

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DIGITAL GLOBAL SYSTEMS, INC.,
Petitioner,

v.

DEEPSIG INC.,
Patent Owner.

Case IPR2025-00194
U.S. Patent No. 11,777,540

AUTHORIZED RESPONSE TO DIRECTOR REVIEW REQUEST

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Patent Owner DeepSig Inc. (“Patent Owner”) files this response to Petitioner’s Request for Director Review (“Request”) of the Board’s decision denying the Petition. This response was authorized by email. Ex. 3100.

I. THE REQUEST FOR DIRECTOR REVIEW IS FILLED IMPROPER NEW ARGUMENTS, AND FAILS TO ESTABLISH ANY ABUSE OF DISCRETION BY THE BOARD

This is the third petition filed by Petitioner against Patent Owner’s patents, and the second petition denied institution by the Board. In IPR2025-00049, the Board faced the substantially similar grounds of challenge based on the same asserted combinations of art (Jüschke and Holt), to address similarly claimed features of the patent-at-issue in that case. The Board denied that petition on March 27, 2025. Petitioner sought panel rehearing on April 28, 2025, but the Board was unpersuaded, and on June 13, 2025, denied Petitioner’s request for rehearing in IPR2025-00049. The Board also reviewed the Jüschke and Holt references in the first IPR filed by Petitioner, IPR2024-01358. Thus, this IPR represents the third time that the Board has carefully considered these references.

Rather than requesting panel rehearing like it did in IPR2025-00049, here Petitioner seeks Director assistance. But Petitioner seems to incorrectly believe that a request for director review is a chance to create new merits arguments. As a result, Petitioner improperly fills its Request with new arguments, and asks the Director to reverse the Board’s decision without even attempting to establish where

its current arguments were presented to the Board below. They were not.

Indeed, Petitioner complains that the Board “interpreted claims 4 and 12 incorrectly, which led it to abuse its discretion in denying institution.” Request, 3. But in the Petition, Petitioner elected not to advance any claim construction positions. Petitioner’s position was that “No claim term requires construction to resolve the patentability challenges here. Petitioner therefore interprets all claim terms in accordance with their plain and ordinary meaning.” Pet., 13. Further, after the POPR was filed, Petitioner did not seek permission to file a pre-institution reply to address any of Patent Owner’s arguments. Instead, as discussed below, Petitioner waited for its Request for Director Review to first raise its counter-arguments on claim construction. This is improper.

II. THE REQUEST’S ARGUMENTS ON CLAIM CONSTRUCTION WERE NOT ADVANCED BELOW

In Section III.A, Petitioner argues that the “Board incorrectly determined that claim 4 requires using a signal actually transmitted and received.” Request, 4. Claim 4, however, expressly requires the step of “obtaining a received radio signal ... received at the one or more radio receivers.” The Board’s correct interpretation was plainly not an abuse of discretion given this claimed requirement.

Nevertheless, without ever pointing to where Petitioner argued a different construction below, Petitioner piles on in Section III.A with over two pages filled with criticism about the Board’s analysis of claim 4. This is improper, at least

because 37 C.F.R. § 42.104(b)(3) puts the claim construction onus on the petitioner to provide its claim construction at the outset. Petitioner's inability to point to even a single statement in the record below on Petitioner's position regarding the proper interpretation of claim 4 should be dispositive that its complaints are untimely. Moreover, undercutting its argument, Petitioner's own expert looked to references that had a "communication channel" and "receiver" when attempting to establish the invalidity of claim 4. Ex. 1003, ¶231 (addressing limitation 4A).

In Section III.B, Petitioner complains that "claim 12 does not require obtaining a 'received radio signal' that was *actually transmitted* and *received* at a receiver, as the Board contends." Request, 8 (emphasis in original). Again, claim 12 expressly requires "a transmit radio signal," and "the received radio signal," which matches how Petitioner's expert interpreted the claim. *See* Ex. 1003, ¶258.

Petitioner newly complains that claim 12 requires this "received radio signal" "to be derived (*i.e.*, modeled) from the claimed 'transmit radio signal.'" Request, 7. Again, this is a new claim construction argument that was not advanced in the Petition. Nowhere in the Petition did Petitioner assert that the "received radio signal" of claim 12 must be construed as or limited to a "modeled" received radio signal. Confirming its own deficiency, Petitioner again advances this new argument without once citing to where below it advanced this argument:

Notably, claim 12 does not require obtaining a “received radio signal” that was *actually transmitted* and *received* at a receiver, as the Board contends. (E.g., Decision at 7 (discussing claim 4), 14-15 (referring to the same reasoning for claim 12).) Instead, according to the plain language of claim 12, the “received radio signal” that is “obtain[ed]” in claim 12 is based on processing the claimed “transmit radio signal.” That is, the claimed “received radio signal” is a *modeled* signal derived from processing the “transmit radio signal” through the machine learning model and, e.g., adding interference or distortion to it. There is no requirement in claim 12 that the “received radio signal” actually be transmitted and received and thus suffer from actual environmental distortions (e.g., linear, nonlinear, or interference). The claim instead requires obtaining a “received radio signal” through processing the “transmit radio signal.”

See Request, 8. A request for Director review is not the time for new arguments.

Section III.B of the Request also includes Petitioner’s new argument that the “representation” recited in claim 4 “requires a *modeled* (i.e., a ‘representative’) received signal” (Request, 9 (emphasis in original)), and Petitioner faults the Board for not addressing the “representation.” But again, Petitioner did not make this argument below, and cannot first present new claim construction arguments with a request for director review. Petitioner alleges that the specification of the ’540 patent supports its new claim construction, but fails to explain why it is proper to

adopt a limiting claim construction based on one disclosed embodiment. Request, 9-10. And again, this argument is new and was not advanced below.

Section III.C of the Request is directed to Petitioner's argument that it allegedly satisfied the standard for institution under claim constructions that it never advanced below. This is a non-starter. Petitioner cannot establish any error in the Board's conclusions where that alleged error depends upon arguments that were first advanced in a request for director review.

III. PETITIONER'S FINAL ARGUMENT IS A LEGAL IMPOSSIBILITY

Petitioner's final argument in the Request is that the Petition should be instituted on dependent claim 13 despite Petitioner *failing* to establish unpatentability for its base claim, independent claim 12. This is a legal impossibility. A dependent claim includes all the features of the underlying independent claim, and where Petitioner fails to establish any likelihood that independent claim 12 is unpatentable, Petitioner cannot establish that dependent claim 13 would be unpatentable. *See In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) ("dependent claims are nonobvious if the independent claims from which they depend are nonobvious"). It is absurd for Petitioner to ask the Director to institute against a single dependent claim where the Board correctly found that the base independent claim was not successfully challenged. Once again, denying the Petition for these stated reasons establishes no abuse of discretion.

Dated: July 2, 2025

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CERTIFICATE OF SERVICE

Petitioner has consented to e-mail service in this proceeding. Pursuant to 37 C.F.R. §42.6, the undersigned certifies that on this date, a copy of the foregoing document was served by email upon the following counsel at the below email addresses:

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