

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTEL CORPORATION and LENOVO (UNITED STATES) INC.,

Petitioners

v.

USTA TECHNOLOGY, LLC,

Patent Owner

Case IPR2025-00838
U.S. Patent No. RE47,720

PATENT OWNER PRELIMINARY RESPONSE

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TABLE OF EXHIBITS

Exhibit	Description
2001	Complaint for Patent Infringement, Dkt. 1 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2002	First Amended Complaint for Patent Infringement, Dkt. 19 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2003	Second Amended Complaint for Patent Infringement, Dkt. 34 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2004	Lenovo (United States), Inc. and Lenovo Global Technology (United States) Inc.'s Motion to Dismiss for Improper Venue or, in the Alternative, To Transfer Venue, Dkt. 21 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2005	Defendant Lenovo Group Limited's Motion to Dismiss and Strike Plaintiff USTA Technology, LLC's Second Amended Complaint, Dkt. 43 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2006	USTA Technology, LLC's Unopposed Motion for Jurisdictional Discovery and to Extend the Time to Response to Lenovo Group Limited's Motion to Dismiss and Strike the Second Amended Complaint, Dkt. 57 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2007	Order on Jurisdictional Discovery, Dkt. 58 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2008	Joint Rule 26(f) Conference Report, Dkt. 49 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2009	Defendants' Unopposed Motion for Extension of Rule 26(f) Conference and Related Deadlines, Dkt. 30 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2010	Scheduling Order, Dkt. 26 in

	<i>USTA Technology, LLC. v. AT&T Mobility LLC, et al.</i> , No. 4:24-cv-00513 (E.D. Tex. June 7, 2024)
2011	Second Amended Scheduling Order, Dkt. 41 in <i>USTA Technology, LLC. v. AT&T Mobility LLC, et al.</i> , No. 4:24-cv-00513 (E.D. Tex. June 7, 2024)
2012	Scheduling Order, Dkt. 29 in <i>USTA Technology, LLC. v. AsusTek Comp. Inc. et al.</i> , No. 4:24-cv-00512 (E.D. Tex. June 7, 2024)
2013	Lenovo Group Limited's Notice of <i>Sotera</i> Stipulations for U.S. Patent No. RE47,720, Dkt. 60 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2014	Appeal Statistics by Patent Trial and Appeal Board, dated April 30, 2025
2015	Order granting Ex Parte Reexamination of U.S. Patent RE47,720 in Reexam App. No. 90/019,702, dated December 5, 2024
2016	Burchfiel Oral History, recorded June 5, 2009
2017	Notice of References Cited, accompanying a Non-Final Rejection of U.S. Patent App. 12/059,682, dated January 27, 2011
2018	Office Action in <i>Ex Parte</i> Reexamination, Reexam App. No. 90/019,702, dated March 31, 2025
2019	Order setting briefing schedule for jurisdictional discovery, Dkt. 64 in <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)
2020	Information Disclosure Statement, filed during prosecution of U.S. Patent App. 13/553,417, dated August 2, 2012
2021	Non-Final Rejection of U.S. Patent App. 13/553,417, dated February 22, 2013
2022	Final Rejection of U.S. Patent App. 13/553,417, dated August 26, 2013
2023	Non-Final Rejection of U.S. Patent App. 11/847,502, dated June 28, 2010
2024	Information Disclosure Statement, filed during prosecution of U.S. Patent App. 13/495,516, dated April 22, 2013
2025	Email from counsel for Intel to counsel for Patent Owner, dated January 23, 2023
2026	Response to Office Action in <i>Ex Parte</i> Reexamination of Reexam App. No. 90/019,702, and accompanying documents, dated June 2, 2025
2027	Notice of Intent to Issue a Reexam Certificate, and accompanying documents, dated July 15, 2025

2028	Time to Trial, <i>Median Time-to-Trial Statistics for the Eastern District of Texas, Jan. 1, 2020-July 28, 2025</i> , DOCKET NAVIGATOR, https://search.docketnavigator.com/patent/binder/0/0 (last visited July 28, 2025) (from homepage, click “Time to Trial” under “Timing Analysis”)
2029	<i>Intel Based Laptops</i> , LENOVO, https://www.lenovo.com/us/en/faqs/intel/best-intel-processor-laptops/?orgRef=https%253A%252F%252Fwww.google.com%252F (last visited July 29, 2025)
2030	Burchfiel Oral History
2031	Information Disclosure Statement for U.S. Patent No. RE47,720 filed on October 14, 2024
2032	<i>Ex Parte</i> Reexamination Certificate for U.S. Patent No. RE47,720 issued on August 26, 2025
2033	Exhibit 2 to Second Amended Complaint, Dkt. No. 34-2, <i>USTA Technology, LLC. v. Lenovo Group Limited, et al.</i> , No. 4:24-cv-00515 (E.D. Tex. June 7, 2024)

I. INTRODUCTION

Petitioners Intel Corporation and Lenovo (United States) Inc. (“Petitioners”) filed a Petition for *Inter Partes* Review of claims 53 and 95 of U.S. Patent No. RE47,720 (“the ’720 Patent”) on April 29, 2025. In addition to the reasons set forth in Patent Owner’s Discretionary Denial Briefing (Paper No. 7), the Petition should be denied on the merits, for the following reasons.

