

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD

ONEPLUS TECHNOLOGY (SHENZHEN) CO., LTD.,
Petitioners,

v.

PANTECH CORPORATION,
Patent Owner

Case: IPR2025-00763

U.S. Patent No. 11,212,838

PATENT OWNER'S PRELIMINARY RESPONSE

Mail Stop **Patent Board**
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
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Case IPR2025-00763
Patent No. 11,212,838
Patent Owner's Preliminary Response

PATENT OWNER'S EXHIBIT LIST

Exhibit No.	Description
2001	Claim Construction Order from <i>Pantech Corp. et al. v. OnePlus Tech. (Shenzhen) Co., Ltd.</i> , No. 5:24-cv-00038-RWS-JBB (E.D. Tex.)
2002	U.S. Patent Application Pub. No. 2008/0117891 ("Damnjanovic")
2003	U.S. Patent Application Pub. No. 2007/0135130 ("Lee")
2004	U.S. Patent Application Pub. No. 2006/0164993 ("Teague")

I. INTRODUCTION

Patent Owner Pantech Corporation (“Pantech”) respectfully requests that United States Patent and Trademark Office (“USPTO” or the “Office”) Patent Trial and Appeal Board (“PTAB” or the “Board”) deny institution of *inter partes* review of claims 1-10 (the “challenged claims”) of U.S. Patent No. 11,212,838 (“the ’838 Patent”). Petitioner OnePlus Technology (Shenzhen) Co., Ltd.’s (“Petitioner” or “OnePlus”) has failed to demonstrate a reasonable likelihood of prevailing with respect to at least one challenged claim.

More specifically, Petitioner has not shown that its primary reference—Zeira—is likely to render the challenged claims unpatentable, and the secondary reference—Yi—fails to cure the deficiencies of Zeira under a theory of obviousness. Among several deficiencies, neither Zeira or Yi teaches an important limitation of independent claims 1 and 6 of the ’838 Patent, whereby information in an RRC message is used to configure a MAC timer that is part of a WTRU, which will deactivate the indicated uplink resources when it expires, as required by claims 1 and 6 of the ’838 Patent. *See* ’838 Patent at claims 1, 6.

Accordingly, Petitioner has failed to meet its burden of showing a reasonable likelihood of prevailing with respect to the invalidity of any challenged claims. The Board should deny Petitioner’s request to institute *inter partes* review.

II. BACKGROUND

A. Background of the '838 Patent

The '838 Patent relates to the field of wireless communications. More particularly, it sets forth an invention for releasing dedicated channel resources. '838 Patent at 2:29-48. The invention of the '838 Patent is directed to solving problems arising from the increased prevalence of non-real-time data services (*e.g.*, internet browsing, email). '838 Patent at 1:37-2:25. These non-real-time services exhibit long periods of inactivity, which caused usage of previous transmission channels (whereby collisions may occur when multiple wireless transmit receive units (WTRUs) (*e.g.*, cellular phones) are accessing resources simultaneously) to suffer inefficiencies. '838 Patent at 1:37-2:25.

At a high level, the solution arrived at by the inventors of the '838 Patent includes the use of one or more radio resource control (RRC) messages that indicate medium access control (MAC) timer information, wherein that MAC timer is then used by the processor of the WTRU to deactivate indicated uplink resources. *See* '838 Patent at claims 1, 6. "The timer module may be configured to indicate the maximum allowable transmission time for a logical channel (*i.e.*, dedicated control channel (DCCH), dedicated traffic channel (DTCH), common control channel (CCCH), etc.)." '838 Patent at 4:29-37. Using the invention of the '838 Patent, a

message phase can be terminated in an effective manner to increase a transmission channel's data rate.

Relevant to this Petition and its deficiencies, the '838 Patent discusses that the invention can be implemented, *inter alia*, with a "timer." '838 Patent at 6:1-29. This "timer" is triggered by an event: "The timer may start as soon as the radio resource control (RRC) provides the MAC with the timer values, and after receiving the E-DCH resource index 502. The timer may start if the WTRU 210 starts the first dedicated physical control channel (DPCCH) preamble transmission 503." '838 Patent at 5:9-13; *see also* Fig. 5.

The '838 Patent claims priority to U.S. Patent No. 10,306,677, filed on Oct. 6, 2015; U.S. Patent No. 9,313,809, filed on Jun. 30, 2014; U.S. Patent No. 8,774,104, filed on Sept. 26, 2008; U.S. Provisional Patent Application No. 60/975,985, filed on Sept. 28, 2007; U.S. Provisional Patent Application No. 60/982,528, filed on Oct. 25, 2007; U.S. Provisional Patent Application No. 61/018,999, filed on Jan. 4, 2008; U.S. Provisional Patent Application No. 61/025,441, filed on Feb. 1, 2008; U.S. Provisional Patent Application No. 61/038,576, filed on Mar. 21, 2008; U.S. Provisional Patent Application No. 61/074,288, filed on Jun. 20, 2008; and U.S. Provisional Patent Application No. 61/083,409, filed on Jul. 24, 2008.

