

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,

Petitioner,

v.

INTELLECTUAL VETURES II, LLC,

Patent Owner

Case No. IPR2025-00219

U.S. Patent No. 9,706,500

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	Declaration of Gary Lomp
EX2006	Resume of Gary Lomp
EX2007	Notice of Allowance in U.S. Patent Appln. Serial No. 10/917,968
EX2008	IPR2018-01773 DECISION Instituting <i>Inter Partes</i> Review
EX2009	IPR2018-01773 ORDER <i>Granting</i> Joint Motion to Terminate
EX2010	Reserved
EX2011	Reserved
EX2012	Reserved
EX2013	3GPP TS 25.224 V5.9.0 (2005-12)

I. Petitioner does not establish the “allocation of an uplink resource” limitation because it never identifies a cognizable “allocation” tied to a specific “uplink resource” used for the recited transmission

The challenged claims require more than generic “control information” relevant to uplink operation. They require that the UE “receive, on a single physical channel, an allocation of an uplink resource,” and then “transmit an uplink signal on the allocated uplink resource.” Petition, 18–19; Reply, 8; POR, 44. That language requires Petitioner to identify (1) what the “uplink resource” is in the asserted system, (2) what it means to “allocate” that resource, and (3) where, when, and how the UE receives the allocation such that the subsequent uplink transmission is “on the allocated uplink resource.” Petition, 25; Reply, 8.

Petitioner never does that work. Instead, Petitioner simply equates the claimed “allocation of an uplink resource” with an “uplink signaling grant” and further equates that with Khan’s “scheduling grant.” Petition, 18–19; Reply, 8. But that relabeling does not satisfy Petitioner’s burden because it does not establish that the asserted “grant” actually constitutes an “allocation” of a specific “uplink resource” that the UE then uses for the recited transmission in the Andersson- or Zeira-based systems. Petition, 25; Reply, 8.

This gap is apparent in Ground 1. Petitioner relies on Khan to supply “scheduling grant(s)” sent on the downlink to “control reverse link ... packet access transmission,” and then treats those grants as the claimed “allocation of an uplink

resource.” Petition, 18–19; EX1005, ¶¶[0012], [0043]. But even in Khan, the “scheduling grant message” is presented as control information used to determine whether and how a wireless unit transmits a packet on the reverse link in an R-SCH frame “in response to” the scheduling grant. Petition, 25; EX1005, ¶[0036]. Petitioner never explains what “uplink resource” is allegedly “allocated” by that grant in the sense required by the claim (i.e., the resource “on” which the uplink signal is transmitted), as opposed to a generalized permission, rate, or transmission-control parameter that influences uplink behavior. Petition, 25; Reply, 8.

More importantly, Petitioner’s mapping for the “transmit on the allocated uplink resource” portion exposes the mismatch. To satisfy the transmission-on-the-allocated-resource requirement, the Petition does not point to an uplink transmission on a grant-allocated shared resource in Andersson. Instead, the Petition relies on Andersson’s statement that the UE transmits an uplink signal over an “assigned radio channel,” and then asserts that Andersson’s “assigned radio channel” transmission, “in view of Khan’s teaching of transmitting an uplink signal based on the received scheduling grant,” renders obvious transmitting “on the allocated uplink resource.” Petition, 25. That showing is deficient. It is a conflation of two different concepts: a semi-statically configured “assigned radio channel” (a pre-established channel configuration) versus a dynamically communicated allocation that identifies an uplink resource for the particular transmission. Petition, 25; POR, 44. Petitioner

never reconciles how an uplink transmission on a pre-assigned channel satisfies “on the allocated uplink resource,” where the “allocated uplink resource” is supposedly delivered by a “grant” transmitted to the UE. Petition, 25; Reply, 8.

The POR already explained the standards-driven reason this matters: in the WCDMA architecture Andersson describes, uplink transport channels and related configuration were set semi-statically through RRC signaling originating at the RNC, while the Node-B handled fast power control; by contrast, Khan’s scheduling-grant mechanism arises from a different architecture built around base-station-centric, slot-by-slot scheduling. POR, 44; EX1005, ¶¶[0043]–[0047]. Petitioner’s Reply does not cure the “allocation” defect; it merely restates that “allocation of an uplink resource (‘an uplink signaling grant’)” and “TPC command” would be transmitted on Andersson’s dedicated control channel “based on Khan.” Reply, 8. But calling something an “uplink signaling grant” does not establish that it allocates any defined uplink resource in Andersson or that the UE’s subsequent uplink transmission is “on the allocated uplink resource,” as the claim requires. Petition, 25; Reply, 8.

