

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,

Petitioner,

v.

INTELLECTUAL VENTURES II LLC,

Patent Owner.

Case No. IPR2025-00221
U.S. Patent No. 11,664,889

PATENT OWNER'S SUR-REPLY

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PATENT OWNER'S EXHIBIT LIST

EX2001	Petitioner's Answer to Complaint and Counterclaim, dated June 20, 2024, in <i>Intellectual Ventures II LLC v. Tesla, Inc.</i> , C.A. 1:24-cv-00884-ADA (W.D. Tex.)
EX2002	Docket from District Court Litigation, <i>Intellectual Ventures II LLC v. Tesla, Inc.</i> , C.A. 1:24-cv-00884-ADA (W.D. Tex.)
EX2003	Scheduling Order from District Court Litigation, <i>Intellectual Ventures II LLC v. Tesla, Inc.</i> , C.A. 1:24-cv-00884-ADA (W.D. Tex.)
EX2004	Defendant's Second Supplemental Preliminary Invalidity Contentions, dated January 9, 2025, in District Court Litigation, <i>Intellectual Ventures II LLC v. Tesla, Inc.</i> , C.A. 1:24-cv-00884-ADA (W.D. Tex.)
EX2005	EP 1681 780 (Dateki)
EX2006	File History of U.S. Patent Appl. 11/646,692
EX2007	File History of U.S. Patent Appl. 13/176,298
EX2008	File History of U.S. Patent Appl. 14/458,693
EX2009	File History of U.S. Patent Appl. 16/682,854
EX2010	File History of U.S. Patent Appl. 17/339,550
EX2011	File History of U.S. Patent Appl. 17/583,369
EX2012	File History of U.S. Patent Appl. 17/870,425
EX2013	Declaration of Dr. Gary Lomp In Support Of Patent Owner's Preliminary Response
EX2014	Resume of Dr. Gary Lomp
EX2015	TR 25.912 Feasibility Study for Evolved UTRA and UTRAN - Sept. 2006
EX2016	3GPP TR 21.905 V6.7.0 (2004-06)
EX2017	Declaration of Dr. Gary Lomp In Support Of Patent Owner's Response

I. INTRODUCTION

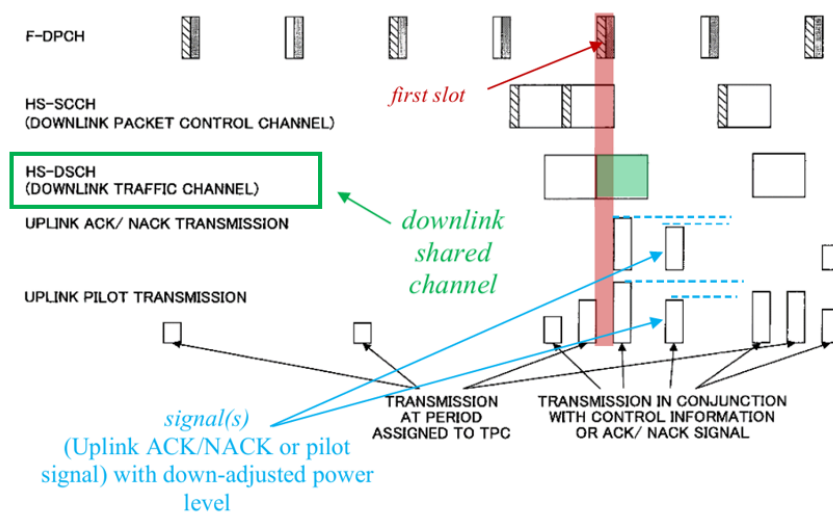
The Petition purported to map the embodiment of Figure 6 of Dateki to claim 1. However, neither the Petition nor the Reply engage with the express disclosures in Dateki, which are inconsistent with Petitioner's interpretation of that embodiment. Instead, the Reply pivots to a different embodiment from Dateki, i.e., Figure 5, which clearly fails to meet the claim language because, for example, Figure 5 of Dateki fails to disclose a "downlink shared channel," as required by Claim 1. Despite the fact that Dateki's disclosures of power control schemes in Figures 5 and 6 are significantly different, the Reply attempts to fill gaps in its mappings of Figure 6 by quoting out of context aspects of Dateki's discussion of Figure 5 in a manner suggesting that those quotations pertain to Figure 6, which is not the case.

In Ground 1, the Petition relied solely on Dateki for all of the elements of claim 1 and, as such, it was Petitioner's burden to demonstrate that Dateki disclosed or taught all of the elements of the claim arranged in the same manner set forth in the claim. The Reply cannot satisfy that burden by cherry-picking features from disparate embodiments of Dateki and then combining such features in a manner unsupported by the reference. For these reasons, and as explained more fully below, the Board should find that the Petitioner has failed to carry its burden to demonstrate that any of the challenged claims are unpatentable.

