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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SAM SHIAW-SHIANG JIANG

Appeal 2019-002369
Application 14/517,230¹
Technology Center 3900

Before RAE LYNN P. GUEST, ERIC B. CHEN, and
JENNIFER L. McKEOWN, *Administrative Patent Judges*.

GUEST, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject Reissue Claims 9–16 in the application for reissue of the '795 patent. We have jurisdiction under 35 U.S.C. § 6(b).

¹ U.S. Patent 7,436,795 B2 (“the '795 patent”) was issued October 14, 2008, based on U.S. Application 10/314,539 (“the '539 application”), filed December 09, 2002, and was subject to *inter partes* reexamination 95/002,153 (“reexam application '153”), for which Inter Partes Reexamination Certificate US 7,436,795 C1 issued June 3, 2015, cancelling Patent Claims 1–8 of the '795 patent. The present reissue application 14/517,203 was filed October 14, 2014, adding new Reissue Claims 9–16, now subject to appeal.

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Patentee and assignee, Innovative Sonic Limited. Appeal Br. 2.

We affirm.

CLAIMED SUBJECT MATTER

The invention is directed to a data transmitter using a plurality of timers to track transmitted data blocks for improving over prior art timer-based stall avoidance mechanisms in reordering buffers at the receiver. The '795 patent, Abstract, col. 3, ll. 33–42. In particular, the Reissue Claims are directed to an embodiment in which uses one timer per missing data block but a gap of consecutive TSN missing data blocks share one timer. *Id.*, Abstract, col. 3, ll. 43–47.

Reissue Claim 9, reproduced below, with portions relevant to this appeal italicized, is illustrative of the claimed subject matter:

9. A timer based method to avoid stall of in-sequence delivery of reordering buffers at a receiver in a high speed downlink packet access (HSDPA) of a wireless communication system, where a transmission sequence number (TSN) is assigned to each new data blocks, while the receiver being capable of providing priority in-sequence received data blocks delivery by temporarily storing correctly received data blocks based on their priority class and in order of their TSN at reordering buffers before delivering them to upper layers, the method comprising:

at the receiver:

receiving a data block with assigned TSN;

storing a correctly received data block into one of the reordering buffers based on the data block's priority class and the order of its TSN;

initializing at least one timer running for a predetermined period of time for a reordering buffer when a received data block (TSN=X) cannot be delivered to an upper layer due to at least one data block with a lower TSN (TSN<X) in the reordering buffer being missed;

stopping the timer if the data block (TSN=X) can be delivered to the upper layer due to all the data blocks having lower TSN (TSN<X) in the reordering buffer being received; and

when the timer has expired, *removing at least one missing data block* from the reordering buffer;

wherein initializing at least one timer for a reordering buffer is initializing one timer for the reordering buffer and *when the timer has expired*, removing at least one missing data blocks from the reordering buffer further comprising *delivering all correctly received data blocks (TSN<= X-1) of the particular reordering buffer to the upper layer*; and removing all missing data blocks (TSN<X) from the reordering buffer.

Appeal Br. 14, Claim App'x.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Miklos	US 6,621,796 B1	Sept. 16, 2003
Fong et al.	WO 01/80476 A1	Oct. 25, 2001
3rd Generation Partnership Project; Technical Specification Group Radio Access Network; High Speed Downlink Packet Access (HSDPA); Overall Description; Stage 2 (Release 5), 3GPP TS 25.308 V5.1.0 (December, 2001) (“3GPP”)		

REJECTIONS

- (1) Reissue Claims 9–16 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.
- (2) Reissue Claims 9–16 stand rejected under 35 U.S.C. § 251, as failing to claim an invention disclosed in the original patent.³

³ While the Examiner groups the rejection under 35 U.S.C. § 251 with the rejection under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement, we understand the rejection under 35 U.S.C. § 251 as failing to claim an invention disclosed in the original patent, because 35 U.S.C. § 251 does not have a “written description” requirement.

(3) Reissue Claims 9 and 13 stand rejected under 35 U.S.C. § 102(a) as anticipated by 3GPP.

(4) Reissue Claims 10, 11, 14, and 15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over 3GPP and Fong.

(5) Reissue Claims 12 and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over 3GPP and Miklos.

Patent Owner does not argue any claims separately on appeal. Accordingly, all claims stand or fall with rejected Reissue Claim 9, including separately rejected Reissue Claims 10–12 and 14–16.

OPINION

Prosecution history of the original application (Findings of Fact, “FF”)

1. On December 09, 2002, Appellant filed the original ’539 application with Originally-filed Claims 1–14, of which Originally-filed Claims 1, 3, 8, and 10 were independent. Originally-filed claim 3 is representative of the subject matter thereof and is reproduced below, with portions relevant to the issues of this appeal italicized.