II. BACKGROUND

A. Background on Technology and ’720 Patent

The ’720 patent resulted from the pioneering efforts of Jerry D. Burchfiel (hereinafter “the Inventor”) in the area of spectrum management in wireless networking systems. Dr. Burchfiel has been at the forefront of technological advances in networking going back to at least the 1960s through his work at Lincoln Labs at MIT and then at BBN.¹ The ’720 patent represents another example of his innovations in the area of networking, and in particular, wireless networking.²

His efforts resulted in the development of a method and apparatus for increasing the available spectrum in a wireless network by sharing existing allocated (and in-use) portions of the RF spectrum in a manner that will minimize the probability of interfering with existing legacy users in 2002. At the time of these pioneering efforts, there was increasing demand for spectrum-based services and

¹ See *generally* Ex. 2030 (Burchfiel Oral History). BBN has been part of GTE, Verizon and Raytheon over the years.

² *Id.*

devices to address decreasing wireless communications network bandwidth. Moreover, managing interference levels was made particularly difficult by the greater density, mobility and variability of “next generation” (XG) radio frequency emitters. (*See* Ex. 1001 at 1:19-34.)

While the then-existing solutions for spectrum management to address increasing demand for spectrum-based services and devices sought to assign locally unoccupied portions of the RF spectrum to XG users, the FCC Spectrum Management Policy Task Force recommended that secondary users of a band are required to accept interference from primary users, and must cause no “harmful” interference to the primary users. The Task Force policy permitted secondary (e.g., unlicensed) users to radiate only enough power in an area of interest to raise the interference temperature in the band to a specified threshold T_0 for the band, service, and locality, and would create an opportunity to “underlay” existing primary applications with low-power, low-impact opportunistic applications that operate below the threshold. (*See* Ex. 1001 at 1:35-53.)

However, the Spectrum Policy Task Force Report did not address how to build and configure networks and devices that comply with the proposed rules. Accordingly, the Inventor conceived of the inventions in the '720 patent as a way to describe tools, devices and applications users can build, configure and deploy in order to take advantage of the proposed spectrum policies. (*See* Ex. 1001 at 1:54-62.)

For example, the Inventor conceived of a node of a network communications system that could be configured to:

(a) Continuously carry out real-time sensing and characterization of the local spectrum usage by (potentially interfering) narrowband and-wideband emitters;

(b) Dynamically and autonomously adapt (on a time scale of milliseconds) to the local spectrum environment by selecting and controlling the waveforms (power spectral density (PSD) and Media Access Control (MAC) protocols) that its network neighbors use when transmitting to this node;

(c) Automatically carry out a closed loop power control algorithm with each neighbor to throttle back on unnecessarily high power levels, thereby enhancing Low Probability of Detection (LPD);

(d) Apply transmission security (“TRANSEC”) parameters to the spread spectrum modulation process in order to enhance Low Probability of Intercept (LPI); and/or

(e) Carry out packet forwarding (routing) in a way that balances aggregate network throughput against average end-to-end delay. (This results in real time traffic, e.g., voice, being sent with higher power, minimizing latency due to channel access delays at multiple hops, and bulk traffic being sent with lower power, minimizing network self-interference, maximizing spatial reuse of frequencies and enhancing LPI/LPD).

(See Ex. 1001 at 2:12-38.)

The inventions of the '720 patent also provide a way to underlay new services on then-existing bandwidth allocations with minimal or no interference to, and from, existing legacy users, by underlaying spectrum-efficient megabit rate networking onto bands allocated for other purposes, while providing up to 30 times greater throughput than then-current spectrum management systems. (See Ex. 1001 at 2:7-11.) For example, military networking could underlay any narrowband-channelized spectrum where individual channels have less than 100% duty cycle, such as in commercial cellular, without interfering with existing legacy users of these bands. At the same time, the flexible hardware and software made possible by the inventions of the '720 patent will also operate in other frequencies without hardware modification when necessary, such as in overseas locations and in wartime. (See *id.* at 2:49-64.)

The inventions of the '720 patent address individual spectrum management devices and provide an integrated system concept for dynamic, adaptive, radio frequency spectrum assignment and use. The result is far greater spectrum efficiency, providing megabit/sec rate communications networks that can extend far beyond the capabilities of then-existing wireless networking systems and devices. (See Ex. 1001 at 1:66-2:7.)

Moreover, the design of the highly advanced networking communications architecture described and claimed by the '720 patent combines dynamic spectrum

management techniques with matching adaptive networking and full exploitation of multiple transceivers per communications node. The inventions of the '720 patent thus provide increased flexibility and scalability, and may be easily adapted for use with other forward-looking wireless communications systems and technologies. (See Ex. 1001 at 2:39-48.) The inventions of the '720 patent overcome problems specifically arising out of how to design and develop tools, devices and applications that take advantage of the spectrum management policies proposed by the FCC Spectrum Management Policy Task Force. (See Ex. 1001 at 1:54-62.)

