



**I. Plaintiffs’ Objections to the Claim-Construction Order**

- a. “*first communication means for transmitting short bursty data*” and “*second communication means for continuous transmission of data*” (’073 Patent, Cl. 2-7, 28)

The parties agree that “first communication means for transmitting short bursty data,” and “second communication means for continuous transmission of data” are both means-plus-function terms governed by 35 U.S.C. § 112 ¶ 6. The parties further agree on the claimed functions for both terms, but they dispute the corresponding structures.

The Magistrate Judge found that the corresponding structure was the random-access transmitter in its entirety as depicted in Figure 5. The Claim-Construction Order also specifically rejected Defendants’ proposal to include a specific technique as part of the corresponding structure. The Court, therefore, construed the terms as follows:

<b>Term</b>	<b>Construction</b>
<b>First communications means for transmitting short bursty data</b>	<i>Function:</i> transmitting short bursty data <i>Structure:</i> random access transmitter 70 in figure 5 and equivalents thereof
<b>Second communications means for continuous transmission of data</b>	<i>Function:</i> continuous transmission of data <i>Structure:</i> channel assignment transmitter 110 in Figure 6 and equivalents thereof

Plaintiffs object to the Magistrate Judge’s identification of the structures. Particularly, Plaintiffs argue that the construction of both the first communications means for transmitting short bursty data and the second communications means for continuous transmission of data should be limited to the extent the structures include each Figure 5 and 6, respectively, in their entireties. Docket No. 212 at 2. According to Plaintiffs, the structures are well known in the art, and not all components depicted in each figure are necessary to perform the claimed functions of transmitting short bursty data or continuous transmission of data. *Id.* at 2–3.

As the Magistrate Judge noted in his opinion, Plaintiffs have failed to identify any evidence suggesting that the random access transmitter 70 as illustrated in Figure 5 can be dissected. Docket No. 208 at 13. The Court agrees with the Magistrate Judge that Plaintiffs have not provided any evidence that particular components of Figure 5 or 6 can be omitted.

The Court finds that the Magistrate Judge's construction of "first communications means for transmitting short bursty data" and "second communications means for continuous transmission of data" are not clearly erroneous or contrary to law. Therefore, Plaintiffs' objections are **OVERRULED**.

*b. "transmitter means within each user terminal for receiving data to be transmitted from said user terminal to said hub" ('073 Patent, Cl. 2-7)*

Plaintiffs object the construction of this term to the extent the Magistrate Judge construed "the corresponding structure [to] include[] a random access transmitter 70 and channel assignment transmitter 110." Docket No. 212 at 3. According to Plaintiffs, the "specification clearly links the recited function of 'receiving data to be transmitted from said user terminal to said hub' to the modem 160." *Id.* Plaintiffs argue that, while modem 160 includes the random-access transmitter 79 and channel assignment transmitter 119, those two sub-components are "unnecessary to perform the recited function of *receiving* data to be transmitted." *Id.* (emphasis original).

The Magistrate Judge's Claim-Construction Order rejected Plaintiffs' argument that the structure does not include random-access transmitter 80 and channel-assignment transmitter 110. Docket No. 208 at 19. The Magistrate Judge found that Plaintiffs' argument to be "seemingly internally inconsistent" and that it could not be squared with 35 U.S.C. § 112, ¶ 6: "[I]f the corresponding structure is modem 160, and if modem 160 includes random access transmitter 70 and channel assignment transmitter 110, then it necessarily follows that the corresponding structure includes random access transmitter 70 and channel assignment transmitter 110." *Id.*

This Court finds that the Magistrate Judge’s construction of “transmitter means within each user terminal for receiving data to be transmitted from said user terminal to said hub” is not clearly erroneous or contrary to law. Indeed, because the corresponding structure was modem 160, and modem 160 includes a random-access transmitter 70 and channel-assignment transmitter 110, it necessarily follows that the corresponding structure includes those two elements. Accordingly, Plaintiffs’ objections are **OVERRULED**.

**II. Defendants’ Objections to the Claim-Construction Order**

*a. Means for generating a request to be sent over said return communications link in order to utilize said second communications means ('073 Patent, Cl. 28)*

Defendants claim that the Claim-Construction Order “erred by failing to hold the ‘means for requesting’ term is indefinite for lacking sufficient disclosure of corresponding structure.” Docket No. 213 at 2. According to Defendants, the Order does not describe “*how* the request is generated but merely restate the function.” *Id.* (emphasis original).

