*, Ex. 1, ’101 Patent, 13:18-65, Fig. 8; Ex. 15, Schonfeld, ¶ 74; *see also* Ex. 16, Almeroth Tr., 203:20-204:9.

specification provides further detailed examples describing the “*how*” set out in the claims. See Ex. 2, ’809 Patent, 5:30-42; 22:27-50; 23:1-24:40; Figs. 2, 6, 7, 11, and 12; Ex. 15, Schonfeld, ¶73. *Third*, Peloton’s arguments attempting to distinguish *Triplay* are flawed for the same reasons as described above for “content transmitting unit.” *Finally*, this is “not a circumstance like that in *Williamson*, for example, where the claim said *nothing* about *how*” the recited element performed the recited functions. See *Oasis*, 2023 WL 8005818, at *16.

d) Peloton’s Sur-Reply

(see §III.A.3.d)

4. “bit rate change request transmission unit” (claims 26, 27, 30, 31)

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning not subject to 35 U.S.C. § 112, ¶ 6.	Means-plus-function term governed by 35 U.S.C. § 112, ¶ 6

a) NEC’s Opening Position

Here again, Peloton is not able to overcome the presumption that § 112, ¶ 6 does not apply for the same reasons as explained for the other terms. *Supra*, §§ III.A.3-4, III.B.3; *Diebold*, 899 F.3d at 1298. Unlike “the bit rate changing unit” term, *supra*, §§ III.B.3, the “bit rate change request transmission unit” here is located on the “client device” and therefore is unable to change the bit rate without making a *request* to the server, but the surrounding words recite similar limitations that provide sufficient structure for the same reasons. Ex. 2, ’809 Patent at Cl. 26, Fig. 11. In particular, the surrounding claim language of the “bit rate change request transmission unit” recites “transmitting, to the server device, *a bit rate change request for changing the bit rate* based on the calculated correction amount,” and further recites how that is accomplished. Ex. 2, ’809 Patent at Cl. 26. The context of this client-server network architecture alone demonstrates sufficiently definite structure because, in the context of the claim (*i.e.*, on a client device), the

words describe an “operable connection” between the client device and the server device by describing the terms of operation such as its connection (*i.e.*, to the client device and server device) and its output (*i.e.*, a bit rate changing request to the server). *Triplay*, 2016 WL 3574012, at *3 (“A claim term relating to such an invention may also have sufficient structure where there is a description of the term’s operation, such as its input, output, or connections.”); *Phillips*, 415 F.3d at 1314.

Moreover, the “bit rate change request transmission unit” term also has sufficiently definite structure for the same reasons as described with reference to the “bit rate changing unit.” That is, the surrounding words explain *how* the bit rate changing request is determined (in the same way that the term bit rate changing unit describes how the bit rate is changed when the claim is not directed to an implementation on the client device). *Triplay, Inc.*, 2016 WL 3574012, at *8 (finding “access block” did not invoke 112(6) because the patent “is articulating how certain hardware and software (*i.e.*, a computer configured in a certain way) is meant to work.”). The specification again confirms the structure specified in the claims. *See, e.g.*, Ex. 2, ’809 Patent at Fig. 11.

b) Peloton’s Answering Position

The term “bit rate change *request transmission* unit” is analogous the term “bit rate changing unit” but resides in a “client device” rather than a “server device.” Ex. 12, Almeroth, ¶179; cls. 26, 30. The means-plus-function analysis for both terms are thus largely the same, and the presumption against §112, ¶6 is rebutted for similar reasons. §III.B.3.b.

“Bit rate change request transmission unit” does not connote structure to a POSA, and the claims ascribe two functions to the term: (1) “*calculating*” one or two “correction amount[s],” and (2) “*transmit[ting]* a bit rate change request” to the server device.” Ex. 2, ’809 Patent, cls. 26, 30.

A POSA would not recognize the term as having a sufficiently definite meaning for the name of a structure, let alone as structure sufficient to perform both functions. Ex. 12, Almeroth, ¶¶180–82. The term is otherwise drafted in traditional means-plus-function format, and the surrounding claim fails to impart sufficient structural support for performing the claimed functions—*e.g.*, a “transmission unit” would not have been understood as performing the function of “calculat[ing],” as ascribed to the term. *Id.*, ¶¶183–84. The ’809 Patent’s synonymous usage of “unit” and “means” (§ III.B.3.b, *supra*) further confirms that “bit rate change request transmission unit” is subject to § 112, ¶6. *WSOU*, 2023 WL 6210607, at *4. For example, the specification recites “bit rate change request transmission *means*” for performing the same functions ascribed to the claimed “unit” term. This claim term likewise stems from amendments during prosecution, wherein the term “bit rate change request transmission *means*” was changed to a “unit,” but the functional descriptions were left intact, D.I. 83 (Ex. 5) at 843–55, and another claim issued reciting the “bit rate change request transmission *means*” variant. Ex. 2, ’809 Patent, cl. 36. The ’809 specification treats the term as purely functional rather than structural.²⁷ Ex. 12, Almeroth, ¶¶185–90. NEC asserts that the “client-server network” context provides “an ‘operable connection’” for the “bit rate change request transmission unit,” *Supra*, but such input and output connections, and even a corresponding algorithm, do not impart to the term a specific structure / class of structures generally understood to a POSA. Ex. 12, Almeroth, ¶¶187–88.