B. Relevant '838 Patent Prosecution History

The claims at issue of the '838 Patent were examined for their novelty, and an extensive search report by the examiner was undertaken. *See, e.g.*, EX1002 at 26-95 (search history). A first non-final rejection was first made under 35 U.S.C. § 103 over U.S. Patent Application Pub. No. 2008/0117891 (“Damnjanovic”) (EX2002) in view of U.S. Patent Application Pub. No. 2007/0081492 (“Petrovic”). *See* EX1002 at 596-99.

Applicant distinguished these references largely on the basis that “Damnjanovic fails to teach or suggest the use of an RRC message indicating allocated resources and MAC timer information, wherein the MAC timer being configured based on the MAC timer information as recited in the pending claims” and that “Petrovic’s ‘activation time’” is not “‘MAC timer information’ found in the pending independent claims... because Petrovic’s ‘activation time’ is related to the receipt of downlink data from a base station.” EX1002 at 574-78.

The examiner then issued a final rejection under 35 U.S.C. § 103 over Damnjanovic and Petrovic, and further in view of U.S. Patent Application Pub. No. 2007/0135130 (“Lee”) (EX2003). The arguments presented largely mirrored those in the non-final rejection. *See id.* at 488-93. Applicant again distinguished these references on largely the same grounds. *Id.* at 475-79. Applicant also amended the

wording in claims 1 and 6, but these amendments were not tied to any arguments for patentability. *Id.* at 471-79.

A notice of allowance was then provided, wherein the examiner found applicant's remarks persuasive, further noted U.S. Patent Application Pub. No. 2006/0164993 ("Teague") (EX2004) and U.S. Patent Application Pub. No. 2002/0097740 ("Choi") as "pertinent," and concluded that "[t]he prior art of record fails to disclose the feature the transmitter and the processor are configured to transmit uplink data based on the indicated uplink resources, the WTRU's processor is configured to deactivate the indicated uplink resources in response to a MAC timer expiring, and the MAC timer is configured based on the MAC timer information indicated by the received RRC message, as recited in claims 1, 6." *See* EX1002 at 275.

C. Summary of Petitioner's Proposed Grounds for Unpatentability

Petitioner contends that claims 1-10 of the '838 Patent would have been obvious under pre-AIA 35 U.S.C. § 103 based on the following references:

1. U.S. Patent Application Pub. No. 2004/0114574 ("Zeira");
2. U.S. Patent Application Pub. No. 2005/0174956 ("Yi").

The specific grounds of alleged invalidity and are summarized as follows:

Ground	Basis	Claims	References
1	§103	1-10	Zeira
2	§103	1-10	Zeira in view of Yi

D. Petitioner’s Relied-Upon References

The two references relied upon by Petitioner are summarized as follows:

1. Overview of Zeira (Ex. 1005)

U.S. Patent Application Pub. No. 2004/0114574 (“Zeira”) corresponds to a patent application filed on May 29, 2003. Zeira “relate[s] to establishing the temp-DCH [temporary dedicated channel] channel, determining the data rate and duration of the channel.” Zeira at ¶ 6 (summary). Zeira discloses that a servicing radio network controller (S-RNC) “computes a duration (transmission time period) based on the time required to transmit available data and/or data predicted to arrive, 108. If the duration is computed, this information may be transmitted to the WTRU 500.” *Id.* at ¶ 74. But Zeira does not disclose what the WTRU may or may not do with this “duration” information (beyond a generalized statement that the user releases the channel at the end of this “duration”), and does not disclose that any transmission of “duration” information to the WTRU occurs via RRC messaging. *See generally* EX1005.

2. *Overview of Yi (Ex. 1006)*

U.S. Patent Application Pub. No. 2005/0174956 (“Yi”) corresponds to a patent application filed on January 10, 2005. Yi concerns “releasing a point-to-multipoint radio bearer for a multicast or broadcast service in a mobile terminal, and in particular, to determining the releasing of the point-to-multipoint radio bearer by checking a status of the multicast or broadcast service when a data of the multicast or broadcast service is not received for a certain period of time after the mobile terminal establishes the point-to-multipoint radio bearer and receives the data of the multicast or broadcast service.” Yi at ¶ [0002]. Yi thus concerns inactivity timers tied to the download of data by a mobile terminal, and discloses that these timers may be controlled by PDCP, RLC, or MAC entities. *Id.* at ¶ [0039].

