

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner,

v.

INTELLECTUAL VENTURES II LLC,
Patent Owner.

IPR2025-00219
U.S. Patent No. 9,706,500

**DECLARATION OF MICHAEL D. KOTZIN, PH.D.
UNDER 37 C.F.R. § 1.68 IN SUPPORT OF PETITIONER REPLY**

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I. INTRODUCTION

1. I am making this declaration at the request of Tesla, Inc. in the matter of the *Inter Partes* Review (“IPR”) of U.S. Patent No. 9,706,500 (“the ’500 patent”) to Anderson.

2. I am also being reimbursed for reasonable and customary expenses associated with my work and testimony in this investigation. My compensation is not contingent on the outcome of this matter or the specifics of my testimony, and I have no other interest in this case or the parties thereto.

3. I have been asked to provide opinions addressing arguments presented in Patent Owner’s Response (Paper 15, the “Response”) in this IPR. I understand that this Declaration is being filed concurrently with Petitioner’s Reply to the Response.

4. In preparation of this declaration, I have considered all materials listed in my Prior Declaration (Ex.1003). I have also considered the following additional materials:

Ex.1069	Gandal et al., <i>Standards in wireless telephone networks</i> , Telecommunications Policy 27, pp. 325–332 (2003)
Ex.1070	Parameshwar et al., <i>A Comparative Study of CDMA2000 and W-CDMA</i> , 1999 IEEE Emerging Technologies Symposium - Wireless Communications and Systems (1999)
Ex.1071	Deposition Transcript of Dr. Gary R. Lomp, Ph.D., November 24, 2025

Ex.2016	Declaration of Dr. Gary Lomp in Support of Patent Owner's Response
Paper 11	Institution Decision ("ID")

5. In forming the opinions expressed below, I have considered:

- the documents listed above, as well as any materials cited in my analysis below;
- the relevant legal standards, including the standard for obviousness, as explained to me by counsel, and any additional authoritative documents as cited in the body of this declaration; and
- my own knowledge and experience based upon my work in the field of wireless communication systems as described below.

6. Unless otherwise noted, all emphasis in any quoted material has been added.

II. QUALIFICATIONS AND PROFESSIONAL EXPERIENCE

7. My complete qualifications and professional experience are described in my *Curriculum Vitae*, a copy of which can be found in Exhibit 1014. A brief summary of my relevant qualifications and professional experience is included in my Prior Declaration (Ex.1003) and is hereby incorporated by reference.

8. My technical background has addressed private/public wireless

systems, base/mobile hardware and software, algorithms, networking and protocols, signal processing, software/hardware design methodologies, antennas and cybersecurity. Based on my experience and education, I consider myself to be an expert at least in the fields of telecommunications, cellular networking, infrastructure, and mobile devices. As of the earliest priority date of the '500 patent, I was at least a person of ordinary skill in the art, and I had personal knowledge of the technologies utilized therein.

III. LEVEL OF ORDINARY SKILL IN THE ART

9. I have performed the present analysis through the lens of a person of ordinary skill in the art ("POSITA") in the field of the '500 patent, as of its alleged priority date in August 2004, as defined in paragraphs 29-32 of my Prior Declaration (Ex.1003), which are hereby incorporated by reference.

IV. RELEVANT LEGAL STANDARDS

10. I am not an attorney. In preparing and expressing my opinions and considering the subject matter of the '500 patent, I am relying on certain basic legal principles that counsel have explained to me. These principles are discussed below.

11. I understand that prior art to the '500 patent includes patents and printed publications in the relevant art that predate the priority date of the alleged invention recited in the '500 patent.

12. I have been informed that a claimed invention is unpatentable under 35 U.S.C. § 103 if the differences between the invention and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. I have also been informed by counsel that the obviousness analysis takes into account factual inquiries including the level of ordinary skill in the art, the scope and content of the prior art, and the differences between the prior art and the claimed subject matter.

