

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

COMCAST CABLE COMMUNICATIONS, LLC,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC,
Patent Owner.

Case IPR2024-00431
Patent 7,295,518

**PETITIONER'S REQUEST FOR REHEARING PURSUANT TO
37 C.F.R. §42.71(d)**

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I. INTRODUCTION

Petitioner respectfully submits that in finding claim 2 not unpatentable, the Board erroneously applied a claim construction that was different from the claim construction explicitly adopted by the Board in the Final Written Decision (Paper No. 32, hereinafter “FWD”). This request is timely filed within thirty (30) days of the FWD, and the affected issues are addressed below.

II. ARGUMENT

A. The Board’s Finding Regarding Claim 2 Under Ground B Was Contrary To The Claim Construction Previously Adopted By The Board

In the FWD, the Board found that Petitioner failed to show that claim 2 would have been obvious over the Ground B combination of Afshary, Mirfakhraei, and Welles. FWD, pp. 69-71. Petitioner respectfully submits that this finding was based on misapplying the claim construction for a means-plus-function term previously adopted by the Board and overlooking Petitioner’s arguments.

Claim 2 recites the following:

2. The data communication network of claim 1 wherein a network device comprises a means for determining signal activity and selects a frequency band for operation that is not used by other services.

Petitioner argued that the term “means for determining signal activity” is a means-plus-function term, that its function is “determining signal activity,” and that the corresponding structures include, *inter alia*, an envelope detector. Pet., pp. 23-

25. Petitioner further argued that all other terms of claim 2 should be given their ordinary and customary meaning. Pet., pp. 23-24. The Board explicitly adopted Petitioner’s construction for the term “means for determining signal activity” and stated that the ordinary and customary meaning would apply to all other claim terms. FWD, pp. 12-15; *see also* ID, p. 12.

In arguing Ground B in the Petition, Petitioner identified the envelope detector of Welles as performing the corresponding function (“determining signal activity”) and being the corresponding structure (an envelope detector) for the “means for determining signal activity.” Pet., pp. 69-73. Petitioner separately addressed the limitation of a “network device ... [that] selects a frequency band for operation that is not used by other services” and showed that both Welles and Afshary taught this limitation. Pet., pp. 72-73. Patent Owner did not dispute these arguments.¹ POR, pp. 6, 71.

However, in its finding regarding Ground B, the Board stated:

¹ Patent Owner only argued that Welles, in Ground B, did not remedy the alleged deficiencies of the combination of Ground A. Patent Owner did not make any arguments with regard to the limitations added in dependent claim 2. POR, pp. 6, 71.

While we agree with Petitioner that Welles's envelope detector detects signal activity, we do not agree that it, at least not alone, "selects a frequency band for operation that is not used by other services." Rather it appears that the receiver 300 (which includes envelope detectors 192, 194) and CPU 900 together perform that function.

FWD, p. 71. This statement appears to indicate that the Board considered the limitation "selects a frequency band for operation that is not used by other services" to be a function performed by the "means for determining signal activity," and thus that it must be performed by Welles's envelope detector.

This is contrary to the claim construction adopted by the Board for the "means for determining signal activity" and contrary to the Board's application of that construction under Ground A.

1. The Board Correctly Construed "Means for Determining Signal Activity" As Only Performing the Function of Determining Signal Activity

The Board's claim construction in the FWD for "means for determining signal activity" is correct in finding that the sole corresponding function is "determining signal activity." FWD, pp. 12-15. The means language does not include a function that "selects a frequency band for operation that is not used by other services," but rather it is the "network device" that "selects a frequency band for operation that is not used by other services."

This is apparent from the grammatical construction of the claim language itself. Claim 2 recites:

2. The data communication network of claim 1 wherein a network device comprises a means for determining signal activity and selects a frequency band for operation that is not used by other services.

Use of the word “selects” in claim 2 indicates that it modifies “network device” as in “a network device comprises . . . and selects . . .”. Thus, the limitation of “selects a frequency band for operation that is not used by other services” is to be performed by the network device.

In contrast, to read claim 2 as if the selection of a frequency band is to be performed by the means-plus-function element effectively replaces “selects” with “selecting,” as in “a network device comprises means for determining . . . and selecting . . .”. But construing the claim as if it used “selecting” rather than “selects” goes against Federal Circuit precedent. *See, e.g., Lucent Techs., Inc. v. Gateway, Inc.*, 525 F.3d 1200, 1215 (Fed. Cir. 2008) (claims are construed as drafted). Thus, the Board’s adoption of Petitioner’s construction (that the “means for determining signal activity” is met by an envelope detector that determines signal activity) with no requirement that the envelope detector perform frequency band selection is correct. FWD, p. 13.