3. A timer based method to avoid the stall of in-sequence delivery of the reordering buffers at the receiver in a High Speed Downlink Packet Access (HSDPA) of a wireless communication system, where a Transmission Sequence Number (TSN) is assigned to each new data blocks, while the receiver having the capacity of providing priority in-sequence received data blocks delivery by temporarily storing the correctly received data blocks based on their priority class and in the order of their TSN at reordering buffers before delivering them to upper layers, wherein the method comprising the steps of:

at the receiver:

receiving the data block with assigned TSN;

storing the correctly received data block into one of the reordering buffers based on the data block's priority class and the order of its TSN;

initializing at least one timer running for a second predetermined period of time for each reordering buffer when a received data block (TSN=X) can't be delivered to upper layer due to at least one data block with lower TSN (TSN<X) in the reordering buffer is missed;

stopping the timer if the data block (TSN=X) can be delivered to upper layer due to all the data blocks with lower TSN (TSN<X) in the reordering buffer is received; and

when the timer expired, removing at least one missing data block from the reordering buffer.

2. A preliminary amended was filed February 23, 2006, cancelling Originally-filed Claims 2, 4, 9, and 11, amending each of the independent Originally-filed Claims. Amended-originally-filed Claim 3 (with deleted material in strikethrough, with added material underlined, and with relevant portions italicized) is reproduced below.

3. A timer based method to avoid ~~the~~ stall of in-sequence delivery of ~~the~~ reordering buffers at ~~the~~ a receiver in a ~~High Speed Downlink Packet Access~~ high speed downlink packet access (HSDPA) of a wireless communication system, where a ~~Transmission Sequence Number~~ transmission sequence number (TSN) is assigned to each new data blocks, while the receiver ~~having the capacity~~ being capable of providing priority in-sequence received data blocks delivery by temporarily storing ~~the~~ correctly received data blocks based on their priority class and in ~~the~~ order of their TSN at reordering buffers before delivering them to upper layers, ~~wherein~~ the method comprising ~~the~~ steps of:

at the receiver:

receiving ~~the~~ a data block with assigned TSN;

storing ~~the~~ a correctly received data block into one of the reordering buffers based on the data block's priority class and the order of its TSN;

initializing at least one timer running for a second predetermined period of time for each reordering buffer when a received data block

(TSN=X) ~~can't~~cannot be delivered to an upper layer due to at least one data block with a lower TSN (TSN<X) in the reordering buffer is being missed;

stopping the timer if the data block (TSN=X) can be delivered to the upper layer due to all the data blocks ~~with~~ having lower TSN (TSN<X) in the reordering buffer is being received; and

when the timer has expired, removing at least one missing data block from the reordering buffer;

wherein initializing at least one timer for each reordering buffer is initializing one timer per reordering buffer and when the timer has expired, removing at least one missing data blocks from the reordering buffer further comprising delivering received data blocks (TSN<=X-1) of the particular reordering buffer to the upper layer; and removing all missing data blocks (TSN<X) from the reordering buffer.

3. On February 05, 2008, the Examiner non-finally rejected Amended-originally-filed Claims 1 and 8 under 35 U.S.C. §§ 103(a) over three prior art references. The Examiner determined Amended-originally-filed Claims 3, 5–7, 10, and 12–14 to be allowable.

4. On June 04, 2008, in a “Response to Non-final Office Action,” Appellant cancelled Amended-originally-filed Claims 1 and 8 and made additional minor amendments to Amended-originally-filed Claims 3 and 10.

5. On August 11, 2008, the Examiner allowed Amended-originally-filed Claims 3, 5–7, 10, and 12–14.

6. On September 9, 2014, the '795 patent issued, with Amended-originally-filed Claims 3, 5–7, 10, and 12–14 appearing as Patent Claims 1–8, respectively.

7. Patent Claim 1 from the '795 patent is representative of the claims thereof, and is reproduced below, with portions relevant to this appeal italicized.

1. A timer based method to avoid stall of in-sequence delivery of reordering buffers at a receiver in a high speed downlink packet access (HSDPA) of a wireless communication system, where a transmission sequence number (TSN) is assigned to each new data blocks, while the receiver being capable of providing priority in-sequence received data blocks delivery by temporarily storing correctly received data blocks based on their priority class and in order of their TSN at reordering buffers before delivering them to upper layers, the method comprising:

at the receiver:

receiving a data block with assigned TSN;

storing a correctly received data block into one of the reordering buffers based on the data block's priority class and the order of its TSN;

initializing at least one timer running for a predetermined period of time for a reordering buffer when a received data block (TSN=X) cannot be delivered to an upper layer due to at least one data block with a lower TSN (TSN<X) in the reordering buffer being missed;

stopping the timer if the data block (TSN=X) can be delivered to the upper layer due to all the data blocks having lower TSN (TSN<X) in the reordering buffer being received; and

when the timer has expired, *removing at least one missing data block* from the reordering buffer;

wherein initializing at least one timer for a reordering buffer is initializing one timer for the reordering buffer and *when the timer has expired*, removing at least one missing data blocks from the reordering buffer further comprising *delivering received data blocks (TSN<= X-1) of the particular reordering buffer to the upper layer*; and removing all missing data blocks (TSN<X) from the reordering buffer.