The same defect is even more stark in the Zeira grounds. The Petition’s treatment of the “allocation” requirement in the Zeira context does not identify any allocation mechanism at all. Rather than pointing to any disclosure in Zeira (or any combined teaching with Khan) describing a network-issued allocation of an uplink resource, the Petition asserts at a high level that Zeira’s baseband processing

“receive[s] intelligible data (such as an allocation of an uplink resource ...)” by processing signals “in the time slots and with the appropriate codes assigned to the communication burst.” Petition, 53. That is not a citation to a disclosed “allocation” of an uplink resource. It is, at most, a description that communications use assigned codes and time slots—i.e., that a communication has been configured in some fashion. Petition, 53. But “assigned codes” for a “communication burst” are not, without more, an “allocation of an uplink resource” received by the UE on a single physical channel in the manner the claims require, nor do they identify any specific uplink resource that is then used “for” the recited uplink transmission. Petition, 53; Reply, 8.

In short, Petitioner’s “simple combination” framing obscures a missing element. The Petition and Reply treat “allocation” as satisfied whenever there exists (i) some scheduling-grant concept somewhere in Khan and (ii) some uplink transmission on an “assigned radio channel” in Andersson (or a generic “assigned codes/time slots” statement in Zeira). Petition, 18–19; Petition, 25; Petition, 53; Reply, 8. That is not enough. The claims require an allocation of an uplink resource that the UE then uses for the claimed uplink signal, and Petitioner never identifies what that “uplink resource” is in Andersson or Zeira, never identifies an allocation field that designates it, and never ties the alleged “grant” to the specific uplink resource “on” which the UE transmits. Petition, 25; Reply, 8; POR, 44. Accordingly,

even if Petitioner could overcome the separate “single physical channel” and “accumulation enabled” defects, Petitioner still fails, as a stand-alone matter, to establish the “allocation of an uplink resource” limitation on the present record.

II. Petitioner’s “other bits / no redesign” reframing does not cure the Petition’s Khan-dependent defects

In the Reply, Petitioner argues that Patent Owner attacked a “strawman” involving “physical incorporation,” and insists that “no redesign is needed” because the combination “merely contemplates ... utilizing the existing ‘other bits’ in Andersson’s DPCCH for an uplink signaling grant, based on Khan’s teachings.” Reply, 9. That framing fails for a basic reason: the Petition did not rely on a free-floating, system-agnostic “concept” that scheduling information and TPC can coexist somewhere in the same general “channel.” The Petition’s mapping to the “single physical channel” limitation is expressly tethered to Khan’s HRPD-specific multiplexing mechanics—i.e., a MACIndex/Walsh-channel structure in which TPC and scheduling grants are carried either (i) “simultaneously” using orthogonal Walsh covers, or (ii) in different slots via time multiplexing. Petition, 18-19.

The Petition itself explains that Khan’s asserted “single physical channel” is a Walsh-channel identified by MACIndex, where a MACIndex “may ... carry the TPC bits in some slots and the scheduling grant in one or more of the remaining slots,” and it relies on that slot-separation disclosure as the way Khan allegedly teaches “on a single physical channel” carriage. Petition, 19; EX1005, ¶[0047]. In

parallel, the Petition also invokes Khan’s disclosure that, “[i]n order to support both the TPC bits and the scheduling grant ... simultaneously,” orthogonal Walsh covers “may be needed,” and that “it may also be possible to time-multiplex” the TPC bits and scheduling grant across different slots. Petition, 19; EX1005, ¶[0047]. Thus, according to the Petitioner’s own showing, Khan’s asserted “same channel” teaching is inseparable from a specific implementation choice: code separation (Walsh covers) or time separation (different slots), each of which is a nontrivial physical-layer design constraint and each of which carries consequences (e.g., reduced power-control frequency when time-multiplexed). EX1005, ¶[0047].

