IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TQ DELTA, LLC, Plaintiff, v. COMCAST CABLE COMMUNICATIONS, LLC Defendant.	Civil Action No. 1:15-cv-00611-RGA
TQ DELTA, LLC, Plaintiff, v. COXCOM LLC and COX COMMUNICATIONS INC., Defendants.	Civil Action No. 1:15-cv-00612-RGA
TQ DELTA, LLC, Plaintiff, v. DIRECTV, LLC, Defendant.	Civil Action No. 1:15-cv-00613-RGA

TQ DELTA, LLC, Plaintiff, v. DISH NETWORK CORPORATION, DISH NETWORK LLC, DISH DBS CORPORATION, ECHOSTAR CORPORATION, and ECHOSTAR TECHNOLOGIES, LLC Defendants.	Civil Action No. 1:15-cv-00614-RGA
TQ DELTA, LLC, Plaintiff, v. TIME WARNER CABLE INC. and TIME WARNER CABLE ENTERPRISES LLC, Defendants.	Civil Action No. 1:15-cv-00615-RGA
TQ DELTA, LLC, Plaintiff, v. VERIZON SERVICES CORP., Defendant.	Civil Action No. 1:15-cv-00616-RGA

MEMORANDUM OPINION

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November 30, 2016

ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the issue of claim construction of multiple terms in U.S. Patent Nos. 8,718,158 ("the '158 patent"), 9,014,243 ("the '243 patent"), 8,611,404 ("the '404 patent"), 9,094,268 ("the '268 patent"), 7,835,430 ("the '430 patent"), and 8,238,412 ("the '412 patent"). The Court has considered the Parties' Joint Claim Construction Brief. (Civ. Act. No. 15-611-RGA, D.I. 144; Civ. Act. No. 15-612-RGA, D.I. 141; Civ. Act. No. 15-613-RGA, D.I. 141; Civ. Act. No. 15-614-RGA, D.I. 135; Civ. Act. No. 15-615-RGA, D.I. 141; Civ. Act. No. 15-616-RGA; D.I. 146).[1] The Court heard oral argument on October 18, 2016. (D.I. 158).

I. BACKGROUND

Plaintiff filed these actions on July 17, 2015, alleging infringement of eight patents. (D.I. 1). On July 14, 2016, Plaintiff dismissed two of these patents with prejudice. (D.I. 102). The parties divide the remaining contested patents into three groupings: the phase scrambling patents, the low power mode patents, and the diagnostic mode patents. The phase scrambling patents, which include the '158 and '243 patents, claim methods for reducing the peak to average power ratio of a multicarrier transmission system. The low power mode patents, which include the '404 and '268 patents, claim methods for causing a multicarrier communications system to enter a low power mode while storing state information for full power mode to enable a rapid start up without the need for reinitialization. The diagnostic mode patents, which include the '430 and '412 patents, claim both an apparatus and method for the reliable exchange of diagnostic and test information over a multicarrier communications system.

[1] Unless otherwise specifically noted, all references to the docket refer to Civil Action No. 15-611-RGA.

II. LEGAL STANDARD

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). "'[T]here is no magic formula or catechism for conducting claim construction.' Instead, the court is free to attach the appropriate weight to appropriate sources 'in light of the statutes and policies that inform patent law.'" *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996). Of these sources, "the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term." *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

"[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1312–13 (citations and internal quotation marks omitted). "[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent." *Id.* at 1321 (internal quotation marks omitted). "In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314.

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