Prosecution of Reexamination Application 95/002,153

8. On September 07, 2012, a third party requester ("Requester") filed a request for reexamination ("Request") and provided proposed rejections for Patent Claims 1-8 under 35 U.S.C. §§102(a) and 103(a).

Among several arguments presented, the Requester argued a proposed claim interpretation allegedly asserted by Appellant in a related litigation in which the term “data block . . . being missed” and “missing data block” means “not only blocks that are ‘missed’ but also blocks that are received but are corrupted or garbled.” Request 14.

Requester proposed rejections of Patent Claims 1 and 5 under 35 U.S.C. §102(a) over both 3GPP⁴ and Ericsson⁵ and the dependent Patent Claims under 35 U.S.C. § 103(a) over these references and further in view of additional art. Request 30–178.

9. The relevant portion of 3GPP particularly relied upon by Requester reads as follows:

7.3.3.1 Timer based mechanism

Timer T1 controls the stall avoidance in the UE reordering buffer. The value of T1 is configured by upper layers.

If no timer T1 is active:

- the timer T1 shall be started when a data block with TSN=SN is correctly received but cannot be delivered to higher layer due to that a data block with lower TSN is missing.

If a timer T1 is already active:

- no additional timer shall be started, i.e. only one timer T1 may be active at a given time.

The timer T1 shall be stopped if:

- the data block for which the timer was started can be delivered to higher layer before the timer expires.

When the timer T1 expires:

⁴ 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; High Speed Downlink Packet Access (HSDPA); Overall Description; Stage 2 (Release 5), 3GPP TS 25.308 V5.1.0 (2001-12) (“3GPP”).

⁵ Document R2-012330, Ericsson, HARQ Stall Avoidance, 3rd Generation Partnership Project (3GPP), TSG-RAN WG2 meeting #24, October 22–26, 2001 (“Ericsson”).

- all data blocks up to and including TSN-1 shall be removed from the reordering buffer;
- all data blocks up to the first missing data block shall be delivered to higher layer.

When the timer T1 is stopped or expires, and there still exist some received data blocks that cannot be delivered to higher layer:

- timer T1 is started for the data block with lowest TSN among those data blocks that cannot be delivered.

Request 17–18.

10. Requester produced the following “Figure 3” and the following arguments addressing the limitation of Patent Claims 1 and 5 of “when the timer has expired ... delivering received data blocks ($TSN \leq X-1$) of the particular reordering buffer to the upper layer[s].” Request 18–19.

TSN	0	1	2	3	4	5	6	7	8
Receiving status	X	X	X	V	V	V	V	X	V

Figure 3

3GPP 25.308 describes setting a timer when a data block is received but cannot be delivered to a higher layer due to a data block with a lower TSN being missing. In Figure 3 of the '795 patent shown above, data blocks 0, 1, 2, and 7 are missing (indicated by “x”) and data blocks 3, 4, 5, 6, and 8 are received (indicated by “v”). Thus, 3GPP 25.308 sets a timer T1 for TSN=3, which is received, but cannot be delivered to the higher layer because data blocks 0, 1, and 2 are missing. If data blocks 0, 1, and 2 are not received by the time the timer expires, data blocks $TSN < 3$ (i.e., up to and including $TSN=3-1$) are removed from the reordering buffer. 3GPP 25.308 explains that “all data blocks up to the first missing data block shall be delivered to higher layer.” (Ex. 5 at 19 under Sec. 7.3.3.1.) However, in this scenario, data blocks 0, 1, and 2 are missing and will not be delivered to the higher layer.

As another example, if data blocks 0 and 1 are received, but data block 2 is still missing when the timer T1 expires, data blocks 0, 1, and 2 are removed from the buffer and data blocks 0 and 1 (which have been received) are delivered to the higher layer under the protocol in 3GPP 25.308 because data blocks 0 and 1 are before the missing data block 2. Therefore, claims 1 and 5's limitation of "when the timer has expired ... delivering received data blocks (TSN \leq X-1) of the particular reordering buffer to the upper layer[s]" reads on the 3GPP 25.308 protocol. That is, using either the 3GPP 25.308 method or that recited by claims 1 and 5 of the '795 patent, when the timer set for missing data block 3 expires, all received data blocks having a TSN less than or equal to 2 (i.e., blocks 0 and 1) are delivered to the higher layer in the described scenario. Accordingly, this limitation as well as the other limitations are anticipated by 3GPP 25.308.