That is precisely why Petitioner’s “other bits” shorthand does not answer Patent Owner’s point. Even if Andersson’s DPCCH includes an “OTHER BITS” field, the Petition still must show—using record evidence—how a POSITA would implement Khan’s HRPD technique *in that field* while satisfying the challenged claims’ “on a single physical channel” requirement as properly construed. Patent Owner’s construction is not “bodily incorporation”; it is a scope point: “on a single physical channel” means on the same physical channel instance addressed to the UE for the relevant uplink transmission, “not merely in the same system across different channelization codes or different time slots.” POR, 16. On that construction, Khan’s two embodiments do not do the work Petitioner assigns them. In Khan’s Walsh-cover embodiment, “orthogonal Walsh covers” are used to carry TPC and scheduling

information “simultaneously,” which corresponds to distinct Walsh-covered channels, i.e., separate physical channels rather than a single shared channel instance to the UE. POR, 36-37; EX1005, ¶[0047]. In Khan’s time-multiplex embodiment, the information is placed in different slots (TPC in some slots, scheduling grants in others), so even if Petitioner calls the overall construct a “shared physical channel,” the claimed co-carriage “on a single physical channel” is not met because the grant and the TPC are separated in time and not provided together to the UE on the same physical-channel instance for the relevant uplink transmission. POR, 36-37; EX1005, ¶[0047].

The Reply therefore sidesteps, rather than rebuts, the key evidentiary problem: Petitioner’s “single physical channel” showing depends on HRPD-style multiplexing that either splits the information into different Walsh covers or into different slots, and the Reply does not explain how those mechanisms translate into a dedicated DPCCH “other bits” field while still satisfying the claim requirement as construed. Reply, 9; Petition, 18-19. Indeed, the Petition confirms that Petitioner is not relying solely on an “other bits can include anything” proposition; it uses Khan to supply the supposed “well known” manner of sending scheduling grants and TPC “on the same single physical channel,” and then asserts that it would have been obvious to “similarly transmit” the scheduling grant on Andersson’s DPCCH. Petition, 60. That conclusory “similarly transmit” bridge is exactly where the record

breaks: Khan’s “single channel” is defined by HRPD’s MACIndex/Walsh/slot mechanics, and Petitioner has not shown that those mechanics can be carried over into Andersson’s fixed DPCCH format without, at minimum, changing channelization or time-slot allocation in a way that Patent Owner has shown would be a substantial redesign and would defeat the claim’s “single physical channel instance” requirement.

III. Petitioner’s new “CDMA vs. GSM family” theory confirms, rather than moots, the incompatibility problems Patent Owner identified

In the Reply, Petitioner attempts to sidestep Patent Owner’s incompatibility showing by asserting that Patent Owner “mischaracterizes” Andersson as limited to WCDMA and Khan as limited to CDMA2000 HRPD, and that any WCDMA versus HRPD differences are therefore “moot.” Reply, 10–14. Dr. Kotzin’s Supplemental Declaration advances the same theme, contending that the combination should be analyzed under a generic “CDMA” umbrella and that there is “significant overlap” between the network types to which Andersson and Khan are applicable. Reply, 11–14; EX1072, ¶¶43–46. That maneuver does not rebut Patent Owner’s point. It instead confirms that Petitioner’s theory requires glossing over precisely the standards-driven architectural constraints that control whether a POSITA would have viewed the proposed modification as a predictable result. POR, 33–38.

Critically, Petitioner’s own supplemental evidence squarely acknowledges the kind of incompatibility Patent Owner has been describing. Dr. Kotzin now opines

that, as of the relevant period, wireless technologies fell into two “families,” CDMA and GSM, which were “generally incompatible,” and he uses that incompatibility to explain why phones built for one family often would not operate in the other. EX1072, ¶14. He further asserts that WCDMA (UMTS) is “part of the GSM family” even though it uses the CDMA multiple access technique, and he expressly states that, despite using CDMA, WCDMA is “not compatible” with CDMA-family technologies such as CDMA2000. EX1072, ¶17. Those admissions undercut Petitioner’s attempt to dismiss Patent Owner’s “WCDMA versus CDMA2000 HRPD” distinctions as mere labels. They confirm that the mere fact that two systems use CDMA techniques does not render their physical-layer control-channel formats, scheduling mechanisms, and control-plane divisions of responsibility interchangeable. EX1072, ¶¶14, 17.