B. Challenged Claims

1. Claim 53

Claim 53 is directed to a method performed by Wi-Fi access points. It is reproduced below:

53. A method for managing interference in a radio communications network, comprising the steps of:

receiving at a first node in the radio communications network an instruction transmitted from a second node in the radio communications network to avoid using a plurality of frequencies to transmit to the second node;

filtering a transmission signal to remove power from the transmission signal at each frequency in the plurality of frequencies to be avoided;

transmitting the filtered transmission signal to the second node;

receiving a compressed first feedback from the second node that characterizes receipt of a first signal sent from the first node to the second node;

receiving a compressed second feedback from a third node that characterizes receipt of a second signal sent from the first node to the

third node;

decompressing the compressed first feedback resulting in a decompressed first feedback; and

decompressing the compressed second feedback resulting in a decompressed second feedback;

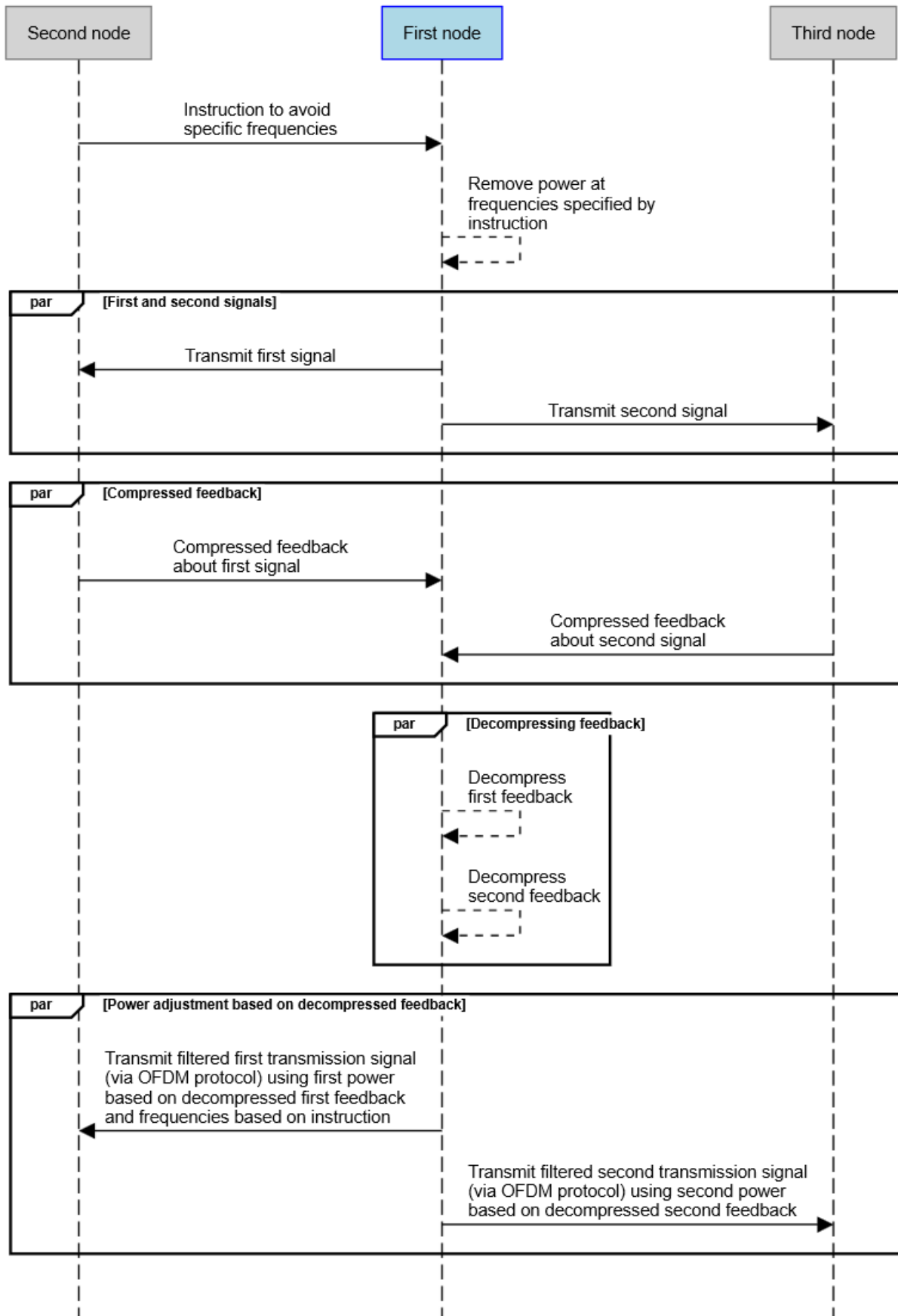
wherein the filtered transmission signal is a filtered first transmission signal that is transmitted to the second node using an 802.11-based orthogonal frequency-division multiplexing (OFDM) protocol via at least one antenna of a plurality of antennas, using a first power that is based on the decompressed first feedback; and further comprising:

transmitting, using the 802.11-based OFDM protocol, a filtered second transmission signal, simultaneously with the filtered first transmission signal, to the third node using a second power that is based on the decompressed second feedback.

The sequence diagram below is a visual depiction of the method recited in claim 53:³

³ Patent Owner's paraphrasing of claim 53 in this diagram is for convenience only. For the avoidance of doubt, the language of claim 53 controls.

Claim 53



In relevant part, and as illustrated above, claim 53 requires that the first node (shown in blue above) receives an instruction from a second node, receives compressed feedback from the second and third nodes that characterizes receipt of first and second signals sent by the first node to the second and third nodes respectively, decompresses the compressed feedback from the second and third nodes, and simultaneously transmits filtered transmission signals to the second and third nodes using a first and second power respectively.