III. CLAIM CONSTRUCTION

Petitioner acknowledges that it requested a claim construction of the term “uplink resources” in the parallel District Court Action (*Pantech Corp. et al. v. OnePlus Tech. (Shenzhen) Co., Ltd.*, No. 5:24-cv-00038-RWS-JBB (E.D. Tex.)), contending that the term should be construed as “resources that include at least an indication of a spreading code.” *See* Pet. at 9. The Magistrate Judge has rejected Petitioner’s proposed construction and ruled that this term should be understood according to its plain and ordinary meaning. EX2001. For purposes of this

Preliminary Response, Patent Owner applies the Magistrate Judge's construction of this term.

IV. LEGAL STANDARD FOR OBVIOUSNESS UNDER 35 U.S.C. § 103

A claim is not patentable if the differences between it and the prior art are such that the subject matter as a whole would have been obvious to a person of ordinary skill in the art at the time of the invention. 35 U.S.C. § 103(a). Obviousness requires assessing (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of non-obviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966)).

It is a petitioner's burden “to demonstrate both ‘that a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.’” *Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1367-68 (Fed. Cir. 2016) (quotations and citations omitted). However, a petitioner must first show that all of the claimed elements are disclosed in the prior art. *See Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1164

(Fed. Cir. 2006) (considering motivation to combine and reasonable expectation of success only “if all the elements of an invention are found in a combination of prior art references”).

V. THE PETITION DOES NOT SHOW A REASONABLE LIKELIHOOD OF PREVAILING WITH RESPECT TO ANY CHALLENGED CLAIM

Institution should be denied because Petitioner does not establish a reasonable likelihood of prevailing against any challenged claim.

A. Ground 1: Petitioner Fails to Establish that Zeira Renders Any of Claims 1-10 Obvious

Petitioner has not shown a reasonable likelihood of prevailing on Ground 1 because Zeira, even in view of the knowledge of a person of ordinary skill in the art, lacks important limitations of the challenged claims.

1. Zeira lacks disclosure of a MAC timer or reception of MAC timer information

Zeira does not teach or suggest at least the medium access control (MAC) timer information in the context of the following limitations in independent claims 1 and 6:

- “*the receiver and the processor are configured to receive at least one radio resource control (RRC) message indicating [] medium access control (MAC) timer information*” (claim 1) / “*receiving, by a wireless transmit/receive unit (WTRU), at least one radio*

resource control (RRC) message indicating [] medium access control (MAC) timer information” (claim 6)

- *“the MAC timer is configured based on the MAC timer information indicated by the received RRC message” (claims 1 & 6)¹*

Nowhere in Zeira is there a disclosure of a MAC timer. Petitioner cites to disclosures in Zeira of the servicing radio network controller (S-RNC) computing a duration of a temporary dedicated channel (temp-DCH) (*see generally*, Pet. at 18-29, citing, *inter alia*, Zeira at ¶¶ 6, 14, 36-38, 40-50, 52, 53, 74, 76-87, 99, 326, 329, 338, 393-403, 423, Figs 2, 8), but none of these citations teach a MAC timer used by the WTRU.

There is no teaching or disclosure in Zeira that the “duration” is something that is maintained by, implemented, or even tracked by the MAC layer, let alone the

¹ In footnote 10, Petitioner argues that this term “lacks proper antecedent basis.” *See* Pet. at 35 n. 10. This is incorrect. The clear (and only possible) antecedent basis is a received RRC message that indicates MAC timer information, and the Petition even follows this understanding. In any event, an indefiniteness argument under 35 U.S.C. § 112 is outside the scope of an *inter partes* review. *See Cuozzo Speed Techs., LLC v. Lee*, 579 U.S. 261, 275 (2016).

MAC layer in the processor of the WTRU. Rather, Zeira merely states that “[i]f the duration is computed, this information may be transmitted to the WTRU 500.” Zeira at ¶ [0074]. This does not disclose any implementation of any timer, and more importantly it does not disclose a timer at the MAC layer in the WTRU.

Indeed, Zeira is at best a generalized disclosure of a process that lacks the inventive contribution of the '838 Patent; the invocation of a MAC timer is hindsight. Zeira “relate[s] to establishing the temp-DCH channel, determining the data rate and duration of the channel.” Zeira at ¶ 6 (summary).

The disclosures to which Petitioner cites concern the same: “After resources are granted, the S-RNC 508 computes a duration (transmission time period) based on the time required to transmit available data and/or data predicted to arrive, 108. If the duration is computed, this information may be transmitted to the WTRU 500.” *Id.* at ¶ 74. The remaining disclosures of Zeira cited by Petitioner concern the calculation and transmission of this duration, *not* what the WTRU may or may not do with this information (beyond a generalized statement that the user releases the channel at the end of this duration). *See* Pet. at 18-29. Zeira does not say that the WTRU does *anything* with this information.