As before, all of this confirms § 112, ¶6 applicability for the term. NEC’s other arguments

²⁷ Though the specification does not refer to a “bit rate change request transmission unit,” it teaches that the analogous “bit rate change request transmission *means*” is itself made up of three components: “correction amount reducing range determination unit 27,” “bit rate correction unit 28,” and “bit rate change request transmitter 29.” Ex. 2, 809 Patent, 21:32–36. But each of these components is depicted simply as a functionally-defined black-box. *Id.*, Fig. 11. Thus collectively, they do not connote structure to the disputed “unit” term. Ex. 12, Almeroth, ¶¶186–87.

for this term, including its reliance on *Triplay*, lack merit for the same reasons discussed above in §§III.A.3.b, III.A.4.b, and III.B.3.b.

Corresponding structure. The corresponding structure for the “bit rate change request transmission unit” is a CPU programmed to carry out the same algorithm in the ’809 Patent disclosed above for “bit rate changing unit,” along with 21:57–62. Ex. 12, Almeroth, ¶¶191–93.

c) NEC’s Reply

The surrounding claim language describes how the “bit rate changing unit” operates, including its inputs, outputs, and connections, and thus connotes sufficient structure to a POSA. Ex. 15, Schonfeld, ¶¶76-79; *see also supra* §§ III.A.3-4, III.B.3. First, Peloton acknowledges the similarities between this term and “bit rate changing unit.” Claims 26 and 30 are directed to the client device, which is why this element transmits a bit rate “change request” instead of being able to simply “change the bit rate.” That is, a POSA would recognize that a bit rate change request is transmitted to the server device to instruct the server to change the bit rate of the content data that it will transmit—which informs a POSA regarding the structure. Ex. 15, Schonfeld, ¶78. Peloton concedes a POSA would understand what connotes structure for a “transmission unit.” For the same reason, the claim language “*transmitting, to the server device, a bit rate change request for changing the bit rate based on the calculated correction amount*” connotes additional structure because it informs a POSA exactly *what* is being transmitted. Resp. Br. at 23; Schonfeld, ¶78.

Additional claim language further explains *how* the bit rate change request is determined before it is transmitted in the same manner as for the “bit rate changing unit,” thereby enumerating the “input, output, or connections” of the “bit rate change request transmission unit.” *Oasis*, 2023 WL 8005818, at *14. Thus, the claim provides more than sufficient algorithmic structure for the same reasons as described above. Ex. 15, Schonfeld, ¶78. Dependent claims, such as claims 27

and 31, further articulate how the bit rate change request transmission unit operates, for example, requiring it to be structured to “determine the correction amount reducing range based on the acquired reception rate, the acquired remaining reproduction time, and the target value.”

Second, other claims and the specification further confirms that the term connotes sufficiently definite structure to a POSA. For example, Claim 30 demonstrates that the “bit rate change request transmission unit” is a “program comprising instructions for causing *a client device* ... to realize ... [the] bit rate change request transmission unit.” Ex. 2, ’809 Patent, Cl. 30. The specification explains that the bit rate change request transmission unit may be formed by “the correction amount reducing range determination unit 27, the bit rate correction unit 28, and the bit rate change request transmitter 29,” depicted in Fig. 11 and describes these elements in embodiments throughout the specification that provide further details of the *how* recited in the claims. Ex. 2, ’809 Patent, 21:32-36; *See also id.*, 21:46-67; 27:8-36; 27:60-28:23; Figs. 2 and 11; Ex. 15, Schonfeld, ¶79. Moreover, Peloton ignores the fact that the specification expressly states that “the bit rate change request transmitter 29 may be configured to transmit a bit rate change request ... according to a protocol *other* than RTCP.” Ex. 2, ’809, 21:63-67; *cf. Supra* at 63 (identifying algorithm at 21:57-62) *and* Ex. 16, Almeroth Tr., 206:17-22; Ex. 15, Schonfeld, ¶80. Accordingly, a POSA would understand the claim sufficiently identifies the operation of the term, including its relationship to other elements, such that it connotes sufficient structure. *See Oasis*, 2023 WL 8005818, at *15. *Third*, Peloton’s arguments attempting to distinguish *Triplay* are flawed for the same reasons as described above with respect to the “content transmitting unit.”

d) Peloton’s Sur-Reply

(*See* §III.A.3.d)

5. “remaining reproduction time acquisition unit” (claims 1, 26, 30)

NEC’s Proposed Construction	Peloton’s Proposed Construction
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Plain and Ordinary Meaning not subject to 35 U.S.C. § 112, ¶ 6.	Means-plus-function term governed by 35 U.S.C. § 112, ¶ 6
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a) NEC's Opening Position

Once more, Peloton's § 112, ¶ 6 argument should here be rejected, for similar reasons. *Supra*, §§ III.A.3-4, III.B.3-4. The recited "code rate determining unit" does not recite the word "means," meaning there is presumption that § 112, ¶ 6 does not apply. *Diebold*, 899 F.3d at 1298. And, again, when the claim limitation language is properly read as whole, a POSA would understand "remaining reproduction time acquisition unit" and the remaining claim language that specifies how a remaining reproduction time "that is a period of time during which the content can be reproduced" is acquired (i.e., "based on a portion of the data stored in the storage device of the client device that has not been reproduced") to connote sufficient structure. Peloton thus cannot overcome the presumption against § 112, ¶ 6. *Phillips*, 415 F.3d at 1314; *Dyfan*, 28 F.4th at 1366.