That concession matters because Patent Owner’s incompatibility showing was never limited to a superficial “different standards bodies” point. Patent Owner explained that, in the WCDMA technology context that Andersson explicitly describes and depicts, uplink resources were semi-statically configured through RRC signaling originating at the RNC, while the Node-B handled fast, timing-critical power control, and that this architecture did not employ HRPD-style, base-station-centric, slot-by-slot downlink “scheduling grants” to allocate uplink resources in the manner Petitioner assumes. POR, 33–35. By contrast, Khan’s

disclosure is driven by the needs of reverse-link packet access systems employing a time-multiplexed slot structure, and it addresses how to carry scheduling grants (and TPC information) within that time-slotted control framework. POR, 24, 37–38; EX1005, ¶¶11, 43, 47. Petitioner’s Reply does not supply the missing bridge from these standards-specific realities to the challenged claim requirement; instead, it attempts to declare the issue irrelevant by reclassifying both references as “CDMA” generally. Reply, 10–14; EX1072, ¶¶43–46. But Dr. Kotzin’s own “family” analysis demonstrates why that move is analytically unsound: technologies can share CDMA techniques and yet still remain incompatible at the level that matters here, including the control-plane and physical-channel mechanisms Petitioner must rely on to meet the claimed “allocation of an uplink resource” and “power control information on a single physical channel” limitations. EX1072, ¶¶14, 17.

Petitioner’s new position also creates a tension in its own narrative. On the one hand, Petitioner argues that Patent Owner’s incompatibility showing is “moot” because Andersson is not limited to WCDMA and Khan is not limited to HRPD. Reply, 10–14. On the other hand, Petitioner relies on Dr. Kotzin’s newly emphasized “CDMA family versus GSM family” incompatibility to explain why WCDMA is distinct from CDMA2000, and why WCDMA’s association with the GSM family supports reading Andersson’s “CDMA or WCDMA” statement as differentiating distinct technologies. Reply, 11–13; EX1072, ¶¶14–17, 44. Properly understood,

that evidence supports Patent Owner: it reinforces that a POSITA would not have treated cross-family, standards-defined scheduling and control-channel schemes as freely swappable, particularly where (as here) the Petition’s combination premise depends on importing a slot-centric grant mechanism into a fixed-format dedicated control channel framework and claiming “predictable results” to that importation. POR, 33–38; Petition, 20–22.

Accordingly, Petitioner’s new “CDMA versus GSM family” discussion should be treated as corroborating the record that Patent Owner already developed: the relevant question is not whether Andersson and Khan can be described at a high level as involving “CDMA” techniques, but whether the Petitioner has articulated, with record support, a standards-consistent and predictable path to implementing Khan’s grant signaling approach in Andersson’s control-channel architecture without fundamental redesign. POR, 33–38. The Reply does not provide that path; it instead relies on generalized labels that Petitioner’s own expert admits are insufficient to establish compatibility at the architectural and physical-channel levels implicated by the relied on references.

IV. “On a single physical channel” must mean a single channel instance to the UE, not different Walsh covers or different time slots

Patent Owner’s construction of “on a single physical channel” is straightforward and grounded in how the ‘500 Patent uses the term “physical channel” in connection with delivering *both* (i) fast allocation/scheduling information and (ii)

TPC feedback to the UE. As set out in the POR, “on a single physical channel” means “on the same physical channel instance addressed to the UE for the relevant uplink transmission,” and “not merely in the same system across different channelization codes or different time slots.” POR, 16.

That construction matters because Petitioner’s invalidity case hinges on treating Khan as disclosing that allocation (scheduling grant) and power-control information may be “transmitted ... on a single physical channel,” and then asserting that a POSITA would “similarly transmit” the grant on Andersson’s (or Zeira’s) existing dedicated control channel. Petition, 31–32; Reply, 9–10. But under Patent Owner’s construction, Petitioner cannot satisfy “on a single physical channel” by pointing to disclosures where the two required items are separated either (a) by different codes/covers or (b) by different time slots. POR, 16–17.

Petitioner’s own reliance on Khan illustrates why. Khan explains that, “[i]n order to support both the TPC bits and the scheduling grant ... simultaneously, orthogonal Walsh covers may be needed,” and that it “may also be possible to time-multiplex” the information, including where a MACIndex “may ... carry the TPC bit in some slots and the scheduling grant in one or more of the remaining slots.” EX1005, ¶[0047]. In other words, Khan’s mechanisms for associating both types of information with the same general downlink structure are expressly (i) code/cover separation or (ii) slot separation. EX1005, ¶[0047].

