

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DISH NETWORK L.L.C.,
Petitioner,

v.

ENTROPIC COMMUNICATIONS, LLC,
Patent Owner.

Case IPR2024-00373
Patent 7,594,249

PETITIONER'S REPLY TO
PATENT OWNER'S PRELIMINARY RESPONSE

There is no reason to deny institution under 35 U.S.C. § 325(d) at least because: (1) the asserted references are not cumulative to any applied during prosecution; (2) the *ex parte* reexamination, which the USPTO terminated today, has not invoked grounds or issues that substantively overlap with those at issue here; and (3) none of the *Advanced Bionics* factors favor discretionary denial.

I. *ADVANCED BIONICS* DOES NOT SUPPORT DISCRETIONARY DENIAL UNDER 35 USC § 325(D)

“Under § 325(d), the Board uses the following two-part framework: (1) whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of [the] first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics, LLC v. Med-El Elektromedizinische Geräte GMBH*, IPR2019-01469, Paper 6 (P.T.A.B. Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). An examination of the prosecution history and on-going re-examination proceedings (EPRX) confirms the Board should not deny Petitioner’s IPR request under 325(d).

A. Amit Is Not Cumulative of Art Considered During Prosecution

PO argues that Petitioner’s primary reference in this IPR proceeding, Amit (DISH1005), is cumulative to Kliger (EX2004) and Humpleman (EX2005). POPR, 57-58. PO’s argument rests on an overbroad assertion of cumulateness based on

two high-level similarities allegedly shared by the references, *viz.*, that the references describe (1) networks that are “akin to” “in-home coaxial networks” and (2) “a filter-type device” filtering incoming signals into a home network. POPR, 57.¹ However, cumulativeness is not established through purported high-level similarities particularly when each reference discloses different network architectures.

In *University of California v. Eli Lilly*, 119 F.3d 1559, 1575 (Fed. Cir. 1997), the Federal Circuit set forth a high bar to determine cumulativeness by holding that two references are cumulative if they are “essentially the same.” The Federal Circuit explained that a cumulative reference is one that “teaches no more than what a reasonable examiner would consider to be taught by the prior art already before the PTO.” *Id.* PO’s sole reliance on two alleged high-level similarities thus cannot sustain its cumulative assertion.

First, Amit is not cumulative because it addresses different problems in the art than Kliger and Humpleman. For instance, Amit addresses overloading and intolerable delays when using cable modems. DISH1004, 2:18-58. In contrast, Kliger addresses a “demand for interconnectivity without the necessity of changing physical wiring,” and Humpleman provides a low-cost solution for connecting home and external networks. EX2004, ¶¶ [4]-[5]; EX2005, 2:1-7. Amit is thus not cumulative because its teachings go beyond “what a reasonable examiner would

¹ Petitioner does not concede the three references share these alleged similarities.

consider to be taught by” Kliger and Humpleman. *Uni. of Cali.*, 119 F.3d at 1575.

Second, Amit is not cumulative because it includes relevant disclosures that are not in Kliger or Humpleman. Amit describes a filter where “[t]he reflection from the notch filter is in the power of the signal or it might be higher,” allowing “this reflection [to be] our main signal.” DISH1005, 14:1-5. Neither Kliger nor Humpleman describes such a filter. Indeed, PO admitted as much during prosecution, arguing that “Kliger takes [] signals in and loops them back out after processing those signals,” which requires “significantly more” hardware “than just the filter.” DISH1002, STAMP-33. Likewise, the ’249 patent describes Humpleman as “using an active network interface unit”—not a passive filter. DISH1001, 2:59-60. Thus, Amit’s disclosure is substantially different.

The Examiner’s reason for allowing the ’249 patent further underscores the non-cumulative nature of Amit. For instance, the Examiner allowed the patent because none of the references cited by the Examiner, including Kliger, disclosed or rendered obvious the reflected filter limitation (element [1.a]). DISH1002, 5.² In

² While the ’249 patent specification mentions Humpleman, ADSL/VDSL and the DSL-Book in columns 2 and 8, there is no record or evidence that the Examiner considered these references, as indicated by their omission on the face of the ’249 patent. DISH1001, cover.

contrast, Petitioner establishes that Amit discloses [1.a], Pet., 10-14, a fact the POPR notably did not dispute. Thus, Amit is non-cumulative to Kliger and Humpleman.