II. GROUND 1

A. THE REPLY FAILS TO ENGAGE WITH THE EXPRESS DISCLOSURES IN DATEKI THAT CONTRADICT PETITIONER'S INTERPRETATION OF FIGURE 6

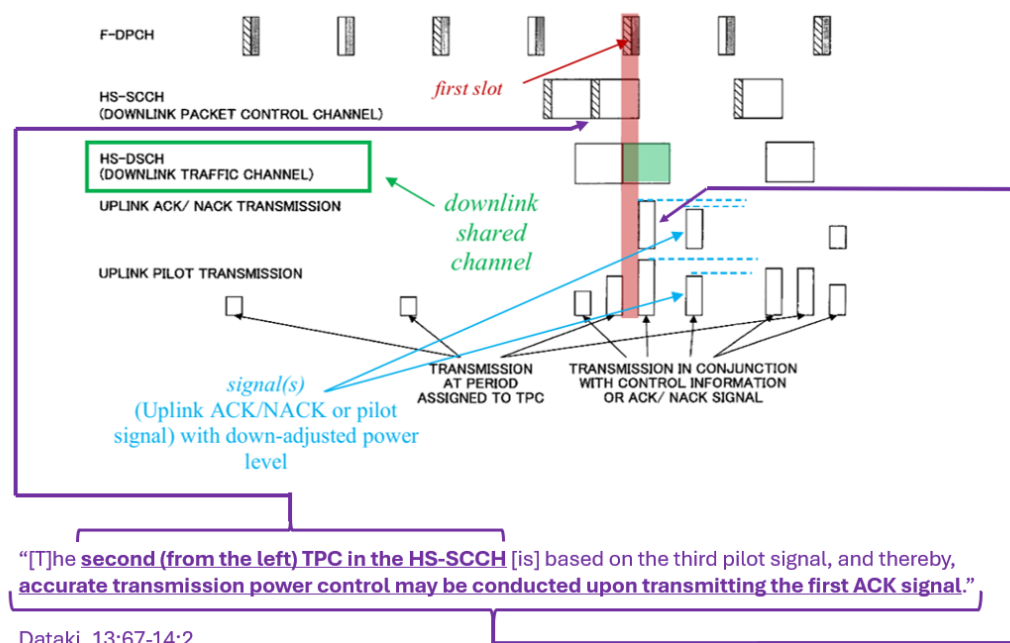
For Element [1.2], the Petition (at 30-34) mapped the “control message ... in a first time slot” to a “TPCA control message” on the fractionated dedicated physical control channel (F-DACH) depicted in Figure 6 of Dateki, as shown in the red highlighting and with arrow labelled “first slot” below. Next, for Element [1.3] which requires that “the first time slot also includes a downlink shared channel,” the Petition (at 35-36) mapped the “downlink shared channel” to the “High-Speed Downlink Shared Channel” (HS-DSCH) in Figure 6 of Dateki, as shown by the green annotations below.



Then, for Element [1.6], the Petition (at 39-43) alleged that power level of the ACK/NACK and pilot signals (blue annotations above) were down-adjusted *based on the “TPC control message” on the F-DPCH* (red arrow) identified in Element

[1.2]. However, the Petition failed to present any evidence (other than the conclusory assertion of its expert which is entitled to no weight) that, in Figure 6 of Dateki, the power level of the identified ACK/NACK and pilot signals were down-adjusted based on the “TPC control message” on the F-DPCH. See POR, 54-57. That is because Dateki fails to disclose that this is the case.

The Reply fails to engage with Dateki’s disclosure of Figure 6 which explicitly states that the “second from left TPC in the HS-SCCH” – rather than the power control message identified by the Petitioner on the F-DPCH in the “first slot” – provides for “accurate transmission power control of the first ACK signal” as well as the pilot signal transmitted at the same time. See, POR, 51-56. This disclosure from Dateki is set forth (in purple text) below and illustrated with the purple annotations (added by Patent Owner).