For example, Claim 1 recites "a remaining reproduction time acquisition unit for acquiring remaining reproduction time that is a period of time during which the content can be reproduced based on a portion of the data stored in the storage device of the client device that has not been reproduced." Claims 26 and 30 also recite that the "remaining reproduction time acquisition unit" is part of the client device and as a computer program "for causing a client device ... to realize," respectively. Ex. 2, '809 Patent at Cls. 26, 30. Accordingly, the "remaining reproduction time acquisition unit" is recited with more than sufficient structure. *Williamson*, 792 F.3d at 1351; *Triplay, Inc.*, 2016 WL 3574012, at *8 (finding "access block" did not invoke 112(6) because the patent "is articulating how certain hardware and software (i.e., a computer configured in a certain way) is meant to work."). Additionally, the specification confirms the structure expressly specified in the claim language. *See, e.g.*, Ex. 2, '809 Patent at Figs. 2, 11, and 16.

b) Peloton's Answering Position

For “remaining reproduction time acquisition unit,” the presumption against § 112, ¶6 is rebutted for similar reasons as for the other disputed “unit” terms. §§ III.A.3.b, III.A.4.b, III.B.3.b, III.B.4.b.

First, the term “remaining reproduction time acquisition unit” does not connote structure to a POSA. The claims ascribe to the term the function of the “acquiring remaining reproduction time.” Ex. 2, ’809 Patent, cls. 1, 26, 30. There are no commonly understood structures in the art for performing the claimed function. Thus, the term does not have a sufficiently definite meaning as the name for structure. Ex. 12, Almeroth, ¶¶194–96.

Second, “unit” is a nonce word, the term is otherwise structured in traditional means-plus-function format, and the surrounding language lends no structural support. Appending “remaining reproduction time acquisition” before “unit” simply describes the “acquiring” function but does not designate any particular structure. The claims specify that the remaining reproduction time is calculated based on “data stored in the storage device,” Ex. 2, ’809, cls. 1, 26, 30, but this language does not specify structure for performing the acquiring function. At most, it simply clarifies the structure in which data is stored (i.e., storage device). Ex. 12, Almeroth, ¶¶196–97.

Again, ’809 Patent specification recites “remaining reproduction time acquisition *means*” for performing the same functions ascribed to the claimed “unit” term, *e.g.*, Ex. 2, ’809 Patent, 3:35–42, and even equates these two terms explicitly. *Id.*, 5:46–47. Further, this claim term likewise stems from amendments during prosecution, wherein “remaining reproduction time acquisition *means*” was changed to a “unit,” but the functional descriptions were left intact, D.I. 83 (Ex. 5) at 843–54, and another claim issued reciting the “bit rate change request transmission *means*” variant. Ex. 2, ’809 Patent, cls. 34–35. Ex. 12, Almeroth, ¶¶200–202. As before, swapping “means” with “unit” without adding structural elements cannot avoid § 112, ¶6. *Cypress Lake*, 2018

WL 4035968 at *9.

The specification also treats the term as a black box for performing the recited function. The “remaining reproduction time acquisition unit” appears in Figures 2, 11, and 12, as a generic box that is part of the client device or the server device, lacking internal components. Inputs, outputs, and a corresponding algorithm are disclosed for the claimed term, but this fails to impart to the term a specific structure or class of structures generally understood to a POSA. *MTD Prods.*, 933 F.3d at 1344; Ex. 12, Almeroth, ¶¶198–99.

NEC’s other arguments for this term, including its reliance on *Triplay*, lack merit for the same reasons discussed for the other “unit” terms. §§ III.A.3.b, III.A.4.b, III.B.3.b, III.B.4.b.

Corresponding Structure. The corresponding structure for the “remaining reproduction time acquisition unit” is a general purpose computer or microprocessor programmed to carry out the algorithm disclosed in the Ex. 2, ’809 Patent, 6:46–7:5. Ex. 12, Almeroth, ¶¶203–205.

c) NEC’s Reply

The surrounding claim language describes how the “remaining reproduction time acquisition unit” operates, and thus connotes sufficient structure to a POSA. Ex. 15, Schonfeld, ¶83-84; *see also supra* §§ III.A.3-4, III.B.3-4. *First*, as explained above, the claim language recites how the recited function is to be implemented and expressly recites structural connections. The surrounding language explains *how* its operation is to be carried out. The modifier “remaining reproduction time acquisition” in view of the context of the specification and the claim language connotes sufficient structure to a POSA. Ex. 15, Schonfeld, ¶83. The claim language explains that the “remaining reproduction time acquisition unit” acquires a “remaining reproduction time that is a period of time during which the content can be reproduced based on a portion of the data stored in the storage device of the client device that has not been reproduced.” *Id.* The claim language

also specifies the inputs are two variables (the portion of the data stored in the storage device of the client device that has not been reproduced), and the output is a remaining reproduction time that is a period of time during which the content can be reproduced, which is one the “content data” recited in limitation 1[a] transmitted by the server device. *Id.*; *M2M Sols.*, 2015 WL 5826816, at *3-5. Peloton argues that the “remaining reproduction time acquisition unit” is depicted in the figures as “lacking internal components.” *Supra* at 67. But Peloton again urges application of the wrong test; software is not made up of physical structures. *Oasis*, 2023 WL 8005818, at *13.