11. On November 23, 2012, Examiner non-finally rejected Patent Claims 1–8 adopting Requester's proposed rejection.

12. On January 23, 2013, Appellant responded to the Non-final rejection offering rebuttal arguments, without making amendments to the Patent Claims.

13. Appellant produced the following reproduced Figure and arguments in response to the Examiner's rejection.

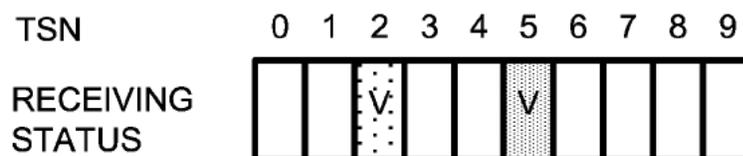


FIG. B (time = t2)

After the timer expires (i.e., at time=t3 which is after time=t2), the data blocks TSN=0, 1, 3, and 4 have still not yet been correctly received. At time=t3, the timer-based stall avoidance mechanism of the '795 Patent delivers all correctly received data blocks with TSN less than or equal to X-1. In the example discussed above with reference to Figures A and B, all correctly received data blocks with TSN less than or equal to 4 (i.e., X-1=5-1=4) would be delivered to the upper layer because TSN 5 is the TSN=X (i.e., X=5). More specifically, data block TSN=2 would be delivered to the upper layer since it is the only block correctly received.

...

In contrast, the timer-based stall avoidance mechanism disclosed in 3GPP TS 25.308 V5.1.0 (as interpreted by the Examiner) delivers only data blocks up to the first missing data block to the upper layer. Therefore, the mechanism disclosed in 3GPP TS 25.308 V5.1.0 (as interpreted by the Examiner) would not deliver data blocks TSN=0, 1, 2, 3, and 4 to the upper layer since data block TSN=0 (i.e., the first data block) is missing as shown in Figures A and B in Section II, supra. Furthermore, the mechanism disclosed in 3GPP TS 25.308 V5.1.0 would incorrectly and unnecessarily remove or discard data block TSN=2 from the reordering buffer as illustrated in Figure Bin Section II, supra. See 3GPP TS 25.308 V5.1.0, p. 19 (“all data blocks up to and including TSN-1 shall be removed from the reordering buffer”).

Appellant’s Response 9–11 (emphasis added).

14. On February 22, 2013, Requester filed Comments which include the following figures and arguments, with reference again to Figure 3 first presented in the Requester’s request for reexamination (see FF10 above).

TSN	0	1	2	3	4	5	6	7	8
Receiving Status	x	v	x	v	v	v	v	x	v

Figure B

Figure B shows one possible arrangement of received data blocks when the timer T1 expires, which is argued by Appellant. Data block

TSN=1 has been correctly received, but data blocks 0 and 2 are still missing. Appellant argues that the claim limitation “when, the timer has expired . . . delivering received data blocks (TSN<=X-1) of the particular reordering buffer to the upper layer[s]” requires that all received data blocks (TSN< X - 1) are delivered to the upper layer, so that data block TSN=1 is passed to the upper level. It is argued that 3GPP TS 25,308 V5.1.0 and Ericsson only teach delivering data blocks *up to* the first missing data block (here TSN=0), which means that TSN=1 would not be delivered.

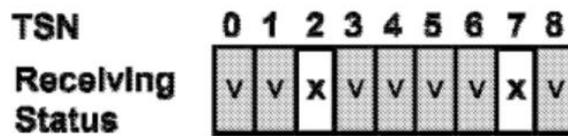


Figure C

Figure C shows the situation discussed by Requester and applied in the proposed rejections. In this case, when the timer expires, data blocks TSN=0, 1 have been correctly received, but have not yet been delivered to an upper layer because data block 2 is still missing. In accordance with 3GPP TS 25.308 V5.1.0 and Ericsson, which state that “all data blocks up to the first missing data block shall be delivered to the higher layer,” data blocks TSN=0, 1 would be delivered to the upper layer when the timer expires because they are before the first missing data block TSN=2. This situation is equally likely to occur and anticipates the limitation in claims 1 and 5 that “when the timer has expired . . . delivering received data blocks (TSN<=X-1) of the particular reordering buffer to the upper layer[s]” because it discloses exactly what is claimed. In response, Appellant reargues the scenario of received data blocks in Figure B above.

The point which Appellant fails to understand is that a claim which is broad enough to read on subject matter which anticipates is anticipated even if it also reads on subject matter which does not anticipate . . . Here, the claims cover the function for the genus of all possible arrangements of data blocks and is anticipated by at least one of the arrangements.