Those are precisely the two routes the POR explains do *not* satisfy the claim phrase “on a single physical channel” as used in the ‘500 Patent. The POR makes explicit that a POSITA would understand “physical channel” here as the specific L1 bearer (defined by code and timing) addressed to the UE, “not a collection of different covers or slot fields shared across users,” and that this understanding “excludes Khan’s orthogonal-cover embodiment (distinct Walsh covers $\Rightarrow$ distinct physical channels) and its time-multiplex embodiment (TPC and grants placed in different slots ...), neither of which teaches co-carriage to the same UE on the same physical channel as claimed.” POR, 16–17.

The Petition confirms that it is relying on exactly those excluded structures. In the portion of the Petition addressing Khan, Petitioner cites Khan’s disclosure that MACIndex “may ... carry the TPC bit in some slots and the scheduling grant in one or more of the remaining slots,” and then quotes Khan’s statement that simultaneous support may require “orthogonal Walsh covers,” while time-multiplexing is also possible. Petition, 31–32 (quoting EX1005, ¶[0047]). Under Patent Owner’s construction, that is not co-carriage “on a single physical channel” to the UE; it is either (i) use of different covers (i.e., different physical channels as the POR explains) or (ii) use of different time slots such that, at the time the UE receives one item, it is not receiving the other on that same channel instance. POR, 16–17; EX1005, ¶[0047].

Petitioner's Reply does not engage with this claim-scope problem. Instead, the Reply asserts that the Petition presents a "simple combination" in which both parameters are transmitted on Andersson's dedicated control channel "based on Khan's disclosure of transmitting both parameters on a single physical channel," and accuses Patent Owner of arguing a strawman "physical incorporation." Reply, 9–10. But that reframing misses the point: the dispute is not whether Petitioner proposes "physical incorporation" as a formal matter; it is whether the *only* Khan disclosures Petitioner invokes to satisfy "single physical channel" are, by their own terms, implemented via different Walsh covers or different slots—approaches that Patent Owner's construction excludes and that Petitioner never reconciles with the claim language.

V. Petitioner's Baker "PCA=2 disables accumulation" theory collapses the claim into a generic "algorithm selection" parameter and rests on a shifting, internally inconsistent definition of "accumulation"

Petitioner's Reply attempts to recast the "indication as to whether accumulation of TPC commands is enabled" limitation as satisfied by Baker's "PCA" parameter, arguing that PCA=1 corresponds to "accumulation enabled" and PCA=2 corresponds to "accumulation disabled." Reply, 17. That contention depends on an artificially narrow, post hoc definition of "accumulation" that equates "accumulation" with "immediate per-command summing of a step-size magnitude" and treats any scheme that defers the update interval (or uses a decision rule over a window of

commands) as “non-accumulation.” Reply, 17. The Petition framed the same premise expressly as a binary enable/disable dichotomy, asserting that a PCA bit “indicates whether TPC command accumulation is enabled or disabled,” where the “disabled” mode supposedly exists because the UE “instead analyze[s] the last five TPC commands” and only then changes transmit power. Petition, 36–38.

That framing fails for two independent reasons: first, it does not match what Baker actually describes; and second, it does not satisfy what the claims require.

As to Baker, Petitioner’s enable/disable story is not supported by Baker’s disclosed behavior. Even in the PCA=2 case, the UE’s transmit power is still updated as a function of a window of prior TPC commands: when the last five commands are all “1,” transmit power is increased by ΔTPC ; when all five are “0,” transmit power is decreased by ΔTPC ; otherwise transmit power is unchanged. Reply, 17; EX1010, ¶[0023]. That is not a “disabling” of accumulation. It is, at most, a change in the time granularity and decision rule by which prior TPC commands collectively influence the next transmit power update. POR, 46–48. Patent Owner already explained that Baker does not disclose any mode in which ΔTPC is *not* integrated into the UE’s transmit power state; rather, the update can occur every slot (PCA=1) or every five slots (PCA=2), and the “unchanged” outcome simply corresponds to a net change of zero over that window, not to a suspension or reset of the underlying power state. POR, 46–48. Petitioner’s Reply does not grapple with that distinction;

it simply relabels “deferred update based on a group of commands” as “accumulation disabled,” without any disclosure in Baker of disabling, freezing, resetting, or reinitializing the transmit power control state. Reply, 17; POR, 46–48.