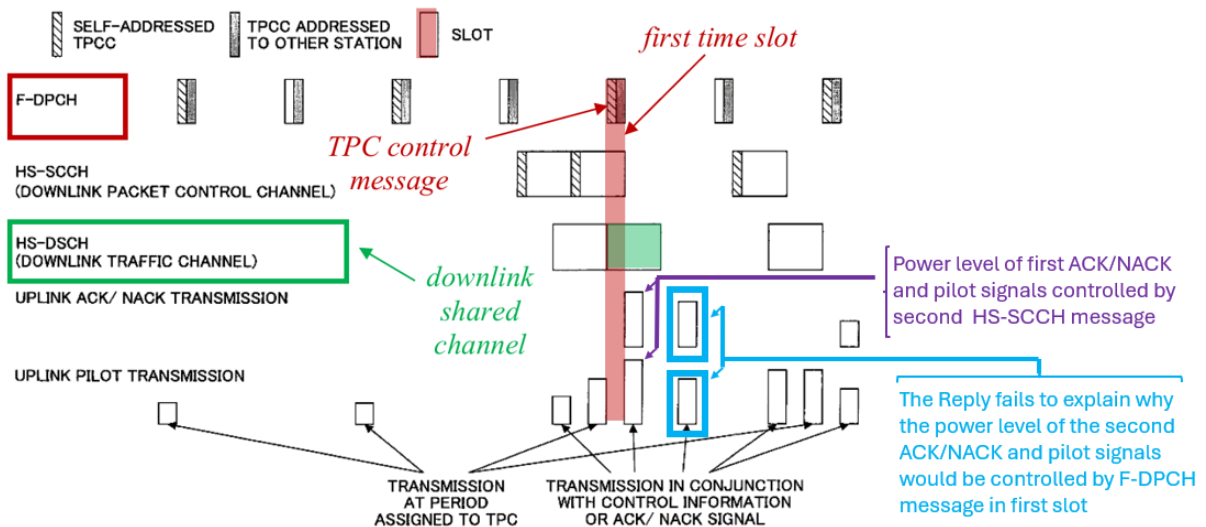
As previously explained in the POR (at 38-39, 45-48, 55-57) and illustrated in **purple** above, Dateki discloses that the “second from left TPC in the HS-SCCH” is what provides for “accurate transmission power control of the first ACK signal.” Ex. 1005, 13:67-14:2 (emphasis added). This express disclosure from Dateki cannot be squared with the assertion in the Reply “that power control bits in the F-DPCH channel are always for power control,” because Dateki does not say that the intervening F-DPCH bits transmitted in the “first slot” (highlighted in red in the diagram above and transmitted subsequent to the “second from left TPC in the HS-SCCH”) are used to control the transmission power of “the first ACK signal.” On the contrary, Dateki expressly discloses the opposite by stating that the “second from left TPC in the HS-SCCH” – rather than the intervening F-DPCH bits transmitted in the “first slot” – provides for “accurate transmission power control of the first ACK signal.” Ex. 1005, 13:67-14:2 (emphasis added). The Reply completely fails to engage with this express disclosure of Figure 6 of Dateki, which was discussed throughout the POR. See, e.g., POR at 38-39, 45-48, 55-57.

The Reply also fails to engage with the following express disclosure of Figure 6 of Dateki:

It is noted that the reception of the HS-PDSCH and the transmission of the ACK/NACK signal are conducted in conjunction with the reception of the HS-SCCH, and thereby, in either case, the known signal is transmitted in conjunction with the reception of the HS-SCCH. Ex. 1005, 12:61-65 (emphasis added).

Here again, Dateki discloses that in Figure 6, power control of both the first ACK and corresponding pilot signal (or “known signal”) is based on the power control information sent on the HS-SCCH (rather than information sent on the F-DACH). See also, EX1005, 12:48 (equating “known signal” with “pilot signal”) and 13:57-62 (“[I]n transmitting the ACK/NACK signal ... the second transmission power control information TPCC2 that is previously received via the HS-SCCH may be used to swiftly control the transmission power”).

The gap in Petitioner’s analysis is illustrated in the annotated diagram below, which depicts (with purple annotations) Dateki’s disclosure that the power level of the first ACK/NACK and corresponding pilot signal in Figure 6 are adjusted based on the power control previously received via the HS-SCCH.



The Reply fails to explain why the power level of the second ACK/NACK signal and its corresponding pilot signal would be based on information on the F-DPCH in

the “first slot,” when the power level of the first ACK/NACK signal (and its corresponding pilot signal) immediately following transmission of such information on the F-DPCH was not based on such information on the F-DPCH.

B. THE REPLY QUOTES OUT OF CONTEXT DATEKI’S DISCUSSION OF FIGURE 5 AND ERRONEOUSLY CLAIMS THAT THOSE QUOTATIONS DESCRIBE THE EMBODIMENT OF FIGURE 6

In addition to the embodiment of Figure 6 of Dateki relied on in the Petition, Dateki includes a different embodiment in Figure 5 that clearly fails to meet the claim language. For example, while Figure 5 of Dateki includes a generic downlink traffic channel (labelled “TCH”), the embodiment of Figure 5 fails to disclose that the TCH is a “downlink shared channel,” as required by Claim 1. In addition, while the embodiment of Figure 5 includes a generic dedicated control channel (labelled “DCH”), the embodiment of Figure 5 lacks the fractionated dedicated physical control channel (F-DPCH) depicted in Figure 6 of Dateki which the Petition relied on for its mapping of Element [1.2].

The Reply (at 3) alleges that “Dateki is explicit that power control bits in the F-DPCH channel are always used for power control to enable ‘high-pace transmission power control’” emphasis added). In an attempt to support this erroneous allegation, the Reply (at 3) cites to Dateki at 11:59-63 – which is part of Dateki’s description of Figure 5 -- which does not even include a F-DPCH.

Moreover, the cited passage does not say that the power control bits in the F-DPCH channel (which is in Figure 6) are always used for power control, and the assertion in the Reply that Dateki is “explicit” on this point is just plain false.

Continuing with its tactic of out of context quotations, the Reply (at 8) alleges that “Dateki’s FIG. 6 and the corresponding text show that TPCC information is provided on **both** channels to quickly adjust transmission power when HS-SCCH is active.” In support of this false assertion, the Reply (at 8) again cites to Dateki at 11:59-63 – which is part of Dateki’s description of Figure 5 -- which does not even include an HS-SCCH. Again, the cited passage does not say or even suggest that the power control bits in the F-DPCH channel (in Figure 6) are always used for power control. As a backup, the Reply (at 8) cites to Dateki as 12:11-12 which merely states that, in Figure 6, “[t]he TPC bit (transmission power control information) is transmitted via the F-DPCH and HS-SCCH” (emphasis added). However, the fact that power control information is transmitted on both channels at different times in Figure 6 does not demonstrate that the power level of the particular signals identified in the Petition, i.e., the second ACK/NACK signal and its corresponding pilot signal in Figure 6, are based on information sent on the F-DPCH as opposed to the HS-SCCH.

