

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC., DISH NETWORK, LLC,
COMCAST CABLE COMMUNICATIONS, LLC,
COX COMMUNICATIONS, INC.,
TIME WARNER CABLE ENTERPRISES LLC,
VERIZON SERVICES CORP., and ARRIS GROUP, INC.,
Petitioner

v.

TQ DELTA, LLC,
Patent Owner

Case IPR2016-01008¹
Patent 8,238,412 B2

**PETITIONER'S RESPONSE TO PATENT OWNER'S MOTION FOR
OBSERVATION ON CROSS-EXAMINATION TESTIMONY**

¹ DISH Network, LLC, who filed a Petition in IPR2017-00253, and Comcast Cable Communications, LLC, Cox Communications, Inc., Time Warner Cable Enterprises LLC, Verizon Services Corp., and ARRIS Group, Inc., who filed a Petition in IPR2017-00419, have been joined in this proceeding.

This response is submitted in view of the Scheduling Order (Paper 9); the Notice of Parties' Stipulation Regarding Scheduling Order, submitted June 28, 2017 (Paper 23); and the Trial Practice Guide, 77 Fed. Reg. 48756, 48767–68 (Aug. 14, 2012). This paper responds to Patent Owner's Corrected Motion for Observation on Cross-examination (Paper 33) filed on July 5, 2017, in the present *inter partes* review. Patent Owner presented fourteen (14) observations on the June 26, 2017, deposition testimony of Dr. Kiaei (Ex. 2011). Although Petitioner responds to each of Patent Owner's observations below, the Board should deny Patent Owner's motion because the observations contain at least one of the following deficiencies: (1) they fail to identify the relevant issue; (2) they are not relevant to any issue; (3) they include attorney argument, and; (4) they mischaracterize Dr. Kiaei's testimony.

Response to Observation 1:

Patent Owner's observation omits relevant testimony pertaining to the term "subchannel" in the '956 patent (which shares a common specification with the '412 patent at issue). Specifically, Dr. Kiaei testified that based on the '956 patent's disclosure at "Column 1, lines 47 to 49" (which corresponds to the '412 patent at 1:44-45), "only subchannels that are discrete, nonoverlapping, and have limited bandwidth are carriers." Ex. 2011, 173:24-174:17. This testimony is consistent with Dr. Kiaei's declaration testimony that in the context of the '412

patent, “a ‘*subchannel*’ would be understood to be ‘a portion of a frequency spectrum used for communication.’” Ex. 1100, ¶11. Furthermore, as to the relevance of this testimony to Milbrandt, Dr. Kiaei explained that Milbrandt’s “sub-frequency” teaches the claimed “*subchannel*,” “even under TQ Delta’s narrow construction.” Ex. 1100, ¶¶15-24.

Response to Observation 2:

Patent Owner’s observation includes attorney argument, which mischaracterizes that Dr. Kiaei “testified that subbands and carriers are not the same” and that “Dr. Kiaei contradicts himself.” To the contrary, nowhere does Dr. Kiaei “testif[y] that subbands and carriers are not the same.” Dr. Kiaei merely quoted Exhibit 1101 at 69, which states that “there are 256 subbands” and no distinction was made between ADSL carriers and subbands. Ex. 2011, 21:6-11. (“Q. So you said here, and I quote, ‘We’re not talking about carriers right now. We’re talking about 256 subbands.’ So you make a distinction between carriers and subbands? A. No, that’s not -- specifically, I was just reading what they [Exhibit 1101 at 69] said.”)

Response to Observation 3:

Patent Owner’s observation omits relevant testimony pertaining to the term “subchannel.” Specifically, Dr. Kiaei testified that based on the ‘956 patent’s disclosure at “Column 1, lines 47 to 49,” subchannels are not always carriers and

that “only subchannels that are discrete, nonoverlapping, and have limited bandwidth are carriers.” Ex. 2011, 173:24-174:17. Dr. Kiaei's deposition testimony is consistent with his declaration testimony since in the context of the '412 patent, “a ‘*subchannel*’ would be understood to be ‘a portion of a frequency spectrum used for communication.’” Ex. 1100, ¶11. Furthermore, as to the relevance of this testimony to Milbrandt, Dr. Kiaei explained that Milbrandt's “sub-frequency” teaches the claimed “*subchannel*,” “even under TQ Delta's narrow construction.” Ex. 1100, ¶¶15-24.

Response to Observation 4:

Patent Owner's observation mischaracterizes the cited testimony. Specifically, and contrary to Patent Owner's observation, the question was not “if a subchannel is associated with a frequency” but rather “is that the frequency associated with that subchannel?” Ex. 2011, 84:16-17. Regardless, Dr. Kiaei's cited deposition testimony is consistent with his declaration in Ex. 1009, ¶67 and ¶69; Ex. 1100, ¶6. Moreover, Patent Owner's experts, Dr. Chrissan and Dr. Short, similarly testified that, in the ADSL context, the terms at issue were used interchangeably. Ex. 1103, ¶36; Ex. 1110, 53:20-54:1.

Response to Observation 5:

Patent Owner's observation is consistent and actually reaffirms Dr. Kiaei's declaration testimony, as evidenced by testimony omitted by Patent Owner. Ex.

2011, 33:12-22 (“A. ... Elahi actually reaffirms other terminologies that uses as well for the same thing. As you read on page 108, it says that ‘ADSL uses discrete multitone encoding methods which use QAM to divide the bandwidth of the channel into multiple subchannels and each channel which is now the subchannel.’ So it's interchanging channel and subchannels transmitting information using QAM modulation.”) Regardless, the testimony cited by Patent Owner is not relevant since Dr. Kiaei's combination relies on Milbrandt—not Elahi.

Response to Observation 6:

Patent Owner's cited deposition testimony pertains to a specific example in the ANSI T1.413 (related to the maximum value of PSD) that is not relevant to Dr. Kiaei's declaration, which relied on other portions of the ANSI T1.413 standard. Further, Patent Owner mischaracterizes the cited testimony in presenting attorney argument that allegedly Dr. Kiaei testified that the communicated PSD “could be a single value for the entire upstream or downstream channel”—in fact, he testified that it is for a “portion” of the upstream or downstream. Ex. 2011, 106:7-8.

Moreover, Patent Owner omits clear testimony that PSD is not a single value for the entire upstream or downstream channel. Ex. 2011, 113:21-114:4 (“Q. Do you agree that that 3-bit value is for the entire upstream or downstream channel? ...

THE WITNESS: All it's saying here is talking about C-REVERB1 reporting the bits representing the power spectral density of that. It doesn't talk about the entire

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