Second, the specification further confirms that the term connotes sufficiently definite structure to a POSA. Ex. 15, Schonfeld, ¶84. For example, Claim 30 demonstrates that the “remaining reproduction time acquisition unit” is a “program comprising instructions for causing *a client device* ... to realize ... [the] remaining reproduction time acquisition unit.” Ex. 2, ’809 Patent, Cl. 30. Moreover, the depiction of the “remaining reproduction time acquisition unit” in Figs. 2, 11, and 12 demonstrate that the program may be executed on the server device or the client device. Additionally, the specification provides detailed examples in exemplary embodiments that further describe the *how* set out in the claims—including even providing exemplary formulas that may be applied and further articulating how the remaining reproduction time acquisition unit interacts with other parts of the system. *See* Ex. 2, ’809 Patent, 5:43-51; 6:25-7:16; 8:35-44; 15:55-64; 21:26-46; and 22:27-36. A POSA viewing the claim language, in light of the specification, would have no doubt that the term sufficiently identifies the claim language’s operation, including its relationship to other elements, such that it connotes sufficient structure and is not limited to one of the exemplary embodiment of the specification as Peloton’s proposed construction attempts to do. *Oasis*, 2023 WL 8005818, at *15; Ex. 15, Schonfeld, ¶84. *Third*, Peloton’s arguments

attempting to distinguish *Triplay* are flawed for the same reasons as described above with respect to the “content transmitting unit.”

d) Peloton’s Sur-Reply

(See §III.A.3.d)

C. The ’427 Patent

1. “sub content/sub content data”

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning <i>Alternatively:</i> content in addition to the main content / content data in addition to the main content data	advertisement / advertisement data

a) NEC’s Opening Position

The ’427 Patent claims recite that “sub content” and “sub content data” are content and data which are in addition to the main content. *See, e.g.*, Ex. 3, ’427 Patent at 36:65-67 (“a memory for storing sub content data representing sub content and main content data representing main content”). The plain language should end the inquiry. *Phillips*, 415 F.3d at 1314 (“the context in which a term is used in the asserted claim can be highly instructive”). Peloton has not contended that the terms are not common or well understood, nor does it propose a construction that is meant to clarify any technical terms of art. Rather, Peloton again attempts to use claim construction to limit the plain language of the claims to an embodiment in the specification, namely, “advertisement” and “advertisement data.” *See, e.g.*, Ex. 3, ’427 Patent at 4:50-20:18 (describing a first “exemplary” embodiment of the invention).

In fact, limiting “sub content” and “sub content data” to advertisement and advertisement data as Peloton proposes would be in direct conflict with the claims. While independent claims 1, 14, 18, 20, 22, 32, and 34-36—the claims at issue for this term—recite “sub content,” dependent claim 9 specifies that “advertisement” content is a *species* of the broader “sub content” genus. For

example, claim 9 of the '427 Patent specifically recites that “the sub content is advertisement content.” Thus, the doctrine of claim differentiation dictates that Peloton’s proposed construction is presumptively wrong. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (“dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim”). Claim 9 confirms that when the inventors intended to further limit sub content to advertisement content, they knew how to do so, and did so explicitly. Moreover, because Claim 9 is *only* directed to claiming advertisement content, the presumption that the “sub content” of claim 1 is broader than the “advertisement content” of claim 9 is “especially strong.” *See Sunrace Roots Entmt. Co. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003) (“presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and a dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim”).

That the specification recites an embodiment where sub content data is advertisement data does not compel limiting the definition of the plainly broader “sub content” of the independent claims. *See Phillips*, 415 F.3d 1323 (“we have repeatedly warned against confining the claims to those embodiments”). This is true even where a specification discloses a single embodiment, “unless the patentee has demonstrated a *clear intention to limit the claim scope* using ‘words or expressions of manifest exclusion or restriction.’” *Liebel-Flarsheim*, 358 F.3d at 906 (citation omitted) (emphasis added). There is no evidence of a “clear intent” to limit the claim scope here. Instead, the record shows a clear intent for “sub content” and “advertisement” to have *different* scopes, for “sub content” to be broader, and for the claims to therefore not be limited to the exemplary embodiment.

Further, the prosecution history confirms that the inventors intended for the term “sub content” to cover more than advertisements. More specifically, the patentee submitted a preliminary amendment by which the only remaining instance of “advertisement content” remained in a dependent claim, specifying that the advertisement content was a type of sub content. See D.I. 84 at 173-289. Such an amendment clearly envisions that the terms “sub content” and “sub content data” were intended to be *different* from advertisement data—particularly in view of Claim 9 that recites “advertisement content” as a type of “sub content.” See *Sysmex Corp v. Beckman Coulter, Inc.*, No. 19-1642-JFB-CJB, 2022 WL 1786526, at *8 (D. Del. May 26, 2022) (crediting patentee’s use of different language throughout claims as indicating intent to apply different meanings).