Petitioner’s out of context quotations continue in the Reply (at 10) where Petitioner alleges that “Dateki is also clear that the UE **uses** both TPCC1 and TPCC2

to adjust the mobile station's transmission power for uplink signals during packet transmission (when HS-SCCH is active)" (emphasis in original). In support of this erroneous assertion, the Reply (at 10-11) quotes Dateki at 6:61-7:4 – which is not part of Dateki's description of Figure 6. In contrast to Petitioner's allegation that "both TPCC1 and TPCC2 [are used] to adjust the mobile station's transmission power for uplink signals during packet transmission (when HS-SCCH is active)" -- the quoted passage makes no mention of an HS-SCCH such as that used in the embodiment of Figure 6 and is untethered to Dateki's discussion of Figure 6, which does not occur until much later in the reference. Moreover, the quoted passage only speaks of the fact that TPCC1 and TPCC2 are transmitted at certain times, but does not say that they are both used when the HS-SCCH is active to adjust the mobile station's transmission power as alleged in the Reply. Again, even if the subject statement applied to Figure 6 (to be clear, it does not), the fact that power control information is transmitted on both channels at different times does not demonstrate that the power level of the particular signals identified in the Petition, i.e., the second ACK/NACK signal and its corresponding pilot signal in Figure 6, are based on information sent on the F-DPCH as opposed to the HS-SCCH.

Petitioner's reliance on aspects of Dateki unrelated to Figure 6 continues in the Reply (at 11) where Petitioner alleges that "Dateki explains that the purpose of sending TPC commands on two channels is to allow for faster, more frequent power

level adjustments during packet transmission.” For support, the Reply cites to Dateki at 11:56-65, which again is part of Dateki’s description of *Figure 5* rather than Figure 6. Moreover, even if the subject statement applied to Figure 6 (to be clear, it does not), the passage would not demonstrate that the power level of the second ACK/NACK signal and its corresponding pilot signal in Figure 6 is based on information sent on the F-DPCH in the “first slot,” given that the first ACK/NACK signal (and its corresponding pilot signal) following transmission of such information sent on the F-DPCH in the “first slot” was not based on the information sent on the F-DPCH in the “first slot.”

**C. PETITIONER CANNOT USE ASPECTS OF DATEKI’S
FIGURE 5 EMBODIMENT TO MODIFY DATEKI’S
DISCLOSURE OF DATEKI’S FIGURE 6 EMBODIMENT**

The Reply (at 12-15) attempts to replace the way Dateki uses TPCC1 and TPCC2 in the embodiment of Figure 6 with the way Dateki uses such information in Figure 5 because Dr. Lomp allegedly agreed that Figure 5 “looks very similar” to Figure 6. Ex. 1069, 82:13-15. However, in the same sentence, Dr. Lomp noted that Figure 5 has “different verbiage associated with it,” meaning that the embodiments operate differently. *Id.* In fact, after Dateki concludes its discussion of Figure 5 at 11:65, Dateki begins its discussion of Figure 6 which spans four columns of the reference, from 11:65-14:58. If Figure 5 operated “very similarly” to Figure 6 as the Reply suggests, Dateki would have been able to follow its discussion of Figure 5

with a brief description of Figure 6 focusing on the differences between the two “very similar” embodiments. In other words, Dateki would not have needed to follow its discussion of Figure 5 with a discussion of Figure 6 that spanned four columns had the embodiments of Figures 5 and 6 operated “very similarly.” Clearly, they do not.¹

In Ground 1, the Petition relied solely on Figure 6 of Dateki for all of the elements of claim 1 and, as such, it was Petitioner’s burden to demonstrate that Figure 6 of Dateki disclosed or taught all of the elements of the claim arranged in the same manner set forth in the claim. Petitioner failed to do so, as pointed out in Patent Owner’s Response. Realizing this fact, Petitioner now attempts to cherry-pick features from Figure 5 of Dateki to modify the embodiment of Figure 6. There is not even the allegation – let alone evidence -- that Dateki contemplated this hindsight-driven mixing and matching of features from different embodiments.

¹ The Reply (at 19) states that “IV does not explain why FIG. 6’s use of both TPCC1 and TPCC2 should be understood any differently than FIG. 5.” By way of example, in connection with the embodiment of Figure 6 (but not the embodiment of Figure 5), Dateki expressly discloses that the “second from left TPC in the HS-SCCH” is what provides for “accurate transmission power control of the first ACK signal” and that “the reception of the HS-PDSCH and the transmission of the ACK/NACK signal are conducted in conjunction with the reception of the HS-SCCH.” Ex. 1005, 12:61-65, 13:61-14:2 (emphasis added). This disclosure by Dateki in connection with only Figure 6 demonstrates why “FIG. 6’s use of both TPCC1 and TPCC2 should be understood [] differently than FIG. 5.”