In other words, Zeira provides no instructions about how a WTRU is to use the duration that is transmitted to it, as its alleged invention is focused elsewhere.

This is where the invention of the '838 Patent comes in. As the '838 Patent explains, "it was proposed to use the enhanced dedicated channel (E-DCH) in the CELL_FACH state to increase the data rate of the shared channel... However, in the current standard, there are no methods to terminate the E-RACH message phase." '838 Patent at 2:4-22. Accordingly, a "method and apparatus is provided for terminating an E-RACH message in an E-RACH transmission." *Id.* at 2:29-30. More specifically:

In one embodiment, the WTRU 210 may be configured to include a timer module. The timer module may include multiple timers, wherein a timer may be associated to each logical channel or each MAC-d flow. The timer module may be configured to indicate the maximum allowable transmission time for a logical channel (i.e., dedicated control channel (DCCH), dedicated traffic channel (DTCH), common control channel (CCCH), etc.). The values for the timer module may be preconfigured or signaled to the WTRU 210. The timers may be activated upon the WTRU's 210 first transmission, once an E-DCH resource index is received. The WTRU may be configured to release an E-DCH resource upon expiry of its associated timer.

Id. at 4:29-41.

As the Examiner recognized, this was inventive: the "prior art of record fails to disclose... the processor is configured to deactivate the indicated uplink resources in response to a MAC timer expiring, and the MAC timer is configured based on the

MAC timer information indicated by the received RRC message.” *See* EX1002 at 275. This prior art of record considered “pertinent” by the Examiner (*see id.*) included U.S. Patent Application Pub. No. 2006/0164993 (“Teague”) (EX2004), which similar to Zeira discloses “termination of assignment [] at the scheduled time” but does not provide implementation details that include a timer. *See* EX2004 at ¶ [0026] (“An explicit termination of an assignment occurs when either the AP [Access Point, *i.e.*, base station] or AT [Access Terminal, *i.e.*, mobile phone] schedules a termination of assignment and terminates the assignment at the scheduled time.”). U.S. Patent Application Pub. No. 2007/0135130 (“Lee”) (EX2003), also considered by the Examiner and overcome by the applicant, concerned a “second stop timer 209” that “corresponds to a deactivation time, [wherein] when the deactivation time arrives, the second stop timer 209 stops, and the mobile station 101 stops transmitting packets” (EX2003 at ¶ [0046]), but this, like Zeira, falls short of disclosing the claimed invention.

Petitioner ultimately turns to its expert, Dr. Lo, to fill the gaps of Zeira: “A POSITA would have further understood and found it obvious that the duration sent by the S-RNC to the WTRU indicates MAC timer information because the WTRU MAC layer is configured with this information.” *See* EX1003 at ¶¶ 110-13. But the reasoning employed by Dr. Lo fails.

First, Dr. Lo argues that “Zeira describes ‘...the C-RNC 506 or S-RNC 508 can calculate the time that MAC-d will need to transmit the current buffered data and set the duration accordingly.’” EX1003 at ¶ 110 (citing Zeira at ¶ 76). But this is simply a statement that the C-RNC or S-RNC—which are network-side devices—are themselves calculating the duration of the temp-DCH channel based on the MAC-d’s inherent involvement in transmitting buffered data. In other words, the passage that Petitioner relies heavily upon merely mentions that a duration of channel availability can be calculated based on the time needed to transmit data over the channel. Zeira does not state or otherwise teach that the WTRU itself is to use a MAC timer to track that duration. Why would the WTRU not control the transmission with a physical layer channel timer, which would have been more direct since the physical layer controls the transmission, or a radio link control layer timer? Why would any timer at all be used by a WTRU, rather than, say, using an

established end time?² Arriving at a MAC timer is impermissible hindsight bias and is outside the teachings of Zeira.

Second, Dr. Lo argues that “it was well known to a POSITA, and described in various 3GPP standard documents, that MAC layer handles the timing aspect related to subframes or TTIs... Therefore, Zeira’s explanation about how temp-DCH duration is calculated as a multiple of TTIs, would have further confirmed and made it obvious that the duration communicated to and tracked by the WTRU would be implemented as a MAC timer.” EX1003 at ¶ 111 (citing Zeira at ¶¶ 77-79, 397). But Transmission Time Intervals (TTIs) are the basic time unit for scheduling data in a cellular networks generally, and are also used by other layers such as the physical layer. *See, e.g.*, EX1007 (3GPP TS 36.300) at Section 5.1.7 (Physical layer procedure) (“The same coding and modulation is applied to all groups of resource blocks belonging to the same L2 PDU scheduled to one user within one TTI and within a single stream.”). Therefore, Zeira’s disclosure that the duration may be

² The '838 Patent itself notes the possible alternative of using a windowing that counts frame numbers. *See* '838 Patent at 5:42-49 (“[a]lternatively, the WTRU 210 may count the number of transmissions and retransmissions and use the count as a trigger to stop the transmission of the E-RACH message phase”).

calculated as a “multiple of the longest TTI length in the TFCS of the CCTrCH” (as pointed to by Dr. Lo) does not indicate or suggest the usage of a timer, let alone a MAC timer.