B. Reexamination Does Not Substantively Overlap With This IPR

The now-terminated Reexamination No. 90/019,247 (“the EPRX”) included two obviousness grounds: Afshary and Mills, and Amit and Mills. While the EPRX and the Petition here share a common reference (Amit), neither EPRX obviousness ground will be at issue in this IPR. And the Petition challenges all 17 claims of the patent, including two other independent claims, not just claim 10. Thus, no substantial overlap of issues exists in the EPRX and IPR.

PO relies principally on the *Fox Factory* decision to assert that similarities between the EPRX and Petition warrant discretionary denial. But the facts in *Fox Factory* differ from those here, and more analogous IPR decisions support institution. In *Fox Factory*, the Board denied institution under 325(d) because the petition had only one obviousness ground, which was nearly identical to the ground the Examiner had been considering for almost a year in a reexamination of the same patent. *Fox Factory*, 8. The Board specified that instituting the IPR would have the Board consider “the same issues with the same references” already under consideration in the reexamination. *Fox Factory*, 8. The facts here align more with *Pfizer v. Hoffman-La Roche* where the Board distinguished *Fox Factory* and instituted IPR when one challenged claim was also the subject of reexamination

involving one of the three prior art grounds from the petition. IPR2018-01219, Paper 12 (P.T.A.B. Dec. 18, 2018). The present IPR includes different grounds, evidence, and challenged claims than the pending EPRX, just like in *Pfizer*. Thus, the facts here are distinguishable from *Fox Factory*. To date, the same or similar issues have not been raised in the EPRX, and with the EPRX now terminated, there is no chance of similar issues being raised in this IPR and EPRX. Notably, the now-withdrawn rejections in the EPRX focused on a limitation found only in claim 10 that has not been at issue in this IPR. *See also Arthrex v. Vite Tech.*, IPR2016-00382, Paper 7 (P.T.A.B. June 28, 2016) (instituting IPR where “there are substantial differences between the grounds asserted in the Petition and the rejections . . . in the ’580 Reexamination”).

II. *ADVANCED BIONICS* FACTORS WEIGH AGAINST DENIAL

As explained above, the same or substantially the same art (and therefore issues arising from the art) have never been presented to the Office before, thus, *Advanced Bionics*’ factor 1 weighs heavily against denial. Because neither prong of factor 1 is satisfied, *Advanced Bionics*’ factor 2 cannot be met. Yet, to the extent the Board considers factor 2, the Examiner’s failure to consider the obviousness of the Challenged Claims over the references asserted in the Petition constitutes material error. PO does not argue otherwise. POPR, 57 (stating “no doubt that the Petition’s references were not themselves part of any rejection”).

Respectfully submitted,

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EXHIBITS

DISH-1001	U.S. Patent 7,594,249 to Gurantz <i>et al.</i> (“the ’249 patent”)
DISH-1002	Excerpts from the Prosecution History of the ’249 Patent (“the Prosecution History”)
DISH-1003	Declaration of Dr. Scott Acton
DISH-1004	Curriculum Vitae of Dr. Scott Acton
DISH-1005	U.S. Patent 7,127,734 to Amit <i>et al.</i> (“Amit”)
DISH-1006	Excerpts from Dennis J. Rauchmayer, <i>ADSL/VDSL Principles</i> , 1999 (“ADSL/VDSL”)
DISH-1007	Jacobsen <i>et al.</i> , <i>An Efficient Digital Modulation Scheme for Multimedia Transmission on the Cable Television Network</i> , 43rd Annual National Cable Television Association Convention and Exposition, New Orleans, LA. 1994 (“Jacobsen”)
DISH-1008	Excerpts from Walter Y. Chen, <i>DSL: Simulation Techniques and Standards Development for Digital Subscriber Lines</i> , 1998 (“DSL Simulation Techniques”)
DISH-1009	Proof of Service of Summons and Complaint on DISH Network Corporation in <i>Entropic Communications, LLC v. DISH Network Corporation et al.</i> , Case 2:23-cv-01043, ECF No. 14 (C.D. Cal. Feb. 23, 2023)