That technical mismatch matters because Petitioner’s mapping is not merely debating semantics; it is attempting to use Baker to supply the *claim-required indication* “as to whether accumulation ... is enabled.” Petition, 36–38. But Baker’s PCA is, at most, an algorithm/parameter selection controlling *how* TPC commands are processed over time, not a disclosed network-originated enable/disable signal that turns “accumulation” on and off. POR, 46–48. Put differently, Petitioner is sliding among three different concepts and treating them as interchangeable: (i) whether transmit power is ever updated based on prior TPC commands (it is, under both PCA modes), (ii) whether updates occur per-slot or per-window, and (iii) whether the system provides a discrete, operative indication that “accumulation” is enabled (in the sense of a feature that can be enabled or disabled). Petition, 36–38; Reply, 17; POR, 46–48.

Separately, even if Petitioner could show that Baker discloses two different processing schemes, Petitioner still must satisfy what the claim language requires: the UE must “receive an indication as to whether accumulation of TPC commands is enabled.” Petition, 36–38. Petitioner’s theory improperly collapses that limitation into “the UE receives a parameter that selects among two algorithms,” regardless of

whether either algorithm actually constitutes “accumulation” in the sense of a feature that can be enabled or disabled. Petition, 36–38; Reply, 17. That collapse becomes evident in Petitioner’s fallback position, where Petitioner argues that even if Patent Owner is correct that “accumulation” is effectively always enabled in Baker, then receipt of PCA=1 or PCA=2 still satisfies “receiving an indication as to whether accumulation ... is enabled” because the claim supposedly does not require an indication that accumulation is disabled. Reply, 17; POR, 46–48. That argument fails on its own terms. If “accumulation” is always enabled in Baker (as Patent Owner explained it is), then PCA does not indicate *whether* accumulation is enabled; it indicates only which processing variant is used. POR, 46–48. A parameter cannot serve as an “indication as to whether” a feature is enabled when the feature is never actually toggled and the parameter does not correspond to enablement versus disablement at all. Petition, 36–38; POR, 46–48.

Accordingly, Petitioner’s Reply does not repair the Petition’s deficiency on this limitation. The Petition’s Baker mapping depends on treating PCA=2 as “accumulation disabled,” Petition, 36–38, and the Reply’s narrowed “per-command summing” definition is an unsupported semantic rewrite that does not convert Baker’s grouped-decision update into a true disablement of accumulation, Reply, 17, nor does it identify any disclosed mechanism by which a UE receives an operative enable/disable indication consistent with the claim language. POR, 46–48.

VI. Petitioner’s Zeira “ α indicates accumulation enabled/disabled” theory conflates different concepts, contradicts Zeira’s actual disclosure, and is internally inconsistent even on Petitioner’s own framing

Petitioner’s Zeira mapping hinges on a categorical equivalence that the record does not support: Petitioner treats “disabling” one component of Zeira’s hybrid scheme (open-loop or closed-loop) as synonymous with “disabling accumulation of TPC commands,” and then treats the weighting factor α as the claimed “indication as to whether accumulation of TPC commands is enabled.” Petition, 68–69; Reply, 25–27. That framing collapses two distinct concepts. In Zeira, α is described as a weighting/combining parameter that governs how much the *open-loop path-loss term* contributes to transmit power, whereas “accumulation” (as Petitioner itself defines it) is embodied in the closed-loop factor $G(n)$, which is updated based on the previous value $G(n-1)$ and the TPC command term and step size. Petition, 66–68; POR, 62–63; EX1004, 5:67–6:3; 6:16–23.

The POR already explains this structural separation using Zeira’s core equation, $P_{TS} = P_0 + G(n) + \alpha L$, in which α multiplies the open-loop path-loss estimate L , while $G(n)$ is the closed-loop term that builds on $G(n-1)$ and the TPC-driven step updates. POR, 62–63; EX1004, 5:67–6:3; 6:16–23. In other words, α controls weighting of the open-loop contribution (αL), not whether the closed-loop accumulation logic exists, runs, or is “enabled.” POR, 62–63; EX2016, ¶¶150–156. That is why the POR correctly notes that the only concrete “ $\alpha = 0$ ” example in Zeira

merely zeroes out αL (removing the open-loop term), leaving power control to proceed via the closed-loop term $G(n)$. POR, 62–63; EX1004, 7:18–22; EX2016, ¶¶153–155.