13. I have been informed by counsel that the Supreme Court has recognized several rationales for combining references or modifying a reference to show obviousness of claimed subject matter. Some of these rationales include the following: (a) combining prior art elements according to known methods to yield predictable results; (b) simple substitution of one known element for another to obtain predictable results; (c) use of a known technique to improve a similar device (method, or product) in the same way; (d) applying a known technique to a known device (method, or product) ready for improvement to yield predictable results; (e) choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success; and (f) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed

invention.

V. ANALYSIS

A. CDMA vs. GSM networks

14. At the time of the '500 patent, two separate families of wireless networks were in wide use: CDMA (Code Division Multiple Access) networks and GSM (Global System for Mobile Communications) networks. Ex.1069, 326-327. CDMA networks were widely utilized across the United States and Canada, while European networks almost exclusively utilized GSM technology. *Id.* Wireless network technologies falling into the CDMA family are generally incompatible with technologies in the GSM family, and vice versa. *Id.* This is why, at the time of the '500 patent, mobile phones designed to operate on U.S. and Canadian networks generally did not work in Europe.

15. Generally, technologies in the CDMA family—such as CDMA2000 and 2G CDMA (also referred to as “CDMA-One” or “IS-95”)—are designed to be backwards compatible with previous standards in the family. Ex.1070, 2. For example, CDMA2000 “is designed to be backward compatible with IS-95B,” the previous technology in the CDMA family. Ex.1070, 2. “This ensures reuse of most of IS-95 and related standards, graceful evolution to third generation systems” (e.g., CDMA2000) “from 2G systems” (e.g., IS-95) “and protection of investments of 2G systems operators.” *Id.*

16. The CDMA family of wireless networks shares its name with the general wireless technique of Code Division Multiple Access, in which multiple devices communicate with a base station over the same frequency, and signals are associated with each device by a “unique code” associated with the particular device. Ex.1003, ¶¶ 38-40.

17. Wireless technologies outside of the CDMA family of technologies can and do utilize the “Code Division Multiple Access” technique. For example, the “WCDMA” technology (short for “Wideband CDMA,” and also known as “UMTS”) is part of the GSM family of technologies, but utilizes the Code Division Multiple Access technique. Ex.1069, 328; Ex.1003, ¶ 15. Despite using the Code Division Multiple Access technique, WCDMA is not compatible with technologies in the CDMA family, such as CDMA2000. *Id.*

B. “*Accumulation of TPC commands*”

18. I understand that Patent Owner proposes a construction of “*accumulation of TPC commands*.” Response, 10-16. I provide the opinions below on the construction of this term and the disclosure of Baker related to the limitation “*receive an indication as to whether accumulation of TPC commands is enabled.*”

1. Claim Construction

19. In my prior declaration, I did not offer a claim construction for the term “*accumulation of TPC commands*.” See Ex.1003, ¶¶ 52-53. Nor did I interpret

“*accumulation of TPC commands*” to be limited to instances where the transmission power is updated with every received TPC command. *See* Ex.1003, ¶¶ 116, 119, 175. Instead, with respect to Baker, I explained that Baker does not teach TPC command accumulation when Baker’s PCA is 2 because in that example, Baker *compares* received TPC commands, rather than accumulates the TPC commands to adjust transmission power. *See* Ex.1003, ¶ 119. And with respect to Zeira, I explained that TPC command accumulation relates to “successive TPC commands being ‘accumulated’ with previous commands” to update the transmission power. *See* Ex.1003, ¶ 175.