D. THE REPLY FAILS TO SUPPORT ITS ASSERTION THAT POWER CONTROL INFORMATION ON THE HS-SCCH IS USED TO “SUPPLEMENT” POWER CONTROL INFORMATION ON THE F-DPCH

The Reply (at 8) goes on to allege “that HS-SCCH TPCC information (“TPCC2”) may be used to *supplement* the relatively infrequent transmissions of TPCC1 on F-DPCH” (emphasis in original). For this point, the Reply relies on Dateki at 12:66-13:15, which states:

[the base station] “transmits the transmission power control information TPCC via the F-DPCH as first transmission power control information TPCC at relatively long periodic intervals (transmission period of the present mobile station)” and “*in a case where packet transmission is conducted, the* transmission power control information is transmitted via the HS-SCCH as second transmission power control information TPCC at a shorter periodic cycle” (emphasis added).

This passage does not say that the transmission power control information on the HS-SCCH is provided as a “supplement” to the power control information on the F-DPCH. Rather, the passage states that “in a case where packet transmission is conducted, the transmission power control information” (*singular*) “is transmitted via the HS-SCCH.” The notion that, when packet transmission is conducted, transmission power control information on the HS-SCCH is provided as a “supplement” to the power control information on the F-DPCH is neither expressly nor inherently set forth in the cited passage. On the contrary, a more coherent reading of the subject passage is that (i) when packet transmission is not conducted, the

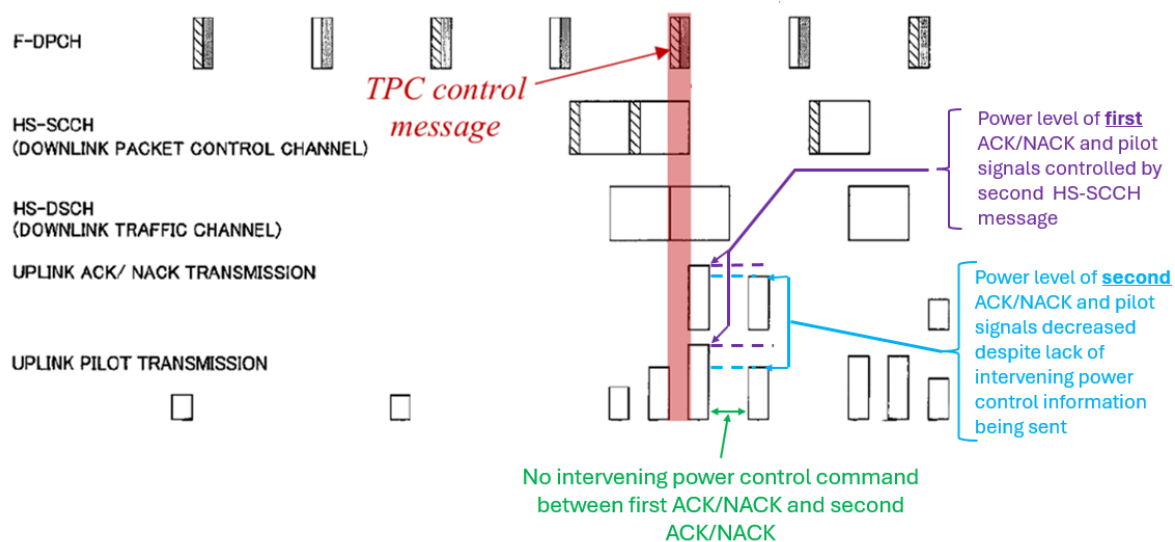
transmission power control information” (*singular*) is transmitted “via the F-DPCH,” and, alternatively, (ii) when packet transmission is conducted, the transmission power control information” (*singular*) is transmitted “via the HS-SCCH.”

E. THE REPLY FAILS TO EXPLAIN HOW FIGURE 6 OF DATEKI COULD OPERATE WITHOUT PLURAL-STAGE POWER CONTROL MESSAGES

As explained in the POR (at 37-40), Dateki discloses that the transmission of TPCC2, “may be arranged to use plural bits so that transmission power control may be conducted in *plural stages* (i.e., so that transmission power may be increased or decreased in plural stages).” EX1005, 11:15-18 (emphasis added). Using “plural bits” from one power control message to increase/decrease transmission power in “plural stages” means, for example, that power control bits from one power control message (e.g., a TPCC2 message sent on the HS-SCCH) are used by the mobile station to adjust the transmission power in stages over multiple subsequent transmissions. EX2017, ¶87.

While the Reply faults Patent Owner’s position with respect to the use of plural-stage power control commands in Figure 6 of Dateki, the Reply fails to engage with the fact that the only explanation (supported by Dateki) for the functionality shown in Figure 6 is the use of a power control message with sufficient information to increase/decrease transmission power in “plural stages.” Depicted below is an annotated version of Figure 6 which reiterates (in purple) Dateki’s disclosure that

the power levels of the first ACK/NACK and pilot signals are controlled by second HS-SCCH message. The figure also shows (in blue) that the power level of the second ACK/NACK (and its corresponding pilot signal) is decreased relative to that of the first ACK/NACK (and its corresponding pilot signal) despite the lack of any intervening power control information being sent between the first ACK/NACK and second ACK/NACK.