Peloton’s proposed construction is also once again belied by its IPR petitions. In its arguments to the PTAB regarding the ’427 Patent in two separate IPR petitions, in addition to failing to propose a construction for the terms “sub content” or “sub content data”—let alone one limiting them to advertisements alone—Peloton relies on a prior art reference that is not limited to advertisements. See D.I. 86 (Ex. 8) at 122-127; *see also* D.I. 86 (Ex. 9) at 237-242. In both petitions for the ’427 Patent, Peloton relies upon a single reference, U.S. Patent Publication No. 2009/0094321 (Ex. 10, “Ueda”) as allegedly disclosing “sub content,” in the form of “commercial content.” See D.I. 86 at 26 and D.I. 86 at 128 (discussing a “database for storing commercial content” in Ueda). However, Ueda itself defines “commercial content” as *a type of sub content*. See D.I. 86 at 384 (“[T]he content editing facility 710 employs a disc stored content and sub content as encrypted contents such as a commercial content or the like.”). And Ueda describes the term “sub content” as more than commercial content, referring to “Java application program, game program, image file, audio data, text data and so forth.” D.I. 86 at 366. Peloton can offer no

justification for a narrowing construction of the term “sub content” when the alleged prior art upon which it relies reveals that the term should not be limited only to advertising content—especially where it did *not* propose such a narrow construction in its IPR petitions. *See* 37 C.F.R. § 423.100; *see M2m Solutions LLC v. Sierra Wireless America*, No. 12-1101-RGA, 2020 WL 7767639, at *5 (D. Del. Dec. 4, 2020) (37 C.F.R. § 42.100(b) “was intended to eliminate issues stemming from the application of different claim construction standards in each tribunal”). Thus, Peloton’s proposed construction here should be rejected.

b) Peloton’s Answering Position

Peloton’s proposal for “sub content”/ “sub content data” as “advertisement” / “advertisement data” reflects what a POSA would have understood the term to mean as used in the ’427 Patent. Ex. 12, Almeroth, ¶¶212–18. NEC’s suggestion of “plain and ordinary meaning” ignores the teachings of the patent and advocates for a construction that is broader than the scope of the invention. “While the lay meaning of [“sub content”/“sub content data”] standing alone may be broader than [“advertisement” / “advertisement data,”] [this Court is] not construing this term standing alone.” *Netcraft Corp. v. eBay, Inc.*, 549 F.3d 1394, 1397 (Fed. Cir. 2008). “Properly viewed, the “ordinary meaning” of a claim term is its meaning to the ordinary artisan after reading the entire patent.” *Phillips*, 415 F.3d at 1321. NEC’s construction begins—and *ends*—with the claim language, and should be rejected.

The invention is directed to advertisements. The specification of the ’427 Patent makes unmistakably clear that the invention concerns advertisements. Ex. 12, Almeroth, ¶¶213–15. Notably, the term “sub content” or “sub content data” *never appears once outside of the claims.*²⁸

²⁸ NEC misleadingly attempts to characterize its arguments as having support in the specification by citing language appearing in claim 1 as appearing at “36:65–67.” *Supra*. “Sub content” appears in the claim language and the claim language alone.

The *only* content that is referenced beyond “main content” in the ’427 Patent is advertisement content, which appears 433 times throughout the specification. Moreover, the specification does not simply “recite[] an embodiment where sub content data is advertisement data,” *Supra*—the **invention** as a whole is directed to advertisements. “When a patent . . . describes the features of the ‘present invention’ as a whole, this description limits the scope of the invention.” *Verizon Servs.*, 503 F.3d at 1308. The specification repeatedly states that the “present invention” is directed to advertisements. In each of the seven instances where the “content” beyond the main content of the “present invention” is described, the patent specifies such content is “advertisement content.”²⁹ See *Netcraft*, 549 F.3d at 1398 (“[T]he common specification’s repeated use of the phrase ‘the present invention’ describes the invention as a whole.”).

Contrary to NEC’s assertions, “these statements are not limited to a best mode or particular embodiments.” *Mosaic Brands*, 55 F.4th at 1361–62. Nowhere does the patent describe any other sort of “sub content”—nor could it, given that the phrase “sub content” is never used in the specification. These “present invention” statements apply to the invention as a whole and thus “limit[] the scope of the invention.” *Verizon Servs.*, 503 F.3d at 1308.

All embodiments are directed to advertisement content. The “specification, including the Abstract, consistently describes the invention in terms of [advertisements].” *Netcraft*, 549 F.3d at 1399. The **Summary of the Invention** repeatedly discusses the “present invention” as relating to advertisements. The **Abstract** explains that the “AP system . . . selects *advertisement content* based on advertisement selection information.” Ex. 3, ’497 Patent, Abstract (emphasis added). The

²⁹ See Ex. 3, ’427 Patent, 1:48–52 (“ . . . advertisement content selected according to the user.”), 1:53–2:11 (“ . . . selected advertisement content data . . .”), 2:12–46 (same), 2:47–67 (same), 3:1–19 (same), 3:20–36 (same), 3:37–39 (“ . . . advertisement content selected according to the user.”).

term “sub content” *never once* appears in the specification; the patent discusses the invention only with respect to advertisements. The Federal Circuit addressed a similar situation in *Netcraft*, where it limited “communications link” to “internet access” because the Summary of the Invention and the Abstract repeatedly characterized the invention as requiring “internet access.” *Netcraft*, 549 F.3d at 1397–98. The same result is warranted here.

The '427 Patent also *only* describes “advertisement” content when discussing ***each and every embodiment***. See Ex. 12, Almeroth, ¶216. NEC claims that Peloton attempts to limit the claims to an embodiment in the specification. See *Supra* (citing 4:50–20:18 as “describing a first ‘exemplary’ embodiment of the invention”). But “advertisement” content is not merely the focus of an “exemplary” embodiment—it is the focus of ***every*** embodiment of the invention.³⁰ Because “[t]he specification consistently describes” its embodiments as being directed to “advertisement content,” a POSA would understand that the invention itself is directed to “advertisement content.” *Black & Decker, Inc. v. Robert Bosch Tool Corp.*, 260 F. App’x 284, 289 (Fed. Cir. 2008); see also *Respironics, Inc. v. Invacare Corp.*, 303 F. App’x 865, 871 (Fed. Cir. 2008) (limiting term based on specification where description was “not merely a preferred embodiment . . . [but] the patents’ only embodiment”).