Third, Dr. Lo proposes a conclusory catchall: “a POSITA would have found this obvious to begin with, because a POSITA would have known that the MAC fundamentally controls access to the transmission medium.” EX1003 at ¶ 112.

But even here, Petitioner and Dr. Lo build their case upon a weak foundation. The 3GPP references Dr. Lo relies upon (EX1007-1009, 1011-1012, 1015-1016, 1018-1019, and 1021) post-date Zeira, as even Dr. Lo admits. *See generally*, EX1003 at iv (exhibit list setting forth publication dates). Thus, they do not serve to explain the disclosures of Zeira. And while there would have theoretically been no legal prohibition against using these later-arising 3GPP references with Zeira in an obviousness combination, Dr. Lo and Petitioner did not do this. Grounds 1 and 2 do not rely on these 3GPP references for any obviousness ground, and there is no analysis of any motivation to combine these references, among other shortcomings. An ill-explained disclosure to a number of 3GPP references that arise just before the '838 Patent's priority date is not a way to avoid the requirements of an obviousness argument.

Furthermore, whether or not Dr. Lo's generalized opinion (which ignores other potential controls, as already addressed) that "the MAC fundamentally controls access to the transmission medium" is true, Zeira does not suggest a MAC timer in particular. Asserting that a MAC timer is the tool that would be used by the WTRU is impermissible hindsight bias.

Ultimately, there is no teaching, suggestion, or motivation in Zeira itself to use information in an RRC message to configure a MAC timer that will deactivate the indicated uplink resources when it expires, as required by claims 1 and 6 of the '838 Patent. Petitioner turns to the say-so of its expert, but this analysis relies on impermissible hindsight and fails to cite any clear basis for the obviousness opinion. Zeira is no closer than the already-considered references Teague and Lee to disclosing the claimed invention. According, Petitioner has not shown a reasonable likelihood that claims 1-10 of the '838 Patent are invalid in view of Zeira, and another inquiry would be unduly cumulative.

2. *Zeira does not disclose that a radio resource control (RRC) message indicates any MAC timer information*

Zeira also does not disclose the requirement of claims 1 and 6 that the relevant message is sent by radio resource control (RRC) message. *See* '838 Patent at cl. 1, 6 ("at least one radio resource control (RRC) message indicating... medium access control (MAC) timer information"). The contents of the RRC messaging in Zeira

pointed to by Petitioner (generally, paragraphs [0404]-[0420], *see* Pet. at 22³) do not set forth any MAC timer information (or even the “duration” information relied upon by Petitioner). *See* EX1005 at ¶¶ [0404]-[0420]. And even though Zeira later states that the WTRU “[c]onfigures the MAC layer with the new transport channel information (in case of changes in transport channel information) and the new radio bearer mapping information received in the message,” this has no apparent connection to any duration information.

Further, paragraph [0401] of Zeira, which qualifies the RRC procedure, states that this RRC procedure is used “[f]or low-rate temp-DCH, [and] the duration is preferably fixed....” EX1005 at ¶ [0401]. Petitioner argues that a POSITA would understand that this RRC procedure “applied to both low- and normal-date rate temp-DCH scenarios” (Petition at 24 n. 8) but that is not what Zeira says.⁴ Rather, the very reason that Zeira does not show the RRC message contents including any duration is because Zeira is teaching to only use that RRC message procedure for

³ There is also a discussion of “spreading codes” in the Petition. *See* Pet. at 20-23.

The relevance to transmission of the duration at issue is unclear.

⁴ Though Petition relies on Dr. Lo again, Dr. Lo merely parrots what is in the Petition.

low-rate, fixed duration scenarios where no duration would be included (because it does not change).

3. *Zeira does not disclose a processor of specified configuration*

For similar reasons as Zeira does not disclose or render obvious any MAC timer, Zeira also fails to disclose or render obvious any processor with the configurations specified by claim element [1.f] (“the processor is configured to deactivate the indicated uplink resources in response to a MAC timer expiring”).