Requester’s Comments 7–9 (internal citations and footnotes omitted).

15. In a footnote, Requester stated:

Requester disagrees with Appellant's interpretation that “when the timer has expired . . . delivering received data blocks (TSN \leq X-1) of the particular reordering buffer to the upper layer” requires that ***all*** received data blocks (TSN \leq X-1) are delivered to the upper layer. Although this interpretation is assumed for these comments, the limitation does not say “all,” and “all” is not supported by the specification of the '795 Patent. The provisional application described that one drawback of prior art timer-based mechanisms is that “[v]iable received data blocks are unnecessarily discarded” and that a solution was to deliver all received data blocks with TSN \leq X to the higher layer. However, this disclosure was omitted from the '795 patent.

Requester Comments 8, n.1. In other words, Requester argued that 3GPP anticipated even if the Patent Claims were interpreted to require “all” received data block (TSN \leq X-1) are delivered to the upper layer, an interpretation which, as discussed below, the Board declined to accept.

16. On April 30, 2013, the Examiner issued an Action Closing Prosecution in which the Examiner rejected Appellant’s argument that the Patent Claim recitation of “received data blocks” are properly interpreted as “all received data blocks.” Action Closing Prosecution 9. The Examiner further stated that “[i]t is agreed with the Third Party Requester that the limitations of the claims do not require that all of the data blocks be delivered, for the reasons stated above; therefore, these references teach to that limitation in the claims.” *Id.*

17. On May 30, 2013, Appellant filed Comments after an Action Closing Prosecution. In doing so, Appellant disagreed with the Examiner's claim interpretation and argued that "regardless of whether or not the limitations of the claims of the '795 Patent require that all received data blocks (TSN \leq X-1) be delivered to the upper layer, the timer-based stall avoidance mechanism of the '795 Patent is distinguishable from the mechanism disclosed in 3GPP TS 25.308 V5.1.0." Appellant's Comments 11. Appellant again pointed to the situation where TSN=0 and 1 are still missing data block after the timer expires and argues that the method in 3GPP would incorrectly and unnecessarily remove or discard data blocks 2, 3, and 4 that were correctly received, but the '795 patent's method would deliver these blocks even where TSN=0 and 1 are still missing. Appellant's Comments 12.

In response to Third Party Requester's argument that scenarios exist where 3GPP's method and the '795 method would function the same, Appellant further argued:

[I]n its Comments, the Third Party Requester failed to compare the steps of the timer-based stall avoidance mechanism of the '795 Patent to the steps of the mechanism disclosed in 3GPP TS 25.308. Instead, while ignoring the Supreme Court's directive, the Third Party Requester provided, in its Comments, an analysis of an exemplary data blocks arrangement that is the *result* of the timer-based stall avoidance mechanism. Focusing on the *result* (i.e., the data blocks arrangement) rather than the *process* (i.e., the steps of delivering and removing appropriate data blocks), the Third-Party Requester concluded that "the claims cover the function for the *genus of all possible arrangements of data blocks* and is anticipated by *at least one of the arrangements*."

Appellant's Comments 13.

18. Requester did not respond to Appellant's Comments.

19. On October 18, 2013, the Examiner issued a Right of Appeal Notice. The Examiner determined that

The Appellant further argues that 3GPP 25.308 and Ericsson do not anticipate the claims because there exists a scenario in which no data blocks would be delivered in the event that the first data block were missing. It is pointed out that it is not being argued that this would also be the case where the first data block was not a missing block. Even if the Appellant's argument was correct, the inventions of 3GPP 25.308 and Ericsson would still perform the claimed method and receiver in many cases and they therefore anticipate the claim language.

Right of Appeal Notice 10.

20. On November 18, 2013, Appellant filed a Notice of Appeal, and, on February 28, 2014, Appellant filed a compliant Appeal Brief. The Appeal Brief substantially repeated the arguments noted above. Appeal Br. 11–13.

21. On June 4, 2014, the Examiner mailed an Examiner's Answer, in which the Examiner maintains the construction that the phrase "delivering received data blocks (TSN<=X-1) of the particular reordering buffer" only requires that "some, but not all, received data blocks are delivered." Ans. 10. The Examiner thus concludes that "the broadest reasonable interpretation of these claims teaches to the sending of one or more of the received data blocks upon timer expiration, but not necessarily all of them." *Id.*

22. On December 23, 2014, the Patent Trial and Appeal Board ("Board") agreed with the Examiner's claim interpretation "that claim 1 does not require delivering all received data blocks, is not overly broad" and affirmed the Examiner's rejection. Board Decision 5. The Board further agreed with the Examiner's finding that

When the 3GPP mechanism has data blocks present at the beginning of the buffer, 3GPP describes the recited delivering received data blocks (3GPP's received data blocks up to the first missing data block are

delivered). *See* 3GPP 19. 3GPP also describes the recited removing all missing data blocks (TSN<X) from the reordering buffer (3GPP's removing all data blocks up to and including TSN-1). *See* 3GPP 19. Thus, we see no error in the Examiner's findings. In passing, we also note that the '795 patent's mechanism does not deliver any data blocks to the upper layer in the case where no data blocks with TSN<=X-1 are received before the timer has expired. Thus, the '795 patent's mechanism, like the 3GPP mechanism, cannot guarantee data blocks are delivered in all cases.