20. Given Patent Owner’s proposed construction of “*accumulation of TPC commands*” (Response, 10-16), I now address the construction of this claim term. I have been told that in the Institution Decision in *Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00217 (the “’153 IPR”), a co-pending IPR related to the ’500 patent’s child patent, U.S. 10,952,153, the Board raised a perceived claim construction dispute for a similar limitation—“*TPC command accumulation.*” ’153 IPR, Paper 11 at 8-9. In that IPR, the Board preliminarily understood “*TPC command accumulation*” to mean that “TPC commands cumulatively affect transmission power.” *Id.* I agree with the Board’s understanding and believe “*accumulation of TPC commands*” also means “TPC commands cumulatively affect transmission power.” As described in the specification of the ’500 patent,

this means the “magnitude” of each TPC command adjustment is summed to cumulatively affect transmission power. *See, e.g.*, Ex.1001, 9:21-33 (“[S]tep is the **magnitude** of the amount added to an accumulator upon receipt of **each** TPC command.”).

21. The specification repeatedly describes accumulation as summing, or adding, magnitudes of each received TPC command adjustment to cumulatively affect transmission power. The specification states that “[a] UE accumulates the increase and decrease TPC commands to determine a proper uplink transmit power level.” Ex.1001, 6:63-65. As a specific example, the specification states that “the system will take **15 TPC commands to compensate for the 15 dB fade.**” Ex.1001, 6:61-63.

22. The specification expressly states that “magnitude[s]” of TPC command adjustments are added to an accumulator after receiving “each” TPC command to cumulatively affect transmission power:

[F]or the current frame k , the UE may calculate the transmit power $PTx(k)$ as shown [in Equation 2] where K is the initial frame number determined when the power control process begins; $TPCi$ is -1 for a down TPC command and +1 for an up TPC command and 0 if no TPC command is received; **and step is the magnitude of the**

**amount added to an accumulator upon receipt of each
TPC command.**

Ex.1001, 9:21-27; *see also* 7:10-12 (“**Every time a TPC command is received** an integrator in the UE is used within the inner loop to update the UE transmit power **by a step amount $\pm\Delta$ dB.**”).

23. For the “accumulation” aspect, the specification describes summing adjustment magnitudes associated with received TPC commands and outputting a single, cumulative “sum” to update—and thus cumulatively affect—transmission power: an “accumulator [has] **an input for accepting step increase and decrease instructions and an output providing a sum of past step instructions.**” Ex.1001, 3:33-35. The accumulated sum of the received TPC command step magnitudes are subsequently applied to the transmission power, and may be applied “every frame period,” “each time a new TPC command is received,” or “only when either a TPC command or a new power level is received from the network.” Ex.1001, 9:27-32. But regardless of application timing, the adjustment magnitude associated with *every* received command is summed to cumulatively affect transmission power. Ex.1001, 9:21-27 (“upon receipt of **each** TPC command,” magnitude of adjustment added to accumulator).

24. Patent Owner’s expert, Dr. Lomp, confirms that TPC command accumulation refers to summing the magnitude of each received TPC command

adjustment to cumulatively affect transmission power. In his declaration, Dr. Lomp explains that “the network sends a TPC command instructing the UE to increase or decrease its transmit power—typically by a small, fixed size step, such as ± 1 dB....

[T]he UE keeps a running tally of all the ‘up’ and ‘down’ commands. This process of summing these incremental adjustments over time is what the patent refers to as accumulation.” Ex.2016, ¶ 43. Dr. Lomp also states that TPC command accumulation refers to “**sum[ming] the history of transmit power control (TPC) commands received from the network...by ‘adding a TPC command value to an integrator’ each time a TPC command is received.**” Ex.2016, ¶ 43. Dr. Lomp’s statements regarding summing the incremental adjustments of all received TPC commands further supports the Board’s understanding that “*accumulation of TPC commands*” means summing the magnitude of each TPC command adjustment to cumulatively affect the transmission power.