Petitioner’s attempt to equate that “ $\alpha = 0$ ” example with “accumulation enabled/disabled” therefore misstates what Zeira is doing. The Petition argues that “setting $[\alpha]$ to zero would disable open loop mode and enable closed loop mode (thereby enabling TPC command accumulation).” Petition, 68. But that logic presupposes that “accumulation” is something that is toggled on only when open-loop is absent. Zeira does not teach that. Zeira’s closed-loop term $G(n)$ is present and evolves across slots/frames by reference to its prior value and TPC inputs; that is precisely the “accumulation” Petitioner attributes to Zeira’s closed-loop component. Petition, 66–68; POR, 62–63; EX2016, ¶¶152–156. Removing αL does not “enable” that closed-loop evolution; it simply removes the open-loop contribution. POR, 62–63; EX2016, ¶¶153–155. As Patent Owner’s expert explains, “ $G(n)$ builds upon previously received TPC commands and is thus always active—regardless of the value of α ,” and “enabling accumulation, and weight[ing] L by zero, are entirely different concepts.” EX2016, ¶¶152–156; POR, 62–63.

The Reply compounds this error by asserting that Patent Owner “does not dispute that disabling Zeira’s closed loop power control with a weighting factor disables TPC command accumulation.” Reply, 25–26. That statement is incorrect on

its face and reflects the same conflation. Patent Owner’s point is the opposite: α is not a “disable closed-loop” switch for “accumulation.” POR, 62–63. Even accepting Petitioner’s premise that Zeira contemplates weighting being “applied to the closed loop factor or both the open and closed loop factors,” that does not transform α into an on/off “accumulation” indicator. Reply, 25–27; EX1004, 7:16–22. At most, it indicates that Zeira contemplates weighting/combining schemes for how open-loop and closed-loop contributions are blended. That is not an “indication as to whether accumulation ... is enabled.” Petition, 68–69; Reply, 25–27; POR, 62–63.

Petitioner’s position is also internally inconsistent in the way it uses α . In the same breath, Petitioner (i) points to the $\alpha = 0$ example to argue that α disables open-loop and “enables” closed-loop (and thus “accumulation”), while also (ii) asserting that α “may be applied to the closed loop factor” and that a “non-zero weighting factor applied to the closed loop factor” indicates accumulation is enabled. Petition, 68–69; Reply, 26–27. Those propositions cannot be reconciled as a coherent “indication” theory. If α were functioning as a weighting factor applied to the closed-loop term, setting α to zero would tend to suppress (not “enable”) the closed-loop contribution; yet Petitioner relies on $\alpha = 0$ to argue the opposite. Petition, 68; Reply, 26–27. The shifting characterization underscores that Petitioner is not identifying a disclosed enable/disable mechanism for “accumulation,” but instead is attempting to

repurpose a continuous weighting parameter into whatever binary toggle is needed to fit the limitation.

Finally, even if one were to assume—contrary to the record—that α is a “mode selector,” Zeira still does not teach that α functions as a discrete, binary “as to whether” indication of accumulation being enabled. Petitioner’s own framing treats α as spanning “purely open loop,” “purely closed loop,” and a “combined scheme.” Petition, 68–69; Reply, 25–27. That is not a binary “enabled/disabled” signal directed to “accumulation”; it is, at most, a parameter controlling the balance between open-loop and closed-loop contributions. POR, 62–63; EX2016, ¶¶155–156. The claim limitation requires that the UE receive an indication “as to whether accumulation of TPC commands is enabled,” and Petitioner’s α theory fails independently because it conflates weighting the open-loop term with enabling/disabling closed-loop accumulation, and it cannot consistently explain how α purportedly toggles “accumulation” without contradicting Zeira’s own example and Petitioner’s own alternative descriptions.