Like the Petition, the Reply fails to engage with this evidence, or present any explanation how the system of Figure 6 could have known to adjust downward the power level of the second ACK/NACK (and its corresponding pilot signal) (in blue) despite the lack of any intervening power control information being sent between the first ACK/NACK and second ACK/NACK in the absence of a prior power control message that carried sufficient information to increase/decrease transmission power in “plural stages.”

F. THE REPLY’S ASSERTION THAT DATEKI FAILS TO DISCLOSE PLURAL STAGE TPC COMMANDS IN CONNECTION WITH FIGURE 6 IS INCORRECT

The Reply (at 16) alleges that “nowhere does Dateki suggest that any plural stage TPC commands are transmitted in FIG. 6.” That is incorrect. In connection with Figure 6, Dateki discloses that “transmission power control may be realized by a control unit (not shown)” according to “the wireless communication apparatus shown *in FIG. 4*.” Ex. 1005, 12:41-45 (emphasis added). Dateki’s description of “the wireless communication apparatus” of *Figure 4* in turn expressly disclosed that “the transmission power control information TPCC may be arranged to use plural bits so that transmission power control may be conducted in plural stages (i.e., so that transmission power may be increased or decreased in plural stages). *Id.*, 11:14-18. By expressly tying transmission power control in the embodiment of Figure 6 to “the wireless communication apparatus shown in FIG. 4,” which included an explicit disclosure of plural stage TPC commands, Dateki not only suggested – but expressly disclosed – the use of plural stage TPC commands in the embodiment of Figure 6.

G. THE REPLY’S ASSERTION THAT DR. LOMP ADMITTED THAT DATEKI FAILS TO DISCLOSE HOW PLURAL STAGE TPC COMMANDS WOULD WORK IS FALSE

The Reply (at 17) alleges that “Dr. Lomp admitted that Dateki does not give enough information to explain how a plural stage TPC command would work in the

context of Dateki.” That assertion is utterly false. Dr. Lomp said no such thing. For its assertion, the Reply (at 17) cites to Dr. Lomp’s deposition (Ex. 1069) at 46:8-47:9 and 49:4-13. For completeness, Dr. Lomp’s deposition from 46:8-49:13 (which includes the portions cited in the Reply) is set forth below. As the Board can see from reading the transcript below, Dr. Lomp never “admitted that Dateki does not give enough information to explain how a plural stage TPC command would work” or testified to anything of the kind:

Q. ... Is it your understanding that adjustments to the transmit power level by TPC occur in fixed increments?

A. I don't really have an understanding specifically of that because I don't believe -- again, I'm going by memory here without referring to Dateki as I'm sitting here, but I don't believe there's a specification of the increments.

The -- the important thing, from my understanding here, is that there's a -- as paragraph 96 starts to explain, plural bits are sent, let's say, from that second TPCC2. And the plural bits can indicate many different patterns of increase and decrease.

So, you know, one thing that comes to mind is that there is a two-step increase followed by a back-off. You know, what patterns are available from the -- in -- in the system is probably a design choice, which is not specified in the spec of the patent, but it could be a wide range of patterns of increase and decrease or adjustment over multiple stages that are signaled by using plural bits.

And so I wouldn't read anything more into it than that there can be various patterns over multiple stages.

Q. Does Dateki say anything about patterns that those plural bits would indicate?

A. I don't know what word he uses. Let's see. I don't -- you want me to find his passage on that subject?

Q. Sure. ...

A. Okay. So I believe the relevant language is in column 9.

Q. Okay.

A. And, in particular, I guess it would be line 42 -- 40, which says, As is described below, TPCC may be arranged to conduct transmission power control in plural stages.

It doesn't use the word "pattern," but it says that there can be multiple adjustments. It doesn't use the word "adjustments," but I infer the word "adjustments" is meant there.

Q. I'm sorry. Which portion did you say?

A. I'm talking about column 9, line 40.

Q. Okay. Gotcha. 4 And those plural adjustments could be in fixed increments; is that correct?

A. Yeah, I think the specification is silent as to whether they're fixed increments or variable increments. But, yes, it could be fixed or variable.

When you have plural bits, obviously you have many, many degrees of freedom that could be signaled, depending on how much bandwidth you want to use to do that signaling.

The fact that the Petitioner felt the need make the utterly false assertion that “Dr. Lomp admitted that Dateki does not give enough information to explain how a plural stage TPC command would work in the context of Dateki” speaks volumes about the weakness of Petitioner’s position.

H. THE PETITIONER’S ALLEGATION THAT DATEKI’S PLURAL STAGE TPC COMMANDS ARE “NONSENSICAL” IS WRONG

Dateki expressly discloses the following with respect to plural stage TPC commands:

... As described below, the TPCC may also be arranged to conduct transmission power control in plural stages.

... It is noted that the *transmission power control information TPCC* may be arranged to use *plural bits* so that transmission power control

may be conducted in plural stages (i.e., so that transmission power may be increased or decreased in plural stages). Ex. 1005, 9:40-42, 11:13-18 (emphasis added).