25. I understand that Patent Owner puts forth a construction for “*accumulation of TPC commands*” of “adding a TPC command value to an integrator.” Response, 16. In my opinion, the ’500 patent does not require an integrator. None of the claims of the ’500 patent recite an “integrator.” *See* Ex.1001, 13:57-16:20. And the specification does not define or require TPC command accumulation to use an integrator. The specification only mentions an

“integrator” once in passing, stating that “[e]very time a TPC command is received an integrator in the UE is used within the inner loop to update the UE transmit power by a step amount $\pm\Delta$ dB.” *Id.*, 7:10-12. This sentence, however, does not *require* an integrator as part of TPC command accumulation. The ’500 patent also repeatedly describes accumulation more generally without reference to an integrator. *See, e.g.*, Ex.1001, 6:63-65 (“A UE accumulates the increase and decrease TPC commands to determine a proper uplink transmit power level.”), 7:35-38 (“The UE accumulates 320 the TPC commands and uses the accumulated TPC commands to set 322 a transmit power for future uplink transmissions 300.”), 10:12-15 (“The UE accumulates 420 the TPC commands and uses the accumulated TPC commands to set 436 a transmit power for future uplink transmissions 400.”), 3:5-25 (method including “receiving the TPC command indicating the step indicator” and “accumulating the step indicator value”). The ’500 patent also makes clear that examples described in the specification are not limiting. Ex.1001, 4:5-8, 13:32-35, 13:49-56.

26. Accordingly, in light of the claims and specification, “*accumulation of TPC commands*” refers to summing the magnitude of each TPC command adjustment to cumulatively affect transmission power, and does not require an integrator.

2. Andersson in view of Baker renders obvious receiving an

indication as to whether accumulation of TPC commands is enabled under any interpretation

a) When Baker's PCA=2 the magnitude of each TPC command does not cumulatively affect transmission power

27. As I explained in my previous declaration, the combination of Andersson and Baker renders obvious “*wherein the processor is further configured to receive an indication as to whether accumulation of TPC commands is enabled.*” Ex.1003, ¶¶ 115-120. Under a construction of “*accumulation of TPC commands*” requiring that the magnitude of each TPC command adjustment cumulatively affects transmission power, TPC command accumulation is disabled in Baker when PCA is 2.

28. As I previously explained, in Baker, when PCA is 2, the mobile station *compares* received TPC commands:

When the value of PCA is 2, Δ_{TPC} can only take the value of 1 and **the MS 110 combines TPC commands in groups of five. If all five TPC commands are “1” the transmission power is increased by Δ_{TPC} dB, if all five TPC commands are “0” the transmission power is decreased by Δ_{TPC} , otherwise the transmission power is unchanged.**

Ex.1010, [0023]; Ex.1003, ¶ 119. The mobile station does not sum the received TPC commands to cumulatively affect transmission power. And the mobile station

certainly does not add the associated magnitude of TPC command adjustments of Δ_{TPC} dB = 1 dB to cumulatively affect transmit power. For example, if the mobile station receives five TPC commands of “1,” the transmit power is not increased five times by Δ_{TPC} dB (i.e., 5 dB). Instead, the transmit power is only increased once by Δ_{TPC} dB (i.e., 1 dB). This increase of 1 dB is a set amount that is not cumulative of the five received “1” TPC commands. This operation is in contrast to PCA=1, where TPC command accumulation is enabled because “if the received [TPC] command is ‘1’ the MS 110 increases its transmission power by Δ_{TPC} dB,” such that magnitudes of each TPC command adjustment (i.e., Δ_{TPC} dB associated with each received TPC command) cumulatively affect the transmission power. Ex.1010, [0022].

29. Accordingly, in Baker, when PCA is 2, TPC command accumulation is not enabled because the UE will not iteratively update the transmission power based on each TPC command, and the received TPC commands do not cumulatively affect transmission power. Baker’s PCA thus controls whether accumulation of TPC commands is enabled and is “*an indication as to whether accumulation of TPC commands is enabled.*”

b) When Baker’s PCA=2, TPC command values are not summed within an “integrator”

30. Even under Patent Owner’s construction where “*accumulation of TPC*

commands” requires “adding a TPC command value to an integrator” (which is wrong as discussed above in § V.B.1), Baker’s PCA is still “*an indication as to whether accumulation of TPC commands is enabled.*”

31. In Baker, when PCA=2, TPC command accumulation is ***disabled*** because Baker’s received TPC command values (i.e., the received “1” and “0” TPC commands) are not summed within an integrator. Ex.1010, [0022]. Instead, as explained above in § V.B.2.a, the received TPC command values are ***compared*** to look for five “1” TPC commands or five “0” TPC commands.