Further, neither Petitioner nor Patent Owner advanced a construction that included “selects a frequency band for operation that is not used by other services” as a function to be performed by the “means for determining signal activity.”²

2. In its Analysis of Ground A, the Board Correctly Did Not Include “Selects a Frequency Band” Within the “Means for Determining”

Under Ground A, the Board applied the construction of the term “means for determining signal activity” and analyzed this term separately and apart from the limitation “selects a frequency band for operation that is not used by other services.” FWD, pp. 61-62. The Board did not limit its analysis regarding the “selects” limitation to the structure corresponding to the “means for determining signal activity.” *Id.* In particular, in finding the “selects” limitation is not met under Ground A, the Board did not analyze whether it was performed by the DFT block implementing a DFT on samples from an A/D converter that Petitioner argued was the “means for determining,” but rather analyzed whether it was performed by the “network device” of the Afshary-Mirfakhraei system (as argued by Petitioner). *Id.* (“The Afshary-Mirkfakhraei [sic] combination does not disclose *a network device*

² In fact, Patent Owner did not dispute Petitioner’s constructions in any respect. FWD, p. 12; POR, p. 70.

with the capability to select between frequency bands (as opposed to channels or subchannels within a frequency band).” (emphasis added)).

3. In its Analysis of Ground B, the Board Mistakenly Included “Selects a Frequency Band” Within the “Means for Determining”

In view of the Board’s construction and the Board’s analysis under Ground A, Petitioner submits that the Board misapplied the construction of the term “means for determining signal activity” under Ground B.

In its analysis of Ground B, the Board agreed with Petitioner’s identification of the envelope detector of Welles as the structure corresponding to the “means for determining signal activity.” FWD, p. 71.

However, the Board erred in its analysis of the “selects a frequency band” limitation. Petitioner did not argue that Welles’s envelope detector alone taught the limitation “selects a frequency band for operation that is not used by other services” but rather that the network device of the Afshary-Mirfakhraei-Welles combination as a whole did (consistent with the claim construction). The Board mistakenly overlooked that its own claim construction did not require the “selects a frequency band” limitation to be performed by the means element alone, even though it recognized that Petitioner had cited evidence as to why Welles as a whole taught this limitation. FWD, p. 71, fn. 7 (“Petitioner cites evidence in Welles that the receiver and CPU select a frequency band free of interference and noise for

communication”); *see also* FWD, p. 70 (“[Welles] uses frequency pairs in this range to communicate, and receiver 300 and CPU 900 may detect spurious data or noise in portions of the frequency range and select alternative operational frequencies within that range for transmission.”).

As a consequence of misapplying the construction of the means term under Ground B, the Board erroneously treated the claim as requiring that the “means for determining signal activity” also perform “selects a frequency band for operation that is not used by other services.” In other words, because the Board misapplied the construction of the means term of claim 2 under Ground B – by erroneously including the limitation “selects a frequency band for operation that is not used by other services” as part of the function of the means term – the Board only analyzed whether Welles’s envelope detector taught this further limitation of claim 2. FWD, p. 71. As a result, the Board did not consider Petitioner’s cited evidence and arguments as to why Welles more broadly taught this feature by its network device, even though the Board acknowledged that Welles does so. FWD, p. 71, fn. 7.

Petitioner therefore respectfully submits that the Board’s findings regarding claim 2 under Ground B were based on misapplication of the claim construction adopted by the Board, causing the Board to overlook Petitioner’s arguments that the limitation “a network device ... selects a frequency band for operation that is not used by other services” is separately taught by Welles, and mistakenly limited its

analysis regarding this limitation to the structure identified as corresponding to the term “means for determining signal activity.”

III. CONCLUSION

For at least the reasons above, Petitioner submits that the Board erred in the FWD, and respectfully requests reconsideration of these issues.

Dated: October 6, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §42.6(e)(4), the undersigned hereby certifies that the foregoing PETITIONER'S REQUEST FOR REHEARING PURSUANT TO 37 C.F.R. §42.71(d) was served electronically via e-mail on the following counsel of record for Patent Owner:

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