NEC should not be allowed to assert ownership over any “content in addition to the main content” where the specification clearly does not support such a broad claim. “Although claims need not be limited to the preferred embodiment when the invention is more broadly described,

³⁰ See Ex. 3, '427 Patent, 4:50–20:18 (describing First Embodiment relating to “advertisement content,” as admitted by NEC), 20:22–21:9 (describing First Modification of the First Embodiment as relating to same), 21:13–22:8 (describing Second Modification of the First Embodiment as relating to same), 22:12–25:37 (describing Second Embodiment as relating to same), 25:41–27:67 (describing Third Embodiment as relating to same), 28:3–31:4 (describing Fourth Embodiment as relating to same).

‘neither do the claims enlarge what is patented beyond what the inventor has described as the invention.’” *Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc.*, 450 F.3d 1350, 1355 (Fed. Cir. 2006) (quoting *Netword, LLC v. Centraal Corp.*, 242 F.3d 1347, 1352 (Fed.Cir.2001)).

NEC’s claim differentiation argument is meritless. NEC relies primarily³¹ on the doctrine of claim differentiation to rebut Peloton’s proposed construction. *Supra*. This argument is flawed. Even assuming *arguendo* that claim 9 identifies any redundancies with claim 1, the Federal Circuit has repeatedly emphasized that “the doctrine of claim differentiation cannot broaden claims beyond their correct scope, determined in light of the specification and the prosecution history.” *Multiform Desiccants, Inc. v. Medzam Ltd.*, 133 F.3d 1473, 1480 (Fed. Cir. 1998). “The doctrine of claim differentiation is not a hard and fast rule, and does not serve to broaden claims beyond their meaning in light of the specification.” *Campbell Soup Co. v. Gamon Plus, Inc.*, No. 2020-2322, 2021 WL 3671366, at *5 (Fed. Cir. Aug. 19, 2021) (cleaned up).

c) NEC’s Reply

Peloton’s proposed construction is inconsistent with all pertinent evidence and case law. First, Peloton’s reliance upon *Netcraft Corp. v. eBay, Inc.* is misplaced. 549 F.3d 1394, 1398 (Fed. Cir. 2008). Unlike in *Netcraft*, Peloton does not point to a *single* instance in which the ’427 Patent describes advertisements solely as “the present invention.” The ’427 Patent consistently refers to advertisements as an “embodiment.” See, e.g., Ex. 3, ’427 Patent, 18:39-42; 4:50-53. The patent goes on to describe at least four different *embodiments* illustrating that it intended advertisements to be an exemplary type of sub content. See, e.g., *id.* at 4:55; 22:10; 25:39; 25:1. To the extent that

³¹ NEC also argues without merit Peloton’s construction is contrary to positions taken in its co-pending IPRs. The reference cited by NEC—U.S. Patent Publication No. 2009/0094321 (“Ueda”)—discloses the transmission of “commercial (i.e., advertisement) content.” Ex. 10, ¶ [0010]. The fact that an unrelated patent publication also discloses transmitting other types of content has no bearing on the construction of this claim term.

the term “the present invention” is used, it is used *in relation to* particular “aspects” or “embodiments,” illustrating that the described elements are only exemplary. *See, e.g.*, 1:53-55; 4:30-32; 4:50-53; 20:21-22; 21:13-15; 22:12-14. This is supported by the file history, during which the claims were explicitly amended to recite “sub content,” rather than “advertisement content,” which a POSA would interpret as showing a clear indication that the claims cover something different from advertisements. *See* D.I. 84 at 173-89; Ex. 17, Turnbull Dec. (“Turnbull”), ¶31.

Second, Peloton also dismissed NEC’s argument that the term “sub content” is given a broader meaning in the Ueda reference, U.S. Patent Pub. No. 2009/0094321 (“Ueda”), than Peloton proposes here. *See Supra* at 75. But the plain and ordinary meaning of the term “sub content,” as noted by Peloton, is “its meaning to the ordinary artisan after reading the entire patent.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1321 (Fed. Cir. 2005). As such, materials that show what a POSA, at the time of the invention of the ‘427 Patent, would have understood “sub content” to encompass can be especially relevant to claim construction. *See Vitronics*, 90 F.3d at 1585.

Peloton relies on Ueda in its IPR Petitions, which defines “sub content” more broadly than “advertisements.” D.I. 86 at 366. Given the knowledge of a POSA at the time of invention of the ‘427 Patent, the term “sub content” would have been understood to encompass more than advertisements. Ex. 17, Turnbull, ¶¶29, 33. Furthermore, from a functional perspective, there is no significant difference between the provision of “advertisement” and “sub content.” *Id.* ¶¶31-32. The two do not require different technological implementations, and a POSA implementing the invention would understand how “sub content” that is not strictly an “advertisement” can be implemented. NEC’s proposal should be adopted.

d) Peloton's Sur-Reply

Neither NEC nor Dr. Turnbull provide any reason to depart from the '427 Patent specification, as their construction requires. *See* Ex. 24, Almeroth-2, ¶¶41–42. Turnbull concedes that “sub content” never appears in the specification. Ex. 22, Turnbull Tr., 15:16–22. Absent any explicit support for NEC's position, Turnbull opines that “sub content” would be understood simply based on undisclosed “context” in the '427 Patent. Ex. 17, Turnbull, ¶28. When questioned, Turnbull explained this “context” only as the '427 Patent's repeated use of the word “content,” without any explanation as to why a POSA would understand such “content” to refer to “sub content,” Ex. 22, Turnbull Tr., 16:1–17:2, as opposed to “main content” or “advertisement content,” which are actually described throughout the specification. Such “conclusory, unsupported assertions . . . as to the definition of [the] claim term are not useful.” *Aristocrat Techs.*, 709 F.3d at 1361.