2. Claim 95

Claim 95 is directed to a method performed by a Wi-Fi station. It is reproduced below:

95. A method for managing interference in a radio communications network, comprising the steps of:

receiving at a first node in the radio communications network an instruction transmitted from a second node in the radio communications network to avoid using a plurality of frequencies to transmit to the second node;

filtering a transmission signal to remove power from the transmission signal at each frequency in the plurality of frequencies to be avoided;

transmitting the filtered transmission signal to the second node;

separately from the receipt of the instruction, receiving a particular signal at the first node that is transmitted from the second node;

generating a feedback based on a received power and one or more frequencies via which the particular signal is received;

compressing the feedback; and

transmitting the compressed feedback from the first node to the second node, for use by the second node in determining a transmit

power with which the second node transmits to the first node via at least one antenna of a plurality of antennas, while simultaneously transmitting to one or more other nodes;

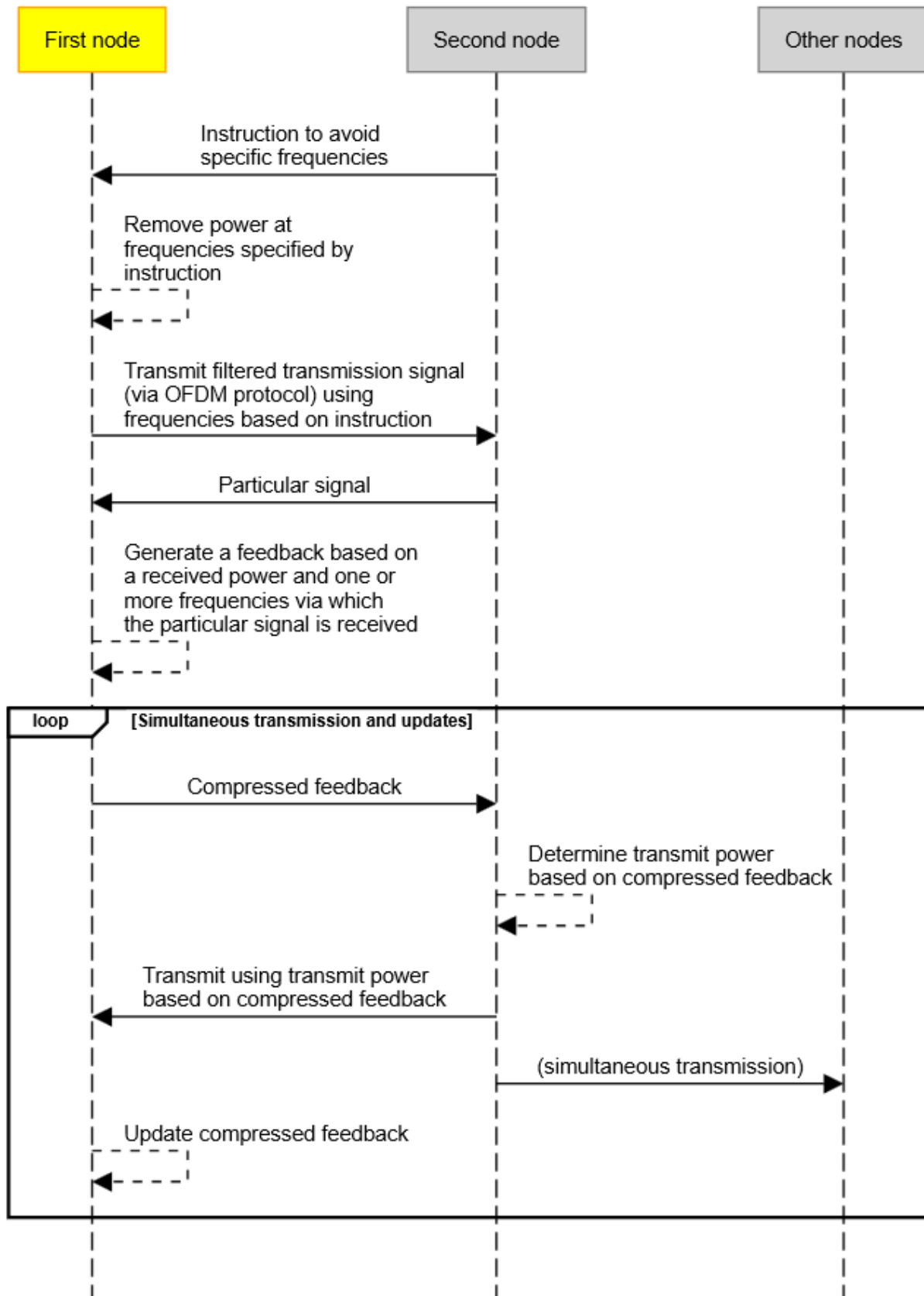
wherein the filtered transmission signal is transmitted to the second node using an 802.11-based orthogonal frequency-division multiplexing (OFDM) protocol;

wherein an update of the compressed feedback is repeatedly generated, compressed, and transmitted at time periods of less than one second; so that the transmit power is repeatedly updated based thereupon at time periods of less than one second.

The sequence diagram below is a visual depiction of the method recited in claim 95:⁴

⁴ Patent Owner's paraphrasing of claim 95 in this diagram is for convenience only. For the avoidance of doubt, the language of claim 95 controls.

Claim 95



In relevant part, and as illustrated above, claim 95 requires that the first node (shown in blue above) receives an instruction from a second node, filters and transmits a filtered transmission signal to the second node, receives a particular signal from a second node separately from the instruction, generates a feedback based on the particular signal received from the second node, compresses the feedback, and transmits the compressed feedback to the second node for use by the second node in determining a transmit power with which the second node transmits to the first node while simultaneously transmitting to one or more other nodes.