Rather than addressing this express disclosure from Dateki, the Reply (at 19) characterizes this disclosure as “IV’s theory” and argues through Petitioner’s declarant that it “is nonsensical because it implies that a single TPC command carries contradictory instructions to both increase and decrease power.” However, Patent Owner never alleged that “a single TPC command carries contradictory instructions to both increase and decrease power,” but instead that a plural stage TPC command functioned to increase power in stages or decrease power in stages. The notion that the plural stage TPC command would include “contradictory instructions” is a strawman that Petitioner manufactured to distract from its failure of proof.

I. DATEKI EXPRESSLY DISCLOSES THAT THE PHRASE “TPC BIT” IS SHORTHAND FOR POWER CONTROL INFORMATION IN GENERAL

The Reply (at 17-19) argues that the power control commands described in connection with Figure 6 cannot be plural stage TPC commands (requiring more than one bit to transmit) because Dateki refers to each TPC command as a “TPC bit.” However, Dateki makes clear in conjunction with Figure 6 that it uses the phrase “TPC bit” as shorthand for transmission power control information in general. From Dateki:

The TPC bit (transmission power control information) is transmitted via the F-DPCH and HS-SCCH. Ex. 1005, 12:11-12 (emphasis added).

In addition to a “TBC bit,” in connection with Figure 6 Dateki separately refers to the power control messages with the acronym “TPCC” which stands for a Transmission Power Control Command, indicating that Dateki also uses “TBC bit” synonymously with TPCC. Ex. 1005, 13:3-21 (discussing transmission of “TPCC” over both the F-DPCH and HS-SCCH) and 8:38-39 (defining “TPCC” as “transmission power control information”). Furthermore, by expressly tying the transmission power control in the embodiment of Figure 6 to “the wireless communication apparatus shown in FIG. 4,” Dateki separately makes clear in connection with Figure 6 that “TPCC may be arranged to use plural bits so that transmission power control may be conducted in plural stages.” Ex. 1005, 11:13-18 (emphasis added) and 11:14-18 (tying transmission power control in the embodiment of Figure 6 to “the wireless communication apparatus shown in FIG. 4” which included an explicit disclosure of plural stage TPCC).

Perhaps the biggest flaw in the Reply’s theory that each TPC command in Figure 6 is somehow implicitly limited to a single bit is that this theory fails to explain the operation of the system actually depicted in Figure 6. As explained in Section II(E) above, the only way that the system of Figure 6 could have known to adjust downward the power level of the second ACK/NACK and pilot signals

despite lack of any intervening power control information being sent between the first ACK/NACK and second ACK/NACK is through the use of a prior plural stage power control message that carried sufficient information (or bits) to increase/decrease transmission power in “plural stages.” The Reply does not even attempt to explain how the system of Figure 6 would could have possibly known how to adjust downward the power level of the second ACK/NACK and pilot signals despite lack of any intervening power control information being sent between the first ACK/NACK and second ACK/NACK if each power control command in Figure 6 was limited to a single bit.

In summary, for the reasons set forth above, the Petitioner has failed to carry its burden in Ground 1 of proving unpatentability of any of the challenged claims.

III. GROUND 2

In Ground 2, the Petition set the foundation for its obviousness argument by alleging that “Dateki discloses that the mobile station is configured to transmit data.” Petition, 52. In the next sentence, the Petition argued that “it would have been obvious for the mobile station to transmit the uplink traffic data [i.e., Dateki’s uplink data traffic] over a physical shared channel.” *Id.* The Petition then alleged that “[a] POSITA would have found it obvious for Dateki’s uplink traffic data (data) to be transmitted using Mate’s pCPCH channel.” *Id.*, at 53. Thus, in order to carry its burden in connection with Ground 2, the Petition was required to demonstrate that a

POSITA would have been motivated to use Mate's pCPCH channel to carry Dateki uplink traffic data. Moreover, since the challenged claims in Ground 2 depend from claim 1, the Petitioner was further required to demonstrate that a POSITA would have been motivated to use Mate's pCPCH channel to carry Dateki's uplink traffic data in the context of the system disclosed in Figure 6 of Dateki.

The Reply does not dispute that "a POSITA would have understood that Mate's pCPCH was limited to carrying small of amounts of control information such as acknowledgements and commands." POR, 61, citing, Ex. 1009, [0043]. Based on that fact, the Patent Owner argued that a POSITA would not have been motivated to add Mate's pCPCH channel to Dateki's framework for the purpose of carrying Dateki's uplink data traffic data. The Reply criticizes Patent Owner's arguments, alleging that they impose requirements "not required by the claims." Reply, 1. However, the existence of a motivation to combine is distinct from the claim language itself, and one would not expect the rationale for a motivation to combine to be recited in the claim language. The Petitioner chose its theory of obviousness, and is required to prove it, regardless of whether the motivation to combine proposed in the Petition is recited in the claim language.

In connection with Figure 6, Dateki discloses that the mobile station transmits the uplink ACK/NACK on "a transmission channel corresponding to HS-DPCCH." Ex. 1005, 12:7-8, 12:30-32. Prior to describing Figure 6, Dateki defined "HS-

DPCCH” as a “High Speed-Dedicated Physical Control Channel.” *Id.*, 2:21-22. Given that Dateki already has a high-speed control channel for transmitting control information such as acknowledgements on the uplink, there would have been no need to supplement Dateki’s high-speed control channel with an additional control channel like Mate’s pCPCCH, which was limited to carrying small amounts of control information such as acknowledgements and commands. Ex. 1009, [0043]. The Petition did not allege, for example, that Dateki’s “High Speed-Dedicated Physical Control Channel” somehow lacked the capacity to carry on the uplink the small amounts of control information contemplated by Mate’s pCPCCH.