32. I understand that Dr. Lomp treats the “accumulator” of the ’153 patent and an “integrator” interchangeably. Ex.1071, 41:15-42:4. I understand that in his deposition, Dr. Lomp defines an “integrator” as a structure that holds a single value, where an incoming value is added to the single value to form a new value:

Q. Okay. So what is an integrator?

A. So there’s a register which has a number in it. And when new inputs to that accumulator arrive, **the input number is added to the contents of the register to create a new value. So the new value is equal to the old value, plus the increment that comes to the input.**

Ex.1071, 40:2-13, 41:4-18. Even under Dr. Lomp’s understanding of an integrator, Baker’s PCA=2 does not meet Patent Owner’s “integrator” requirement. When

Baker's PCA=2, Baker does not add the incoming TPC command value to a single, old value to create a new value. Instead, Baker *compares* the received TPC command values. *See* § V.B.2.a above.

33. To the extent Baker holds the last five TPC commands in a buffer for comparison purposes, that buffer would not be an integrator under Dr. Lomp's understanding because it does contain a single value that is continuously incremented. Moreover, when Baker receives five "1" TPC commands, for example, the transmit power is incremented by a set amount of $\Delta_{\text{TPC}} \text{ dB} = 1 \text{ dB}$. This 1 dB increment is not "a TPC command value" under Patent Owner's construction—it is a separate value that is associated with receiving five "1" TPC command values.

34. Accordingly, when PCA is 2, TPC command accumulation is disabled under Patent Owner's construction, and Baker's mobile station receiving an indication that PCA is 1 establishes that the mobile station *receive[s] an indication as to whether accumulation of TPC commands is enabled*.

c) Baker teaches the claim limitation even under Patent Owner's reading of Baker that TPC command accumulation is always enabled

35. I understand that Patent Owner's Response and Dr. Lomp's supporting declaration argue that in Baker, TPC command accumulation is always

enabled, regardless of whether PCA=1 or PCA=2. Response, 46-48; Ex.2016, ¶¶ 119-127. I disagree with Patent Owner and Dr. Lomp of the reasons explained above in §§ V.B.2.a-b. But even under this interpretation of Baker, Baker teaches *receiv[ing]an indication as to whether accumulation of TPC commands is enabled* as required by the claims.

36. The claims only require “*receiv[ing]an indication as to whether accumulation of TPC commands is enabled.*” Ex.1001, claim 12, claim 18 (reciting similar). The claims do not require receiving an indication that TPC command accumulation is *disabled*. See Ex.1001, claim 12, claim 18. Under Patent Owner and Dr. Lomp’s interpretation of Baker that TPC command is enabled both when PCA=1 and PCA=2, Baker’s mobile device receiving a command that PCA=1 or PCA=2 means that the mobile devices *receive[s] an indication as to whether accumulation of TPC commands is enabled*.

37. Accordingly, Baker teaches *receiv[ing] an indication as to whether accumulation of TPC commands is enabled* as required by the claims even under Patent Owner and Dr. Lomp’s erroneous reading of Baker.

C. Andersson in view of Khan renders obvious receiving allocation of an uplink resource and power control information on a single channel

38. My Prior Declaration describes a simple combination of Andersson

and Khan in which both allocation of an uplink resource (“an uplink signaling grant”) and power control information (a “TPC command”) is transmitted on Andersson’s “dedicated physical control channel” based on Khan’s disclosure of transmitting both parameters on a single physical channel. Ex.1003, ¶¶ 62-65. This combination of Andersson and Khan does not involve physically incorporating Khan’s channel into Andersson’s system.