III. CITED REFERENCES

All of the references relied on in the Petition were considered during reexamination, (see Ex. 2031), which resulted in a issuance of a reexamination certificate on August 26, 2025. (Ex. 2032.)

IV. LEVEL OF ORDINARY SKILL IN THE ART

For purposes of this POPR only, Patent Owner does not contest Petitioner's definition of a POSITA but reserves the right to later offer a different definition in this or any other proceeding.

V. CLAIM CONSTRUCTION

In an *inter partes* review proceeding, “a claim of a patent . . . shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as

understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b).

The Petition alleges that no claim term requires express construction. (Pet. at 10.) For purposes of this Preliminary Response only, Patent Owner presents no express constructions of the claims. Patent Owner reserves the right to propose constructions of the claims should *inter partes* review be instituted.

VI. THE PETITION SHOULD BE REJECTED UNDER § 314(A) BECAUSE PETITIONER IS UNLIKELY TO PREVAIL WITH RESPECT TO ANY CHALLENGED CLAIM

A. Ground 1: Petitioner Has Failed to Show that Claim 53 Is Obvious over Walton and 802.11a under 35 U.S.C. § 103

Petitioner has failed to show that at least the following limitations in independent claim 53 of the '720 patent are suggested or taught by Walton alone or in view of 802.11a:

[53.4] receiving a compressed first feedback from the second node that characterizes receipt of a first signal sent from the first node to the second node;

[53.5] receiving a compressed second feedback from a third node that characterizes receipt of a second signal sent from the first node to the third node;

[53.8] wherein the filtered transmission signal is a filtered first transmission signal that is transmitted to the second node using an 802.11-based orthogonal frequency-division multiplexing (OFDM) protocol via at least one antenna of a plurality of antennas, using a first power that is based on the decompressed first feedback; and further comprising:

[53.9] transmitting, using the 802.11-based OFDM protocol, a filtered second transmission signal, simultaneously with the filtered first

transmission signal, to the third node using a second power that is based on the decompressed second feedback.

1. Petitioner Does Not Provide Sufficient Evidence that the Prior Art Teaches a Distinct “First Signal” and a “Filtered First Transmission Signal” as Recited by Elements [53.4] and [53.8]; and a Distinct “Second Signal” and “Filtered Second Transmission Signal” as Recited by Elements [53.5] and [53.9]

Claim 53 recites two pairs of distinct elements: (i) a “first signal” and a “filtered first transmission signal” (in elements [53.4] and [53.8], respectively); and (ii) a “second signal” and a “filtered second transmission signal” (in elements [53.5] and [53.9], respectively).

Claim 53 further recites that the “first signal” and “second signal” have a specific purpose: the first node subsequently receives from the second and third nodes “compressed [first/second] feedback” that “characterizes receipt of” the “[first/second] signal.”

On the other hand, the “filtered [first/second] transmission signal” is generated and transmitted from the “first node” (such as an AP), using a “[first/second] power” that is *based on the “[first/second] feedback.”* The “filtered [first/second] transmission signal” is therefore transmitted later in time relative to the “[first/second] signal.”

However, Petitioner does not provide sufficient evidence of any disclosures in its asserted prior art references for each of these distinct elements of claim 53.

To the extent Petitioner cites any disclosures from the references, it conflates the two sets of elements.

First, Petitioner argues that the “first signal” in Walton “includes ***either data and/or a pilot reference*** based on which the CSI is derived.” (Pet. at 33.) Indeed, Petitioner then refers to ***any*** “OFDM signal received by a terminal (*second node*) on the downlink from a base station (*first node*) that is used for deriving CSI” as “an example of a *first signal sent from the first node to the second node.*” (Pet. at 34.)

However, Petitioner fails to identify any such “data,” “pilot reference,” or “OFDM signal” with specificity. Nor does Petitioner attempt to demonstrate, or even allege, that Walton teaches “compressed [first/second] feedback” that characterizes receipt of any such “data,” “pilot reference,” or “OFDM signal” with specificity. For example, Petitioner fails to allege how any particular type of “feedback” characterizes receipt of any particular “[first/second] signal.”

Petitioner’s arguments therefore amount to little more than speculation that simply because some unspecified “data,” “pilot reference,” or “OFDM signal” may be used to derive CSI at some unspecified time, it is necessarily the “[first/second] signal” with the specific temporal and attributes recited in claim 53. These vague and conclusory assertions are insufficient to satisfy Petitioner’s burden to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim” and show a reasonable likelihood that it would prevail on a ground of

unpatentability. 35 U.S.C. § 312(a)(3); *see also Wasica Finance GmbH v.*

Continental Automotive Systems, Inc., 853 F.3d 1272, 1286-87 (Fed. Cir. 2017)

(“It is of the utmost importance that petitioners in the IPR proceedings adhere to the requirement that the initial Petition identify with particularity the evidence that supports the grounds for the challenge to each claim. . . . [T]he expedited nature of IPRs bring with it an obligation for petitioners to make their case in their Petition to institute.”).