Even if a POSITA would have understood that it would be obvious that “the WTRU [of Zeira] required some form of controller or processor to perform the signal processing operations as described,” as Petitioner contends (*see* Pet. at 15), this does not mean that such a processor would be configured according to the invention of the '838 Patent. Indeed, because Zeira does not disclose any processor (indeed, Petitioner concedes as much, *see* Pet. at 15-17), it certainly does not disclose or render obvious functions of a processor outside its disclosures of WTRU functionality. And as described above, a disclosure of a MAC timer is entirely absent from the teaching of Zeira; a duration for a temp-DCH channel is not the same thing as a MAC timer.

Petitioner's citations are inapplicable. Paragraph 6 of Zeira simply states “[a]fter the duration expires, the channel is automatically released by both the user

and the network” (no mention of how this is done or the use of a MAC timer expiring); paragraph 34 simply states “[a]fter that duration, the DCH is automatically released and the connection is returned to common channels” (no mention of how this is done or the use of a MAC timer expiring); paragraph 428 simply states “the duration of the previously allocated temp-DCH will expire” (no mention of how this is done or the use of a MAC timer expiring); and paragraph 440 simply states that “[a]t the end of the duration, the WTRU 500 releases the temporary dedicated physical channels” (no mention of how this is done or the use of a MAC timer expiring). And at Figure 8B, Zeira simply states that “duration ends.” Again, this does not render obvious a processor configured to use a MAC timer and especially not one “to deactivate the indicated uplink resources in response to a MAC timer expiring” as required by claim 1.

Claim 6 suffers similar deficiencies: for the same reasons as with claim 1, Zeira fails to teach or render obvious the requirement of “deactivating, by the WTRU, the indicated uplink resources in response to a MAC timer expiring, wherein the MAC timer is configured based on the MAC timer information indicated by the received RRC message.” *See* '838 Patent at claim 6. Zeira provides no teaching of deactivating uplink resources as a result of a MAC timer expiring.

Therefore, for this reason too Zeira fails to render obvious the invention of claims 1-10 of the '838 Patent.

4. *Petitioner's Reliance on Dr. Lo Should be Afforded Little Weight*

Especially with regard to the deficiencies concerning a MAC timer discussed above, Dr. Lo provides largely conclusory opinions that mirror the Petition's language, restating arguments and assertions made by Petitioner's counsel often nearly verbatim, without offering sufficient independent analysis, supporting data, or reasoning grounded in specific evidence beyond the Petition's own assertions, and any additional background provided does not go to a presently-contested element.

A comparison of the Petition and Dr. Lo's declaration in relevant part is instructive:

<p style="text-align: center;">Petition at 27-29</p>	<p style="text-align: center;">Dr. Lo's Declaration (EX1003) at ¶¶ 110-13</p>
<p>MAC Timer: A POSITA would have further understood and found it obvious that the duration sent by the S-RNC to the WTRU indicates <i>MAC timer</i> information because the WTRU MAC layer is configured with this information. Zeira, ¶423; Lo, ¶¶110-113. For example, Zeira describes "...the C-RNC 506 or S-RNC 508 can calculate the time that MAC-d will need to transmit the current buffered data and set the duration accordingly." Zeira, ¶76.</p> <p>Further, Zeira discloses that the duration of the temp-DCH is calculated as a "multiple of the longest TTI length in the TFCS of the CCTrCH." Zeira, ¶79, <i>see also</i>, ¶¶77-78, 397. A POSITA would have understood that TTIs (transmission time intervals) are how the MAC in 3GPP controls access the physical transmission medium. Lo, ¶111, <i>see also</i>, <i>id.</i>, ¶¶81-87. Because temp-DCH duration is calculated as a multiple of TTIs, it would have been obvious that the duration communicated to and tracked by the WTRU is implemented as a <i>MAC timer</i>. <i>Id.</i>, ¶111.</p> <p>Finally, regardless of the above disclosure in Zeira, it would have been obvious to implement the temp-DCH duration as a <i>MAC timer</i> at the WTRU because the MAC fundamentally controls access to the transmission medium. <i>Id.</i>, ¶112. The MAC layer would thus be the most obvious place for controlling the duration of the temp-DCH – i.e., the channel through which the WTRU accesses the transmission medium. <i>Id.</i>, ¶112.</p> <p>A POSITA would have been guided by the teachings of Zeira and found it obvious that the duration information pertained to or indicated MAC timer information. <i>Id.</i></p> <p>Accordingly, Zeira discloses or suggests that the WTRU receiver and processor, e.g., medium access controller (<i>wherein the receiver and the processor</i>) receive an RRC message from the S-RNC (<i>are configured to receive at least one radio resource control (RRC) message</i>) that comprises channel information for the temp-DCH, including at least an indication of the spreading factors (<i>indicating uplink resources for WTRU</i>) and the duration for the temp-DCH, which is configured within the MAC layer (<i>and medium access control (MAC) timer information</i>). <i>Id.</i>, ¶113.</p>	<p>110. MAC Timer: A POSITA would have further understood and found it obvious that the duration sent by the S-RNC to the WTRU indicates <i>MAC timer</i> information because the WTRU MAC layer is configured with this information. Zeira, ¶423. For example, Zeira describes "...the C-RNC 506 or S-RNC 508 can calculate the time that MAC-d will need to transmit the current buffered data and set the duration accordingly." Zeira, ¶76. A POSITA would have been guided by the teachings of Zeira and found it obvious that the duration information pertained to or indicated MAC timer information.</p> <p>111. Further, as I explained in Section VI.I (specifically, ¶¶ 74-78), a POSITA would have found it obvious to implement a timer controlling a temporary channel duration in the MAC layer. As I explained earlier, it was well known to a POSITA, and described in various 3GPP standard documents, that MAC layer handles the timing aspect related to subframes or TTIs. Indeed, Zeira discloses that the duration of the temp-DCH is calculated as a "multiple of the longest TTI length in the TFCS of the CCTrCH." Zeira, ¶79, <i>see also</i>, ¶¶ 77-78, 397. And a POSITA would have understood that TTIs (transmission time intervals) are how the MAC in 3GPP controls access the physical transmission medium. Therefore, Zeira's explanation about how temp-DCH duration is calculated as a multiple of TTIs, would have further confirmed and made it obvious that the duration communicated to and tracked by the WTRU would be implemented as a MAC timer.</p> <p>112. While the above explanations in Zeira would have been a clear indication that the timer can be implemented at the MAC layer, a POSITA would have found this obvious to begin with, because a POSITA would have known that the MAC fundamentally controls access to the transmission medium. To re-iterate, I have provided these explanations in Section VI.I of this Declaration. The MAC layer would thus be the most obvious place for controlling the duration of the temp-DCH – i.e., the channel through which the WTRU accesses the transmission medium.</p> <p>113. Accordingly, Zeira discloses or suggests that the WTRU receiver and processor, e.g., medium access controller (<i>wherein the receiver and the processor</i>) receive an RRC message from the S-RNC (<i>are configured to receive at least one radio resource control (RRC) message</i>) that comprises channel information for the temp-DCH, including at least an indication of the spreading factors (<i>indicating uplink resources for WTRU</i>) and the duration for the temp-DCH, which is configured within the MAC layer (<i>and medium access control (MAC) timer information</i>).</p>