Board Decision 6–7. Regard Appellant's arguments regarding when the specific situation when TSN=0 is still missing after the timer expires, such that the mechanism of 3GPP would not deliver any data packets to the upper layer, the Board agreed with the Examiner that, even so, 3GPP's invention "would still perform the claimed method and receiver in many cases" and, thus, 3GPP satisfies the language of the Patent Claims. Board Decision 6 (citing Examiner's Answer 11).

23. On June 03, 2015, Reexamination Certification was issued canceling Patent Claims 1–8.

Prosecution of the present Reissue Application

24. Prior to the Board's decision in the reexamination application discussed above, on October 17, 2014, Appellant filed the present Reissue Application 14/517,230, seeking to reissue the '795 patent. The reissue declaration claimed that the error upon which reissue is based is that the phrase "delivering received data blocks (TSN<=X-1) of the particular reordering buffer" "may be inaccurate" and "should be all correctly received data blocks (TSN<=X-1)." Reissue Declaration.

25. On January 20, 2016, Appellant filed a Preliminary Amendment to the Reissue Application, cancelling Patent Claims 1–9 and adding new Reissue Claims

9–16. Independent Reissue Claim 9, reproduced above, and independent Reissue Claim 13 are amended only to include the words “all correctly” with the remaining limitations “being exactly the same as” Patent Claims 1 and 5, which were deemed unpatentable in the reexamination proceeding. Appeal Br. 6.

*35 U.S.C. § 112, 1st Paragraph, written description, and 35 U.S.C. § 251*⁶

Reissue Claims 9–16 stand rejected under 35 U.S.C. § 112 (pre-AIA), first paragraph and 35 U.S.C. § 251, as failing to comply with the written description requirement. Final Act. 16. The Examiner determines that the term “correctly received data blocks” necessarily “requires some cursory differentiation between correctly received data blocks and other data blocks” and there is no support in the

⁶ The Examiner interprets Reissue Claims 13–16 as means plus function claims in accordance with 35 U.S.C. § 112, sixth paragraph, and avers that the ’795 patent “does not appear to disclose any special-purpose computer for performing the claimed algorithms that would constitute a means for doing so” and “therefore finds that the ’795 patent lacks support for the recited converting steps.” Yet, the Examiner has not properly rejected Reissue Claims 13–16 under 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner’s comments are noted for the purposes of claim interpretation only, but we decline to enter a new ground of rejection on this basis. In particular, we note that the U.S. District Court for the Northern District of Texas found sufficient disclosure in the ’795 patent that “[t]he HSDPA receiver performs the recited functions of receiving data blocks, receiving a configuration time, and control of the timer by starting a timer, stopping a timer, and setting the time that the timer is to run” and that “the reordering entity of the MAC-hs of an HSDPA receiver . . . stores data blocks, delivers data blocks to upper layers, and removes missing data blocks.” *Innovative Sonic Ltd. v. Research In Motion Ltd.*, No. 3:11-CV-0706-K, 2012 WL 4928897, *19, 21 (N.D. Tex. Oct. 17, 2012) (citing the ’795 patent, col. 1, ll. 24–29, 49–51, 53–55, col. 2, ll. 54–55, col. 3, ll. 10–11, col. 4, ll. 32–34, 52–55, Originally-filed Claims 3 and 7, and 3GPP specifications defining the standard for operating wireless communication devices).

Specification for making this differentiation. Final Act. 26; Ans. 4. The Examiner further determines that, if the phrases “correctly received data blocks” and “received data blocks” mean the same thing, as Appellant asserts, the application fails under 35 U.S.C. § 251 because the Reissue Claims are not properly narrowed consistent with the Appellant’s statement of the error to be corrected. In other words, the Examiner’s reasoning turns on the lack of written descriptive support for the additional term “correctly” in the phrase “delivering all correctly received data blocks (TSN<= X-1) of the particular reordering buffer to the upper layer.”

Appellant asserts that the term “correctly received data blocks” means the same as “received data blocks” in the Patent Claims. Appeal Br. 8; Reply Br. 4. According to Appellant, there are only two status for reception of data blocks: “received” or “not received” and that any data block that is received, but corrupted or unusable is considered “not received” or “missing.”