NEC asserts “Peloton does not point to a single instance in which the '427 Patent describes advertisements solely as ‘the present invention,’” rather than just as an “embodiment.” Reply. That is incorrect. Although *all* of the embodiments refer to the use of advertisement content, the patent *also* repeatedly describes “the present invention” as utilizing advertisement content. *See Supra*, n.29 (listing '427 Patent citations of “present invention”). NEC ignores these passages.³² NEC also appears to argue that *Netcraft* is not applicable because there are *other* instances where the '427 Patent describes “embodiment[s] of the present invention.” But this does not negate the many explicit descriptions of “the present invention,” which NEC ignores. The *Netcraft* patent similarly

³² NEC addresses *one* passage cited by Peloton, which it dismisses as only an embodiment because the '427 Patent refers to an “aspect” of the present invention. Even setting aside that NEC ignores Peloton's other cited passages, the Federal Circuit has rejected similar arguments. *See Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 n.8 (Fed. Cir. 2007).

included statements describing embodiments “according to the present invention,” which had no bearing on the Court’s analysis. *See* Ex. 23, 4:40–41.

NEC’s arguments regarding the third-party Ueda reference and the prosecution history are similarly unavailing. “[R]eliance on [prior art] is unnecessary, and indeed improper, when the disputed terms can be understood from a careful reading of the public record.” *Vitronics*, 90 F.3d at 1584. The ’427 Patent makes clear that the invention itself relates to advertisement content. NEC’s appeals to the file history are also inapposite, as “any ambiguity [between the prosecution history and the specification] must be resolved in favor of the specification.” *Lydall Thermal/Acoustical, Inc. v. Fed.-Mogul Corp.*, 344 F.App’x 607, 614 (Fed. Cir. 2009). Such arguments cannot trump the specification’s clear statements as to the “present invention.” *Id.*

2. “sub content . . . is inserted in main content”

NEC’s Proposed Construction	Peloton’s Proposed Construction
Plain and Ordinary Meaning	Sub content . . . is placed in between main content

a) NEC’s Opening Position

The plain language of the claims is clear: the claims recite simply that sub content is inserted in main content. No additional definition is needed in view of the straightforward claim language. The specification is consistent, describing sub content being “inserted in” main content throughout. Accordingly, no further construction is necessary.

Peloton seeks to add the requirements that sub content be placed “in between” main content, which at best adds ambiguity, and at worst reads in limitations required nowhere in the patent. It is unclear what it means for sub content to be “in between” main content. For example, does it mean that the sub content must interrupt certain segments of the main content?

There is no support for Peloton’s attempt to rewrite the language chosen by the inventors. The claims do not recite placing content “in between” main content. The specification does not

even mention the word “between” with respect to the relationship between main content and sub content. In fact, the only time “between” is mentioned throughout is with respect to *connections* between various components (*e.g.* user device, application service system, user equipment, “a plurality of devices”). *See, e.g.*, Ex. 3, ‘427 Patent at 1:56-61; 3:6-7; 3:26-27; 5:35-39; 5:42-48; 6:67-7:2; 7:56-58; 8:51-54; 8:59-63; 12:17-23; 15:31-35; 15:53-56; 16:1-3.

This term should therefore be afforded its plain and ordinary meaning.

b) Peloton’s Answering Position

According to NEC, “[t]he plain language of the claims is clear.” *Supra*, 77. But NEC’s own argument shows that there is a clear dispute as to the plain and ordinary meaning of “sub content . . . is placed in between main content.” “When the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.” *O2 Micro*, 521 F.3d at 1362. The Court here should similarly resolve this question of law to avoid “improperly delegat[ing] to the jury the task of determining claim scope.” *Eon Corp. IP Holdings v. Silver Spring Networks*, 815 F.3d 1314, 1318 (Fed. Cir. 2016).

NEC notably fails to articulate what that plain meaning is. A disputed claim term cannot “be construed simply by reference, without explanation, to the ‘plain and ordinary meaning.’” *Baxter Healthcare Corp. v. Mylan Lab’ys Ltd.*, 346 F. Supp. 3d 643, 653 (D.N.J. 2016). But this is exactly what NEC does. According to NEC, the “plain and ordinary meaning” of “sub content . . . is inserted in main content” is, circularly: “sub content is inserted in main content.” *Supra*. This offer[s] little in terms of facilitating a resolution to the parties’ dispute. *Id.*

Indeed, NEC itself raises questions as to how the term should be interpreted. *Id.* (questioning whether “sub content must interrupt certain segments of the main content”). According to NEC, the “sub content . . . is inserted in main content” limitation may be met where

the sub content is *not* placed in between main content. *Id.* In its infringement contentions, NEC apparently argues that a combination of audio and video files, concurrently played, meets the claim limitation. Ex. 14, (NEC '427 Claim Chart) at 10. But this is plainly contradicted by the claims and the specification, which make it clear that the advertisement content (or “sub content,” according to NEC) is placed in between segments of main content.³³