The above examples are exemplary, but pervade Dr. Lo's declaration generally.

Such parroting of attorney argument diminishes the weight, if any, that should be accorded to the testimony. *See Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624,

Paper 12 (PTAB Feb. 10, 2023) (precedential) (according “little weight” to declaration testimony that contains a verbatim restatement of a petition’s conclusory assertions); *Facebook, Inc. v. Windy City Innovations, LLC*, 973 F.3d 1321, 1340–41 (Fed. Cir. 2020) (affirming Board decision giving no weight to expert testimony that “merely repeated Petitioner’s argument, nearly verbatim, without citation to the basis for his testimony”); *see also Wowza Media Sys., LLC v. Adobe Sys. Inc.*, IPR2013-00054, Paper 12 at 12 (PTAB Apr. 8, 2013) (“The Declaration . . . appears, for the most part, simply to track and repeat the arguments for unpatentability presented in the Petition [and] . . . is therefore no more helpful tha[n] the Petition in determining where the challenged recitation is found in the references.”). This practice raises concerns under 37 C.F.R. § 42.65(a). *See* 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

Accordingly, Dr. Lo’s declaration should be afforded little weight and does not cure the deficiencies of Zeira.

B. Ground 2: Petitioner Fails to Establish that Yi Cures the Deficiencies of Zeira.

The basis of Ground 2 is weak. Similar to Zeira, Yi does not disclose a MAC timer that “is configured based on the MAC timer information indicated by the received RRC message,” as required by claims 1 and 6 of the ’838 Patent. Yi

discloses an entirely different type of timer, an inactivity timer, and not one that tracks a duration for a channel to be maintained. As such, Yi does not cure the deficiencies of Zeira, and there would not even be any motivation to combine Yi's inapplicable teachings with Zeira.

At most, Petitioner points to disclosures in Yi about a different type of timer (an inactivity timer), but there is no suggestion in Yi (or Zeira) to look to Yi's disclosures to establish a MAC timer using information in an RRC message in the context of deactivating indicated uplink resources. More specifically, Yi concerns a multimedia broadcast/multicast service (MBMS). *See* EX1006 at ¶ [0015]. Petitioner points to Yi at Paragraph 39, which discloses that “[p]referably, a particular entity provided in the mobile terminal can operate a timer for the data unit of a particular MBMS service. This entity can be located in the second layer (L2) of the radio protocol, and may be a MAC entity, a RLC entity, or a PDCP entity.” *See* Pet. at 51. But Paragraph 39 then goes on and provides context to this statement: “If this entity in the mobile terminal operates a timer for a single data unit of the broadcast or multicast service, and then does not receive another data of the broadcast or multicast service before the timer expires, the entity in the mobile terminal reports the timer expiration to the RRC in the mobile terminal.” EX1006 at ¶ [0039]. This context is confirmed by preceding paragraphs 37 and 38:

[T]he mobile terminal triggers a timer when a data unit of the particular MBMS service is received, and the mobile terminal releases the established point-to-multipoint RB if another data unit of the particular MBMS service is not received by the time the timer has expired.