39. In addition, I understand that Patent Owner and Dr. Lomp have argued that the teachings of Andersson and Khan are limited, respectively, to the WCDMA and CDMA2000 HRPD network technologies. Ex.2016, ¶¶ 95-100; Response, 36-39. But as I explain below, neither reference is limited to the particular network technology alleged by Patent Owner and Dr. Lomp.

1. The Andersson-Khan combination does not involve physical incorporation

40. The Andersson-Khan combination is straightforward, and simply involves both allocation of an uplink resource and power control information being received on Andersson’s existing “dedicated physical control channel.” Ex.1003, ¶¶ 62-65. This modification to Andersson’s control channel is based upon Khan’s technique of transmitting both allocation of an uplink resource and power control information on a single physical channel. Ex.1003, ¶¶ 62-65. As I stated in my Prior Declaration, a “POSITA would have been motivated to transmit *on*

Andersson's 'dedicated physical control channel (DPCCH)' both the TPC command and an uplink scheduling grant, as taught by Khan[.]” Ex.1003, ¶ 63.

41. In my opinion, it would not be necessary to substantially redesign Andersson's system to perform the proposed combination, which merely contemplates, for example, utilizing the existing “other bits” in Andersson's DPCCH for an uplink signaling grant, based on Khan's teachings. *See, e.g.*, Ex.1005, [0043], [0047] (teaching receiving both TPC command and uplink signaling grant on the same channel).

2. Andersson and Khan are not each directed only to a single type of wireless network

42. I understand that Patent Owner and Dr. Lomp mischaracterize Andersson and Khan as each directed only to a specific type of wireless network—Andersson to “WCDMA” and Khan to “CDMA2000 HRPD.” *See, e.g.*, Response, 33 (describing “WCDMA” as “the underlying technology of the Andersson patent”), 40 (Khan as directed to “CDMA2000 HRPD”); *see also id.*, 23, 36-38, 42.

43. In my opinion, Andersson and Khan are not exclusively directed to WCDMA and CDMA2000 HRPD. Ex.1009, 7:16-18; Ex.1005, [0005], [0008], [0018], [0034], [0037]. In fact, in my Prior Declaration, I analyzed the combination under “CDMA” (not WCDMA): “A POSITA would have thus naturally expected

to be successful applying well-known signaling techniques such as Khan’s—especially in view of Andersson’s statement that it utilizes “***well-known CDMA techniques....***” Ex.1003, ¶ 65 (citing Ex.1009, 7:46-54).

44. Andersson explains that its network “may be, for example, ***a CDMA or a wideband CDMA [WCDMA] communications system.***” Ex.1009, 7:16-18. Andersson notably uses the word “or” here to differentiate between “CDMA” networks and “WCDMA” networks, which were different wireless technologies as explained above. *See* § V.A. Thus, in my opinion, Andersson’s disclosure makes clear that it is not limited only to WCDMA.

45. Similarly, Khan is not limited to “CDMA2000 HRPD.” Khan describes several different types of wireless networks—including “CDMA,” “UMTS,” and “HSDPA”—in addition to “CDMA2000 HRPD.” Ex.1005, [0005], [0008]. Further, Khan repeatedly refers to its descriptions of “CDMA2000 HRPD” networks as “exemplary,” thereby indicating that its disclosure is not limited to only that type of network. Ex.1005, [0018], [0034], [0037].