Given that Figure 6 of Dateki already had ample capacity to carry control information on the uplink, the POR turned to whether a POSITA would have been motivated to add Mate’s pCPCCH to Figure 6 of Dateki for a different purpose, namely for carrying uplink user data (rather than control data) within the framework of Figure 6 of Dateki. While the Reply quarrels with the precise amount of bandwidth that would have been required to support such a data traffic channel in the context of 3GPP, the Reply does not dispute the basic problem that Mate’s pCPCCH would have lacked sufficient capacity to implement a channel for carrying user data as set forth in the standard. Moreover, Dateki’s embodiment in Figure 6 is focused on high-speed communications both on the uplink (which includes the HS-DPCCH) and the downlink (which includes the HS-SCCH and HS-DSCH). The fact

that Mate's pCPCCH is severely limited in terms of data rate makes it unsuitable for the high-speed framework of Figure 6 of Dateki.

In summary, the Petitioner has failed to carry its burden in Ground 2.

IV. GROUND 3

Claim 4 recites:

The first UE of claim 1 wherein the transmitter and the processor are further configured to transmit the signal over the physical control channel when time synchronized and to transmit a signal over a random access channel when not time synchronized.

The Reply (at 3-5) makes several claim construction arguments, none of which have merit.

First, the Reply (at 3) alleges that the claims do not describe a binary choice but fails to provide any elaboration explaining why that is the case. When the UE is in a state where it is transmitting (a requirement of claim 4), it will either be “time synchronized” or “not time synchronized.” The claim language does not contemplate a third alternative.

Second, the Reply (at 3-4) alleges that the claims do not include “a prohibition against ever sending a signal over a physical control channel when there was not time synchronization.” That is incorrect. The claim requires transmission to occur over a random access channel when not time synchronized and permits transmission over the physical control channel only when time synchronized. Petitioner's

suggestion that the claim language permits sending the signal over a physical control channel when there was not time synchronization effectively re-writes the first portion of claim 4 to say that the UE transmits “the signal over the physical control channel when time synchronized or not time synchronized.” Petitioner’s assertion that claim 4 permits the UE to send the signal over the physical control channel in the absence of time synchronization effectively renders the synchronization requirement for transmission over the physical control channel a nullity.

Third, the Reply (at 3-4) argues that the claims do not require a step of transitioning from one channel to another. That too is incorrect. Claim 4 depends from claim 1, which is where the antecedent for “the signal over the physical channel” in claim 4 is introduced. Claim 1 recites that “the transmitter and the processor are configured to transmit a signal over a physical control channel” and claim 4 adds a further requirement that such transmission occurs at a point in time “when time synchronized.” Claim 4 separately requires that, at some other point in time “when not time synchronized,” the UE must transmit over a random access channel. As a matter of logic, the only way for a single UE to perform one action at a point in time “when time synchronized” and to perform a different action at another point in time “when time not synchronized” is if the UE transitions between a synchronized state and a non-synchronized state at some point.

The Reply does not dispute that Chitrapu (and Dateki) lack any teaching of what happens when a synchronized UE transmitting a signal over a physical control channel information (as required by the combination of claim 1 and 4) transitions to a non-synchronized state. Instead, the Reply pivots to a new argument, namely, that Dr. Kotzin previously testified “the UE moving out of an RRC connected state when it loses synchronization is consistent with 3G cellular technologies at the time.” Reply, 24. That is misleading, because what Dr. Kotzin actually said was that “[t]he *‘889 Patent’s description of* the UE moving out of an RRC connected state when it loses synchronization is consistent with 3G cellular technologies at the time. Ex. 1003, ¶48. In any event, the Petitioner cannot fill a gap in the disclosures of the relied on references by alleging that a UE moving back to the idle state due to losing synchronization was “well-known” where the only alleged support for that is the challenged patent’s own teaching.

Accordingly, the Petitioner has failed to carry its burden in Ground 3.

V. CONCLUSION

The Board should confirm the patentability of all of the challenged claims.

Respectfully submitted,

Dated: February 27, 2026

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CERTIFICATE OF COMPLIANCE WITH WORD COUNT

Pursuant to 37 C.F.R. § 42.24(d), I certify that this PATENT OWNER'S SUR-REPLY complies with the type-volume limits of 37 C.F.R. § 42.24(b)(1) because it contains 5,598 words, excluding the parts of this Patent Owner's Response that are exempted by 37 C.F.R. § 42.24(a), according to the word processing system used to prepare this Patent Owner's Sur-Reply.

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned certifies that pursuant to 37 C.F.R. § 42.6(e), a copy of the foregoing **PATENT OWNER'S SUR-REPLY** was served via email (as consented to by counsel) on February 27, 2026 to lead and backup counsel of record for Petitioner as follows:

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