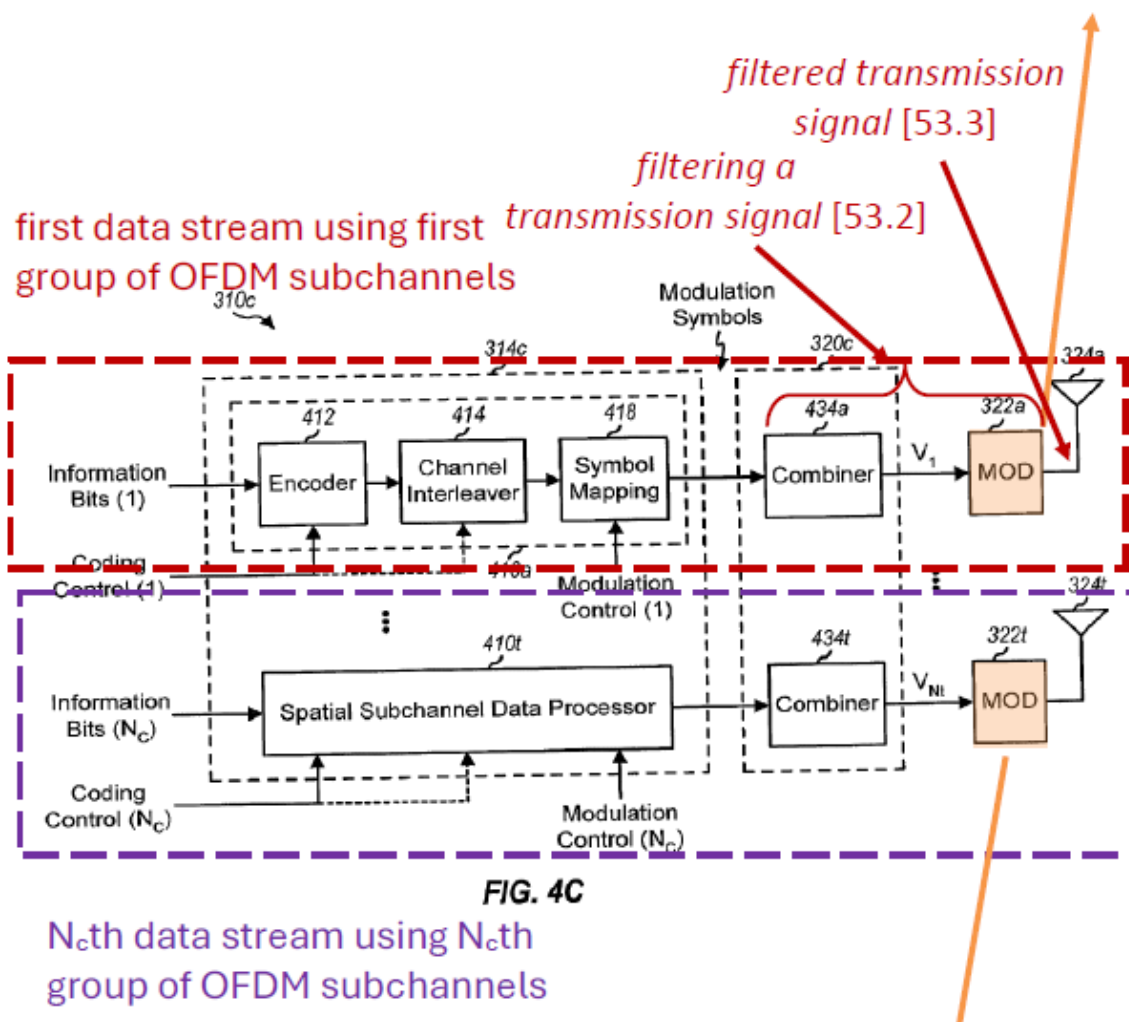
Petitioner similarly fails to identify with specificity a “filtered [first/second] transmission signal” in its asserted references. For elements [53.8] and [53.9], Petitioner simply refers back to its argument for element [53.3]. (Pet. at 41 (“Walton discloses or renders obvious *the filtered transmission signal is a filtered first transmission signal that is transmitted to the second node* for the same reasons as presented in element [53.3] because this claim language is substantially the same as [53.3]”).) However, in connection with elements [53.2] and [53.3], Petitioner does not identify any particular signal as the “filtered [first/second] ***transmission signal.***” Instead, Petitioner overlooks the required functionality of the “filtered . . . transmission signal” and focuses its argument only on the “filtering” aspect of the claim:

power is removed from the “unselected” or “bad” frequency subchannels (*frequencies to be avoided*) to create the modulated signal (*a transmission signal after filtering*). **Walton’s “modulated signal” is an example of a transmission signal that has been filtered because only selected frequency subchannels are used**

while the unselected/“bad” frequency subchannels (frequencies to be avoided) are not, id., [0010], [0031], thereby disclosing or rendering obvious filtering a transmission signal to remove power from the transmission signal at each frequency in the plurality of frequencies to be avoided.

(Pet. at 25 (italics in Pet., bold underlining added).)

Petitioner goes on to annotate Fig. 4C from Walton to purportedly describe how the “filtered . . . transmission signal” is generated:



(Pet. at 26.)

However, regardless of any “filtering” purportedly taught by Walton, Petitioner fails to identify any disclosure in Fig. 4C or elsewhere in Walton of a

“filtered . . . **transmission signal**.” At best, Petitioner labels the upper half of Fig. 4C as a “first data stream using first group of OFDM subchannels” and the output of MOD 322a in Fig. 4C as a “filtered transmission signal.” However, Petitioner does not offer any argument or evidence for why anything in Fig. 4C shows a “filtered [first/second] transmission signal” as recited in the claim.

Specifically, Petitioner does not offer any evidence that any particular signal at the output of MOD 322a is generated and transmitted from the “first node,” using a “[first/second] power” that is *based on the “[first/second] feedback.*” Indeed, Petitioner does not provide **any** evidence that any “feedback” affects any of the functionality illustrated in Fig. 4C.