46. There is, in fact, significant overlap between the types of wireless networks to which the techniques of Andersson and Khan are applicable. For example, both references are explicitly directed to compatible “CDMA” type wireless networks, and the proposed combination is based on the “CDMA”

example in Andersson. *See* Ex.1009, 7:16-18 (Andersson’s techniques are applicable to “CDMA” systems); Ex.1005, [0003], [0005], [0008], [0018], [0034] (Khan’s techniques are applicable to “CDMA” systems); Ex.1003, ¶ 65; *see also*, *e.g.*, Ex.1069, 325-330; Ex.1070, 1-3. Further, both references describe transmission of TPC commands on their respective control channels. Ex.1009, 9:12-24 (Andersson’s “DPCCH” transmits TPC commands); Ex.1005, [0012], [0043] (Khan’s channel transmits TPC commands).

D. Zeira and Khan render obvious receiving allocation of an uplink resource and power control information on a single channel

47. Similar to the Andersson-Khan combination, the Zeira-Khan combination simply involves transmitting both allocation of an uplink resource (“an uplink signaling grant”) and power control information (a “TPC command”) on Zeira’s existing channel based on Khan’s disclosure of transmitting both parameters on a single physical channel. Ex.1003, ¶¶ 152-156. This combination of Zeira and Khan does not involve physically incorporating Khan’s channel into Zeira’s system.

48. In addition, I understand that Patent Owner and Dr. Lomp have argued that the teachings of Zeira and Khan are limited, respectively, to the “UTRA-TDD in UMTS Release 99” and “CDMA2000 HRPD” network technologies. Ex.2016, ¶ 138. But as I explain below, neither reference is limited to

the particular network technology alleged by Patent Owner and Dr. Lomp.

1. The Zeira-Khan combination does not involve physical incorporation

49. Like the Andersson-Khan combination discussed above, the Zeira-Khan combination is straightforward, and simply involves receiving both allocation of an uplink resource and power control information on Zeira's existing "dedicated channel." Ex.1003, ¶¶ 154-156. This modification to Zeira's dedicated channel is based upon Khan's technique of transmitting both allocation of an uplink resource and power control information on a single physical channel. Ex.1003, ¶¶ 154-156. The proposed combination does not involve incorporating Khan's channel into Zeira or changing the format of Zeira's dedicated channel to match the format of Khan's channel, and thus would not "require substantial re-design of Zeira's" channel. Ex.1003, ¶¶ 154-156.

2. Zeira and Khan are not each directed only to a single type of wireless network

50. I understand that Patent Owner and Dr. Lomp mischaracterize both Zeira and Khan as each directed only to a different type of wireless network—Zeira to "UTRA-TDD in UMTS Release 99" and Khan to "CDMA2000 HRPD" (as discussed in § V.C above). *See, e.g.*, Response, 55; Ex.2016, ¶ 138. But, in my opinion, based on explicit disclosure in each reference, neither Zeira nor Khan is directed only to the single type of network alleged by Patent Owner and Dr. Lomp.

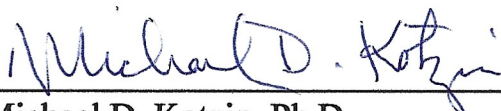
51. Zeira is not limited to “UTRA-TDD in UMTS Release 99” based on its explicit disclosure. The terms “UTRA” and “UMTS” do not appear in Zeira’s disclosure. *See generally* Ex.1004. Zeira does include the term “TDD,” but that term merely refers to “time division duplexing,” a communications technique (not system) that is used in many different types of wireless networks and is not specific to “UTRA” or “UMTS” networks. *See, e.g.,* Ex.1004, 1:7-11, 4:10-30. In my opinion, Zeira’s use of the term TDD was simply meant to indicate that Zeira’s hybrid power control technique may be used in any cellular system that employs TDD. *See, e.g.,* Ex.1004, 1:7-11, 4:10-30.

52. And, as discussed above (§ V.C.2), Khan is not limited to “CDMA2000 HRPD.”

VI. CONCLUSION

This declaration and my opinions herein are made to the best of my knowledge and understanding, and based on the material available to me, at the time of signing this declaration. I declare that all statements made herein on my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 or Title 18 of the United States Code.

Date: Dec 15, 2025


Michael D. Kotzin, Ph.D.