- DISH-1010 Weinberg, G. (1972). *Cost Analysis of CATV Components. Final Report.* (“Weinberg”)
- DISH-1011 Dodds, D. E., & Swanson, L. (1999, August). *Simultaneous voice and Internet data on rural subscriber lines.* In 1999 IEEE Pacific Rim Conference on Communications, Computers and Signal Processing (PACRIM 1999). Conference Proceedings (Cat. No. 99CH36368) (pp. 18-21). IEEE. (“Dodds”)
- DISH-1012 Maxemchuk, N., & Netravali, A. (1985). *Voice and Data on a CATV Network.* IEEE Journal on Selected Areas in Communications, 3(2), 300-311 (“Maxemchuk”)
- DISH-1013 Jacobsen, K. S. (1997, November). *Synchronized Discrete Multi-Tone (SDMT) Modulation for Cable Modems: Making the Most of the Scarce Reverse Channel Bandwidth.* In WESCON/97 Conference Proceedings (pp. 374-380). IEEE. (“Jacobsen-2”)
- DISH-1014 Fryxell, D., Lanning, S., & Sirbu, M. (1999). *Broadband Access Networks and the Emergence of Voice over IP (VoIP): an Economic Analysis for Cable and ADSL.* In 27th Annual Telecommunications Policy Research Conference, Alexandria, VA (“Fryxell”)

- DISH-1015 Lipoff, S. J. (1994). *Personal communications networks bridging the gap between cellular and cordless phones*. Proceedings of the IEEE, 82(4), 564-571 (“Lipoff”)
- DISH-1016 S. Ovadia, *Advanced upstream CATV access technologies and standards*, 1999 Digest of the LEOS Summer Topical Meetings: Nanostructures and Quantum Dots/WDM Components/VCSELs and Microcavities/RF Photonics for CATV and HFC Systems (Cat. No.99TH8455), San Diego, CA, USA, 1999, pp. IV35-IV36 (“Ovadia”)
- DISH-1017 Roden, M. S. (1985). *Analog and digital communication systems*. Prentice-Hall, Inc. (“Roden”)
- DISH-1018 Jorasch, R., & Price, K. (1988, March). *Advanced satellite system architecture for VSATs with ISDN compatibility*. In 12th International Communication Satellite Systems Conference (“Jorasch”)
- DISH-1019 Smalley, D. (1994). *Equalization concepts: a tutorial*. Atlanta Regional Technology Center, Texas Instruments (“Smalley”)
- DISH-1020 Santella, G., & Mazzenga, F. (1998). *A hybrid Analyticalsimulation procedure for performance evaluation in M-QAMOFDM schemes in presence of nonlinear distortions*.

IEEE Transactions on Vehicular Technology, 47(1).

(“Santella”)

- DISH-1021 Corvaja, R., Costa, E., & Pupolin, S. (1998, October). *Analysis of M-QAM-OFDM transmission system performance in the presence of phase noise and nonlinear amplifiers*. In 1998 28th European Microwave Conference (Vol. 1, pp. 481-486). IEEE.
- DISH-1022 Declaration of June Munford
- DISH-1023 Excerpts from the Prosecution History of U.S. Patent 7,127,734 to Amit (“the Amit Prosecution History”)
- DISH-1024 Federal Court Management Statistics for September 2023 published by the Administrative Office of the U.S. Courts, retrieved from https://www.uscourts.gov/sites/default/files/data_tables/fcms_na_distcomparison0930.2023.pdf
- DISH-1025 Order Granting Stipulation Setting Claim Construction Schedule, *Entropic Communications, LLC v. DISH Network Corporation et al.*, Case 2:23-cv-01043-JWH-KES (CDCA)
- DISH-1026 LegalMetric Time to Trial Report, Central District of California, Patent Cases (Jan. 2023 – Nov. 2023)

CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4) and 42.205(b), the undersigned certifies that on May 31, 2024, a complete and entire copy of this Petitioner's Reply to Patent Owner's Preliminary Response were provided by email to the Patent Owner by serving the correspondence address of record as follows:

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