Preferably, when another data unit is received before the timer has expired, the mobile terminal initializes and re-triggers the timer.

Id. at ¶¶ [0037]-[0038].

In other words, Yi discloses an inactivity timer (and moreover one for a downlink), not a timer used to set the duration of an uplink communication channel. As confirmed by preceding paragraphs 37 and 38, Yi concerns the use of a predetermined timer that tracks the last reception of data, and releases the MBMS when the timer expires. *See* EX1006 at ¶¶ [0037]-[0039]. Even if this timer may exist in the MAC layer, in no way is this a teaching of a MAC timer established using information in an RRC message that controls the duration of uplink resources for transmitting uplink data. Yi instead concerns a preexisting inactivity timer that is continually reset by incoming data. EX1006 at ¶¶ [0037]-[0039].

Furthermore, because Yi concerns a predetermined inactivity timer, there would be no reason to implement its teachings in combination with Zeira in the manner suggested by the Petition. Zeira, at most, discloses the S-RNC computing a duration of a temp-DCH but lacks any disclosure of the specific way that a WTRU

might use this information. The inactivity timer of Yi would be of little help, because inactivity has nothing to do with the pre-calculated duration that Zeira discloses as being transmitted. Petitioner suggests no reason why this incompatibility would lead to an obvious combination. Simply recognizing that this different form of timer in Zeira that measures the WTRU's own actions is instituted in the MAC layer is not enough.

Ultimately, the inactivity timer of Yi is very similar to the inactivity timer of U.S. Patent Application Pub. No. 2008/0117891 ("Damnjanovic") (EX2002) already considered by the examiner. According to Damnjanovic, a WTRU (or UE) may send data based on a resource assignment, set a timer to a predetermined time period after sending the data, send more data if available and if the timer has not expired, reset the timer after sending more data, and relinquish the resource assignment when the timer expires. *See* EX2002 at ¶ [0064]. The examiner recognized as persuasive the argument that "Damnjanovic is silent regarding any teaching or suggestion regarding receiving a RRC message indicating timer information as recited in the pending independent claims." *See* EX1002 at 275, 476. So too with Yi.

Thus, a POSITA would not have found the invention of the '838 Patent obvious in view of Zeira and Yi. The deficiencies of Zeira detailed for Ground 1—

namely, no disclosure or suggestion of using information in an RRC message to configure a MAC timer that will deactivate the indicated uplink resources when it expires—would not have been cured by Yi, because Yi offers various timers (using “a MAC entity, a RLC entity, or a PDCP entity”) that are “initialize[d] and re-trigger[ed]” “when another data unit is received before the timer has expired.” EX1006 at ¶¶ [0037]-[0039]. None of the timers taught by Yi track a particular duration of a temp-DCH channel as taught by Zeira and thus would not be obvious to combine with Zeira and would not lead to the claimed invention of the '838 Patent.

Accordingly, Petitioner has not shown a reasonable likelihood that claims 1-10 of the '838 Patent are invalid in view of Zeira and Yi. Teague (EX2004), Lee (EX2003), and Damnjanovic (EX2002), already considered by the examiner, disclose all aspects of the prior art now pointed to by Petitioner, and these disclosures fall short of disclosing or rendering obvious the claimed invention.

VI. CONCLUSION

For at least the foregoing reasons, the Board should deny institution.

Case IPR2025-00763
Patent No. 11,212,838
Patent Owner's Preliminary Response

Dated: September 15, 2025

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CERTIFICATE OF SERVICE

I hereby certify that on this 15th day of September, 2025, a copy of the attached **PATENT OWNER'S PRELIMINARY RESPONSE** was served by electronic mail to the attorneys of record, at the following addresses:

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CERTIFICATION PURSUANT TO 37 C.F.R. § 42.24(d)

Pursuant 37 CFR 42.24(d), the undersigned certifies that this Preliminary Response complies with the type-volume limitation of 37 CFR §42.24(a). The word count application of the word processing program used to prepare this Preliminary Response indicates that the Preliminary Response contains 5,633 words, excluding the parts of the brief exempted by 37 C.F.R. § 42.24(a).

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