Nor does Petitioner offer any evidence that a “filtered . . . transmission signal” is distinct from the “[first/second] signal” of elements [53.4] and [53.5]. As set forth above, Petitioner simply refers to “data and/or a pilot reference” as the claimed “[first/second] signal.” (See Pet. at 33, citing Ex. 1005 ¶¶ [0212], [0142], [0192].) However, none of the cited paragraphs of Walton describe any signal that is distinct from that illustrated by Petitioner’s “filtered transmission signal” in its annotated Fig. 4C. Nor does Petitioner cite any other figures or teachings from Walton, or expert testimony, as purportedly showing a “[first/second] signal.” (See *generally* Pet. at 33-34.) Therefore, as best as Patent Owner can understand the argument in the Petition, Petitioner appears to rely on Fig. 4C and its description as showing the transmission of **both** a “[first/second] signal” **and** a “filtered

[first/second] transmission signal.” But this is contrary to the express requirements that a “filtered [first/second] transmission signal” is distinct from and later in time to a “[first/second] signal.” Because Petitioner misapprehends these claim requirements and fails to identify a “[first/second] signal” that is distinct from a “filtered [first/second] transmission signal,” it does not meet its burden under § 312(a)(3) to show that elements [53.4], [53.5], [53.8.1], and [53.9] are present in Walton.

B. Ground 2: Petitioner Has Failed to Show that Claim 53 Is Obvious over Walton, 802.11a, and McFarland under 35 U.S.C. § 103

Petitioner does not rely on the teachings of McFarland for elements [53.1], [53.4], [53.5], [53.8.1], and [53.9]. (*See* Pet. at 53-61.) Therefore Ground 2 fails for the same reasons as set forth for Ground 1.

C. Ground 3: Petitioner Has Failed to Show that Claim 53 Is Obvious over Walton, 802.11a, and Peterson under 35 U.S.C. § 103

Petitioner does not rely on the teachings of Peterson for elements [53.1], [53.4], [53.5], [53.8.1], and [53.9]. (*See* Pet. at 61-66.) Therefore Ground 3 fails for the same reasons as set forth for Ground 1.

D. Ground 4: Petitioner Has Failed to Show that Claim 53 Is Obvious over Walton, 802.11a, McFarland, and Peterson under 35 U.S.C. § 103

Petitioner does not rely on the teachings of McFarland or Peterson for elements [53.1], [53.4], [53.5], [53.8.1], and [53.9]. (*See* Pet. at 65-66.) Therefore

Ground 4 fails for the same reasons as set forth for Ground 1.

E. Ground 5: Petitioner Has Failed to Show that Claim 95 Is Obvious over Walton, IEEE-802.11a, and Bohnke under 35 U.S.C. § 103

Petitioner has failed to show that at least the following limitations in independent claim 95 of the '720 patent are suggested or taught by Walton alone or in view of 802.11a and Bohnke.

[95.7] transmitting the compressed feedback from the first node to the second node, for use by the second node in determining a transmit power with which the second node transmits to the first node via at least one antenna of a plurality of antennas, while simultaneously transmitting to one or more other nodes;

1. Petitioner Fails to Identify a “Second Node” that “Simultaneously Transmit[s] to One or More Other Nodes,” as Recited by Element [95.7]

As set forth above, claim 95 of the '720 patent is directed to functionality performed by a WiFi station. Specifically, unlike with claim 53, the “first node” in claim 95 corresponds to any WiFi station, while the “second node” in claim 95 performs functionality that can only be performed by a WiFi access point, specifically, the capability to “*simultaneously transmit*[] to one or more other nodes” while also transmitting to the first node, as recited in element [95.7]. Petitioner’s entire argument as to claim 95 in Grounds 5 and 6 misses the mark because it overlooks this critical distinction between claims 53 and 95.

Specifically, as shown by the color-coded annotations below, it is the *second node* that “simultaneously transmi[ts]” to “the first node via at least one antenna of

a plurality of antennas” **and** to “one or more other nodes”:

[95.7] transmitting the compressed feedback from the first node to the second node, for use by the second node in determining a transmit power with which **the second node transmits to the first node via at least one antenna of a plurality of antennas, while simultaneously transmitting to one or more other nodes;**

This understanding of element [95.7] is consistent with Patent Owner’s infringement contentions in the co-pending district court litigation, where Patent Owner alleged Petitioner’s WiFi stations as satisfying the requirements of the claimed “first node.” (Ex. 2033 at 1-2, 61-108.)

However, Petitioner attempts to rewrite the claim language to suggest that the **first node**, which “transmit[s] the compressed feedback . . . to the second node,” is the node that “simultaneously transmi[ts] to one or more other nodes.” Indeed, Petitioner seeks to cover up its flawed logic by creatively subdividing element [95.7] into sub-elements [95.7.1]-[95.7.3]. (See Pet. at 73-78.) Here, Petitioner delineates the “simultaneously transmitting” requirement of element [95.7] as sub-element [95.7.3] and in doing so, erroneously suggests that the “simultaneous transmitting” be performed by “base station 104,” i.e., its purported **first node**:

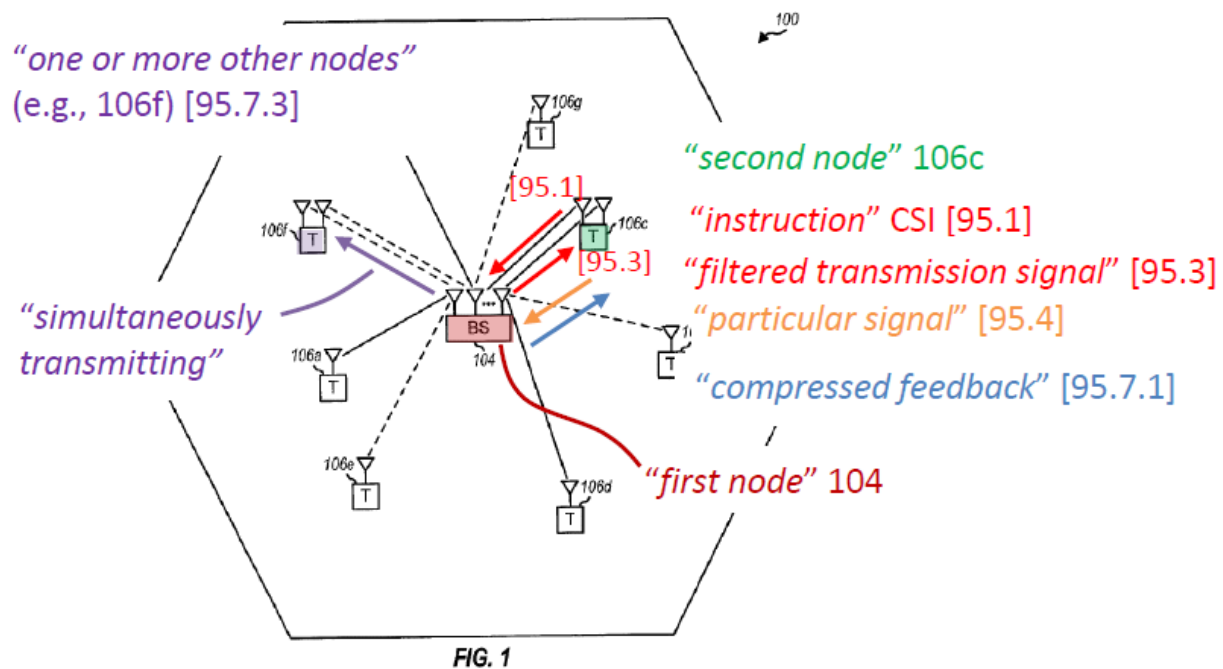
Third, Walton discloses or renders obvious element [95.7.3].

The base station includes both a transmitter system 310 and a receiver system 350, Ex.1005, [0225], wherein the transmitter system 310 transmits data from a data source 312, *id.*, [0134]-[0135], and the receiver system 350 transmits CSI (per [95.7.1]). There are multiple (NT) antennas “associated with a single transmitter system,” and multiple (NR) antennas “associated with a single receiver system.”

Id., [0025]; *see also* [0134], Figure 3, [0225]. Thus, **the transmitter system 310 of base station 104 has NT antennas and the receiver system 350 has NR antennas.** Walton provides express motivation, or is at least suggestive, that **the transmitter system 310 and receiver system 350 simultaneously transmit to different terminals.** *Id.*, [0024]-[0025] (“[B]ase station 104 [] concurrently communicates with a number of terminals (T) 106.”). It would have been obvious that **Walton’s CSI feedback (compressed feedback) is transmitted from base station 104 to terminal 106c (second node) via receiver system 350 (per the analysis of [95.7.1]) at the same time the transmitter system 310 is transmitting data to other terminals,** yielding a benefit that data transmission from transmitter system 310 to some terminals continues uninterrupted (does not pause) while CSI is transmitted to a different terminal.

...

For example, **the base station 104 may transmit CSI to terminal 106c using the antennas of its receiver system 350 at the same time as transmitting data to terminal 106f** using transmitter system 310, as illustrated below. Ex.1003, ¶219.



Ex.1005, Figure 1 (annotated); Ex.1003, ¶219

(Pet. at 77-79 (bold underlining added).)

Petitioner’s attempted rewriting of the claim language defies basic rules of grammar. Under the correct interpretation of element [95.7] considered as a whole, Petitioner fails to identify ***any*** teachings in its asserted reference of a “second node” that is capable of “simultaneously transmitting to one or more other nodes” while also transmitting to the first node. Therefore, Petitioner fails to meet its burden under § 312(a)(3) to show a reasonable likelihood that it would prevail on any ground of unpatentability as to claim 95.

Therefore, Ground 5 fails.

F. Ground 6: Petitioner Has Failed to Show that Claim 95 Is Obvious over Walton, IEEE-802.11a, Bohnke, and McFarland under 35 U.S.C. § 103

Petitioner does not rely on the teachings of McFarland for element [95.7]. (See Pet. at 85-86.) Therefore Ground 6 fails for the same reasons as set forth for Ground 5.

VII. CONCLUSION

Pursuant to 35 U.S.C. § 314, Patent Owner respectfully requests that the Board refuse to institute *inter partes* review for the reasons stated herein.

Dated: August 29, 2025

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CERTIFICATE OF COMPLIANCE

Pursuant to 37 C.F.R. § 42.24(b) and (d), the undersigned hereby certifies that this Patent Owner Preliminary Response complies with the type-volume limitation of 37 C.F.R. § 42.24(b)(1) because, exclusive of the exempted portions, it contains 4,317 words as counted by the word-processing system used to prepare the paper.

Dated: August 29, 2025

/ Andrew Sherman /
Andrew Sherman

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was served on
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