We agree with the Appellant that the phrases “corrected received data blocks” and “received data blocks” appear to have the same meaning. Even Originally-filed Claim 3 of the ’530 application recited only two types of data blocks “correctly received data blocks” and “missing data blocks.” The Originally-filed Claims, the Patent Claims, and the Reissue Claims all recite “storing the correctly received data blocks” and removing “at least one missing data block.” In other words, received data blocks that are not correct, i.e., incomplete or corrupted, are not stored, and thus are “missing.”

Our interpretation of the Reissue Claims is consistent with the interpretation of the term “missing data blocks” in the Patent Claims as interpreted by the Northern District of Texas in *Markman* Memorandum Opinion and Order, *Innovative Sonic Ltd. v. Research In Motion Ltd.*, No. 3:11-CV-0706-K, 2012 WL 4928897, *16-17 (N.D. Tex. Oct. 17, 2012), where the court determined that:

The claim's language itself support a construction that requires that a missing data block in one that has not been correctly received. The phrase "missing data block" alone does not indicate why the block is missing, merely that it is missing. There is nothing in the phrase to suggest that it is missing because it has not been received, it is missing because it was received but unusable, or any other reason that it may be missing. However, the claim language does provide that the method comprises "receiving a data block" and "... storing a *correctly received* data block into one of the reordering buffers ..." '795 Patent 5:22–24. Furthermore, the method continues such that a "... when the timer is expired, removing at least one *missing data block* from the reordering buffer; ..." '795 Patent 5:35–36.

Under the method, as described by the claim language, blocks are received, correctly received blocks are stored in a buffer, and missing data blocks are discarded. If a block is not received correctly, under the method claimed, it is not stored in the reordering buffer. Only correctly received blocks are stored in the buffer. The missing data blocks in question in this construction are later removed from the reordering buffer. Since only correctly received blocks are placed in the reordering buffer the missing data blocks that are removed from the buffer must be those that were not put into the buffer in the first place. Specifically the missing data blocks are the data blocks that have not been correctly received.

The patent specifications provide further support for a construction that missing data blocks are those that have not been correctly received. The background of the invention discloses that the user equipment "... provides in-sequence delivery to higher layers by storing the *correctly received* data blocks in reordering buffers ..." and that "when a data block with low sequence number in the buffer is *missing (i.e. not yet correctly received)*, all received data blocks with higher TSN are kept in the reordering buffer" '795 Patent 1:55–66. Like the claim language itself, the specifications also contemplate that only correctly received blocks are place into the reordering buffer and that the missing blocks that are removed are those that were not placed in the reordering buffer because they were not correctly received. The Court finds that a person of ordinary skill in the art would read the claims, in light of the specifications and understand that the Appellant

used the phrase “missing data blocks” to mean data blocks that were not correctly received.

For the foregoing reasons the Court construes the phrase “missing data block” to mean “data block that has not yet been correctly received.”

For this reason, we agree with the Appellant that there is written descriptive support for the phrase “correctly received data blocks” and we do not sustain the Examiner’s rejection. Similarly, we do not sustain the Examiner’s rejection under 35 U.S.C. § 251. We understand that it is the addition of the limitation “all” to the phrase “all correctly received data blocks” and not the word “correctly” that Appellant argues is a narrowing limitation under 35 U.S.C. § 251.⁷

35 U.S.C. §§ 102 and 103

The Examiner found that 3GPP teaches all of the recited claim limitations of Reissue Claim 9. With respect to the limitation of “delivering all correctly received data blocks (TSN<=X-1) of the particular reordering buffer to upper layers” the Examiner finds that 3GPP teaches:

⁷ We agree with the footnote raised by the Requester during reexamination (FF15) that the Reissue Claims lack written descriptive support in the ’795 patent under 35 U.S.C. § 112, first paragraph, for “delivering *all* correctly received data blocks . . .” because the specification did not incorporate the word “all” during the initial prosecution of the ’795 application, despite the word “all” expressly described in the provisional application relied upon for priority. *See* 37 C.F.R. § 1.57(b) (discussing the requirements for perfecting incorporation by reference of “inadvertently omitted” material from a priority document, which were not met during prosecution of the ’795 patent). Further, because the face of the ’795 patent does not support the phrase, the Reissue Claims do not comply with the original patent requirement of 35 U.S.C. § 251. Nonetheless, we decline at this time to present rejections under new grounds, based on the thrust of the rejection changing from focus on the term “correctly” to the term “all” in the phrase at issue, because, below, we affirm the rejection of all Reissue Claims on other grounds.

(all data blocks up to the first missing data block shall be delivered to the higher layer, see Section 7.3.3.1; if this algorithm [taught by 3GPP] were applied to the situation in Figure 3 of the '795 patent, it would result in all correctly received data blocks, where $TSN \leq X-1$, being delivered).