VII. Petitioner’s “ α is the indication” theory still fails because Zeira does not disclose any network-to-UE signaling of α and Petitioner cannot supply that missing disclosure by recharacterizing operator intent as “receipt”

Petitioner’s Zeira-based grounds depend on the assertion that Zeira’s weighting factor α is an “indicator” set by a “network operator,” such that “the UE receives from the network operator an indication” enabling or disabling TPC

accumulation. Petition, 48; Petition, 68. In Reply, Petitioner reprises the same premise, arguing that Patent Owner “only disputes whether Zeira receives the weighting factor from a network operator,” and contending that Zeira “renders obvious receiv[ing] an indication” because the operator may select a power-control mode by “setting α ... to zero.” Reply, 25.

That syllogism does not close the evidentiary gap identified in the POR. The challenged limitation is not satisfied by a generalized statement that an “operator may desire” a particular operating mode. The claim requires that the UE “receive an indication as to whether accumulation of TPC commands is enabled.” Petition, 48; Reply, 25. To meet that requirement using Zeira, Petitioner must identify record evidence showing (i) a disclosed *signal* or communicated parameter, (ii) the entity that transmits it (and when), and (iii) how it is conveyed to the UE in a manner consistent with the Petition’s overall theory (including Petitioner’s “single physical channel” requirements in the same ground). Petition, 48; Petition, 68; Reply, 25. Petitioner still does not do so.

Zeira’s actual description of α cuts against Petitioner’s rewrite. As Patent Owner explained, Zeira describes α as a weighting factor determined at the UE and tied to the “quality of the estimated path loss,” and it describes UE-side computation of the path loss estimate and its weighting. POR, 27. Petitioner concedes this, acknowledging that “Zeira teaches that the UE may sometimes calculate the

weighting factor α .” Reply, 25 (citing EX1004, 6:31-54). That disclosure is not merely a minor implementation detail. It is inconsistent with Petitioner’s characterization of α as a network-provided “indication” that is received by the UE as a mode-enable signal. Reply, 25; POR, 27.

Petitioner tries to bridge that mismatch by pointing to Zeira’s single sentence noting that, “[u]nder certain conditions, the network operator may desire to use solely open loop or solely closed loop power control,” and giving the example that “the operator may use solely closed loop power control by setting α to zero.” Petition, 48; Petition, 68; Reply, 25 (citing EX1004, 7:16-22). But that language is, at most, a statement about operator preference and an illustrative end-state. It does not disclose *how* α is set at the UE, what message carries α , what field conveys it, what protocol layer provides it, or what network entity originates it. POR, 27.

Patent Owner squarely raised this point: Zeira “does not mention how the network sets the weighting factor to zero (or which entity might do it)” and provides no implementation details for communicating such a setting to the UE. POR, 27. The Reply does not supply any of the missing disclosure in Zeira; it simply assumes that, because an operator may “desire” a mode, the UE necessarily “receives” an “indication” that somehow implements that desire. Reply, 25. That is not a disclosure; it is wishful gap-filling.

This gap is dispositive because Petitioner’s mapping requires more than proving that α could, in theory, be so configured. The claim requires the UE to *receive* an “indication as to whether accumulation ... is enabled,” and Petitioner’s Zeira theory is explicitly premised on α being that received indication. Petition, 48; Petition, 68; Reply, 25. If Zeira does not disclose any network-to-UE communication of α (or any other explicit enable/disable indication), then Petitioner has not shown that Zeira teaches—or renders obvious—this limitation without relying on conjecture about unrecited signaling mechanisms.

VIII. Conclusion

Accordingly, even accepting Petitioner’s framing at a high level, Petitioner has not carried its burden on the challenged claims. Petitioner still fails to identify record evidence of the claim-required “allocation of an uplink resource” that the UE receives and then uses to “transmit an uplink signal on the allocated uplink resource.” POR, 44; Reply, 8. Petitioner likewise fails to prove the separate requirement that the UE “receive an indication as to whether accumulation of TPC commands is enabled.” These defects are independently dispositive, and they remain dispositive even if the Board were to view Petitioner’s “single physical channel” theory more favorably than Patent Owner’s construction.

Respectfully submitted,

Dated: January 26, 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 Sur-Reply complies with the type-volume limits of 37 C.F.R. § 42.24(b)(1) because it contains 5,594 words, excluding the parts of this Patent Owner's Sur-Reply 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,

Dated: January 26, 2026

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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 January 26, 2026 to lead and backup counsel of record for Petitioners as follows:

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