The same holds true for all embodiments disclosed in the '427 Patent. The specification makes it clear that even where the patent's scheme of using “reproduction start time” and “reproduction end time” of the individual content portions represented by the playlist information is not used, the advertisement content is meant to be placed in between the portions of main content. *See* Ex. 3, '427 Patent, 35:22–32; Ex. 12, Almeroth, ¶¶219–21. In such a case, the patent provides the solution of “*dividing* a single item of main content at *positions where advertisement content is inserted*” in order to determine what segments of the main content the advertisement content is placed between. *Id.* NEC should not be able to lay claim to an entirely different meaning where “[t]he specification consistently describes,” *Black & Decker*, 260 F. App'x at 289, the invention as being directed to “sub content . . . [being] placed in between main content.”

c) NEC's Reply

In its effort to narrow the scope of this term, Peloton cites to a single embodiment (shown in Figure 7) as defining the scope of the invention. This is directly counter to well-settled case law. *See, e.g., Liebel-Flarsheim Co. v. Medrad Inc.*, 358 F.3d 898, 906-907 (Fed. Cir. 2004); *see also Thorner v. Sony Comp. Entmt. Am.*, 669 F.3d 1362, 1365 (Fed. Cir. 2012). Since the term “inserted”

³³ *See, e.g.,* Ex. 3, '427 Patent, Claim 1 (“the play-list information being information containing information indicating **a sequence in which the main content** identified by the main content identification information **and the sub content** specified by the selected sub content specification information **are output**”), Fig. 7 (providing an example sequence of main content interrupted by segments of advertisement content).

does not possess a “particular meaning in the field of art encompassed by the [’427 Patent],” the term should be given “its ordinary and customary meaning.” *See Miken Composites, L.L.C. v. Wilson Sporting Goods Co.*, 515 F.3d 1331, 1336-37 (Fed. Cir. 2008) (applying “ordinary and customary meaning” to term “insert” where it has no special meaning in the relevant field).

The ’427 Patent repeatedly refers to Fig. 7 (relied upon by Peloton) as an “example,” such that it is clear the inventors did not intend to *limit* the claim scope to Fig. 7. *See, e.g.*, Ex. 3, ’427 Patent, 14:49-51; 4:50-53. Nowhere in the specification does the patent state that the alleged playlist of Figure 7 is the *only* mechanism by which main and sub content can be provided. Where a patentee has neither “acted as its own lexicographer” nor “unequivocally disavowed claim scope,” they are entitled to the “plain and ordinary meaning” of the term. *Thorner*, 669 F.3d at 1367-69; *accord Parkervision, Inc. v. Vidal*, No. 2022-1548, 2023 WL 8658092, at *5 (Fed. Cir. Dec. 15, 2023).

As noted by Peloton, Figure 7 shows an “X-video-sequence” including “content 1; 0;300, adv 1;0;30, content1;301;600,adv2;0;30,content1;601;900.” Ex. 3, ’427 Patent, Fig. 7. Contrary to Peloton’s contention, a reasonable interpretation of the sequence show in Figure 7, is that the start times for different content (main and sub content) *overlap*. Ex. 17, Turnbull, ¶37. The “reproduction start time” could reasonably be interpreted as an *absolute* start position, implying (in this exemplary embodiment) that each of “content1” “adv1” and “adv2” begin at a position “0” in the playlist, and only content one continues through to position “300” while adv1 and adv2 end at position “30.” *Id.* Peloton ignores what a POSA would understand the term “inserted” to mean within the context of the ’427 Patent, Ex. 17, Turnbull, ¶¶39-43, and further ignores the prior art. For example, the SIP Standard, which Peloton relies on in this case, repeatedly uses the term “inserted” to refer to supplementing or otherwise altering the underlying data/field/content. *See*,

e.g., Ex. 18 (“SIP Standard”) at 113; *id.* at 101. This is direct evidence of a POSA’s view on this term. Ex. 17, Turnbull, ¶¶ 42.

d) Peloton’s Sur-Reply

This term involves a single dispute: whether “insert” can be understood to mean “overlay” within the context of the ’427 Patent. The patent clearly shows that the sub content is placed in between main content. *See* Ex. 24, Almeroth-2, ¶¶43–46. NEC argues that this playlist instead can be read as providing overlapping main content and sub content.³⁴ Its own expert disagrees. *See* Ex. 22, Turnbull Tr. at 42:13–45:7. Moreover, though NEC argues that this is merely an “example,” neither it nor its expert are able to identify a single instance in the ’427 Patent where “insert” is used in a manner that could potentially mean “overlay” or “overlap.” *See id.* at 45:8–46:20.

NEC’s reference to the SIP standard is inapposite. Even if it were relevant, the “Record-Route” header NEC points to in the standard does not “overlay” or “overlap” text in the manner suggested by NEC. Ex. 24, Almeroth-2, ¶46. Indeed, it actually adds text *in between* other text. *Id.* Thus, even if such use of the term “insert” were relevant to construction of this term with respect to the ’427 Patent, this would support Peloton’s construction, not NEC’s.

³⁴ NEC also fails to reconcile this interpretation with the claim language itself, which describes the playlist as a “sequence.” *See, e.g.*, Ex. 3, ’427 Patent, Claim 1.

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