Final Act. 20, 22. Indeed, The Examiner finds that “it has already been settled that the art cited herein anticipates or renders unpatentable the claims herein in the '153 reexamination (see Board Decision, issued 23 December 2014).” Final Act. 26; Ans. 4. In other words, the Examiner adopts the position of the Third Party Requester and the Examiner during reexamination of the '795 patent, which was affirmed by the Board.⁸ See FF10, 14, 19, 22.

Appellant argues a scenario, similar to the scenarios presented during reexamination, where $TSN=0$ and 1 data blocks have not been received though $TSN=2, 3,$ and 4 data blocks were received before the timer expired and that, in such scenario, 3GPP's method would “incorrectly and unnecessarily remove or discard data blocks $TSN=2, 3,$ and 4 rather than deliver them to the upper layer,” but, on the other hand, they would be delivered under the step reciting “delivering *all* correctly received data blocks ($TSN \leq X-1$) of the particular reordering buffer to the upper layer” in the Reissue Claims. Appeal Br. 11–12.

⁸ While the Examiner refers in the rejection to “Figure 3 of the '795 patent,” we understand the Examiner to be adopting the arguments made by the Third Party Requester and relied upon by the Board in the reexamination of the '795 patent. See Final Act. 26; Ans. 4. As noted above, the Third Party Requester referred to a “Figure 3” in its original Request. See FF10. This “Figure 3” is not the same as Figure 3 of the '795 patent. Nonetheless, the Requester's Figure 3 is an example situation where if the 3GPP algorithm were applied “it would result in all correctly received data blocks, where $TSN \leq X-1$, being delivered,” while Figure 3 of the '795 patent is not. Thus, we understand the Examiner to be referring to the Figure 3 that was before the Board during the reexamination proceeding. See FF10.

Nonetheless, Appellant does not refute or even discuss in this appeal⁹ the Examiner's finding that scenarios exist where, using the 3GPP algorithm, "all correctly received data blocks (TSN<= X-1)" would be delivered to the upper layers, such as those scenarios presented by the Requester and relied upon by the Examiner during reexamination of the '795 patent (*see* FF 10, 14, 16, 19) and further referenced by the Examiner in rejecting the Reissue Claims. Final Act. 26; Ans. 4. Accordingly, Appellant has shown no error in the Examiner's findings,¹⁰ and we sustain the Examiner's rejections under 35 U.S.C. §§ 102 and 103.

CONCLUSION

The following rejections are reversed:

- (1) Reissue Claims 9–16 rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement and

⁹ During Reexamination of the '795 patent, the Board expressly considered Appellant's arguments regarding the Third Party Requester focusing on results rather than the process (*see* FF 17) and found the arguments unpersuasive. *See* Board Decision 4, 6–7. Nonetheless, no similar argument was presented in this appeal. *See generally* Appeal Br. and Reply Br.

¹⁰ Moreover, we note that the '795 patent admits that it was known in the art at the time of the invention to deliver all of the received data blocks (TSN<= X-1) to the upper layer after the timer expires in describing exactly that scenario and the limitations to "one timer based stall avoidance mechanisms of [the] prior art" in the background section of the '795 patent. *See* '795 patent, col. 2, ll. 39–col. 3, ll. 28. The inventive contribution acknowledged in the '795 patent is not in having all correctly received data blocks (TSN<= X-1) delivered to the upper layer, as such was known in the art, but rather in using "a plurality of timers at the transmitter to track all transmitting data blocks to *improve* the timer based stall avoidance mechanism." *Id.*, col. 2, ll. 34–36 (emphasis added). "A statement in the patent that something is in the prior art is binding on the applicant and Appellant for determinations of anticipation and obviousness." *Constant v. Advanced Micro Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988).

(2) Reissue Claims 9–16 under 35 U.S.C. § 251, as failing to claim an invention disclosed in the original patent.

The following rejections are *sustained*:

- (1) Reissue Claims 9 and 13 rejected under 35 U.S.C. § 102(a) as anticipated by 3GPP;
- (2) Reissue Claims 10, 11, 14, and 15 rejected under 35 U.S.C. § 103(a) as unpatentable over 3GPP and Fong; and
- (3) Reissue Claims 12 and 16 rejected under 35 U.S.C. § 103(a) as unpatentable over 3GPP and Miklos.

The Examiner’s decision to reject Reissue Claims 9–16 is **AFFIRMED**.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
9-16	112, 1 st ¶	Written Description		9–16
9-16	251	Original Patent		9–16
9 and 13	102	3GPP	9 and 13	
10, 11, 14, 15	103	3GPP and Fong	10, 11, 14, and 15	
12 and 16	103	3GPP and Miklos	12 and 16	
Overall Outcome			9–16	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

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AFFIRMED