The Magistrate Judge found that, while “Defendants ha[d] cited deposition testimony of Plaintiffs’ expert opining that the specification does not limit how a software programmer would implement the software that would generate the channel assignment request and that ‘there’s almost an infinite number of ways to write a piece of software code to do something,’ ” the term was not indefinite. Docket No. 208 at 34. The Magistrate Judge explained that “the amount of detail that must be included in the specification depends on the subject matter that is described and its role in the invention as a whole, in view of the existing knowledge in the field of the invention.” *Id.* (citing *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1385 (Fed. Cir. 2011)).

The Court agrees with the Magistrate Judge’s finding that the means for requesting term is not indefinite because it provides sufficient structure for a person of skill in the art. Therefore, Defendants’ objection to the Order’s construction of “means for generating a request to be sent

over said return communications link in order to utilize said second communications means” is

**OVERRULED.**

- b. *“switching means [coupled to said transmitter means / within said plurality of user terminals] for switching transmission between said first communication means and said second communication means in accordance with predefined criteria”* ('073 Patent, Claims 2-7, 28)

The Magistrate Judge’s Order construed the corresponding structure of “switching means” to be “modem 160 or PC 150 including driver layer 158,” but Defendants argue that construction is incorrect because the patent “makes clear that driver layer 158 is depicted and described in the ’073 Patent as software running on PC 150 and interacting with modem 160.” Docket No. 213 at 3. Defendant claims that the Court’s construction is contrary to law because it adopts a structure that is undisclosed or not supported in the specification. *Id.* Additionally, Defendants contend that the proper construction of the algorithm steps is limited to Figure 8, and “[t]he plain language of the claims supports finding that all of Figure 8 is necessary for the algorithm steps to perform the claimed function.” *Id.*

The Magistrate Judge found that the specification contained alternative disclosures that the driver layer 158 may be implemented in either PC 150 or modem 160. Docket No. 208 at 35. Figure 7 of the ’073 Patent illustrates “Driver 158” as part of “PC 150,” which is illustrated as distinct from modem 160. But the description of Figure 8 in the ’073 patent refers to steps being performed by “modem 160.” The Court agrees with the Magistrate Judge that, although the specification explains that “the transmitter method of the present invention” is “PC based,” the general disclosure does not override the above-cited more specific explanation that switching functions can be performed by modem 160. *See* ’073 Patent at 17:20, 17:55-56, 17:66-67, 18:2-4 & 18:8-15.

Additionally, the Court also agrees with the Magistrate Judge that all of Figure 8 is not necessary for the algorithm steps to perform the claimed function: the specification discloses that Figure 8 is merely a “high level flow diagram illustrating the driver method of the present invention.” ’073 Patent, 17:52–53.

The Court finds no plain error in the Magistrate Judge’s construction, and Defendants’ objection to the construction of the corresponding structure of “switching means” is **OVERRULED**.

- c. *“non-data carrying time slot remover for removing said non-data carrying time slots during conversion into said asynchronous protocol” / “time slot regenerator for regenerating non-data carrying time slots during reconstruction of said datastream”* (’874 Patent)

Defendants argue that the Order misconstrued the “remover” and “regenerator” terms. Defendants argue that the Order “provided no substantive analysis to support the decision not to apply § 112, ¶ 6.” Docket No. 213 at 4. Defendants argue that the Magistrate Judge instead relied on “substantially the same reasons discussed above as to the ‘converters’ terms,” but, “for the ‘converter’ terms, there was evidence in the record that a ‘converter’ was a known structure, [and t]he opposite is true for the “remover” and “regenerator” terms.” *Id.* (citations omitted).

Failure to use the word “means” creates a rebuttable presumption that § 112 ¶ 6 does not apply. *Williamson v. Citrix Online LLC*, 792 F.3d 1339, 1348 (Fed. Cir. 2015). The presumption can be overcome if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function. *Id.* at 1349. As the Magistrate Judge explained with respect to the “converter” term, the disputed terms “remover” and “regenerator” are not “nonce” words like means, module, or mechanism and, instead, connote structure to a person skilled in the art. Accordingly, Defendants’ objection is **OVERRULED**.

*d. “converters,” “E1-TCP/IP converters,” “extractor,” “TCP/IP packet former,” “multiplexer,” and “decoders”*

Defendants further argue that the Order erred in construing “converters,” “E1-TCP/IP converters,” “extractor,” “TCP/IP packet former,” “multiplexer,” and “decoders” as having their plain meaning instead of applying § 112 ¶ 6. Docket No. 213 at 5. Defendants argue that they overcame the presumption against applying § 112 ¶ 6 by “demonstrating that the terms are merely ‘black boxes’ and descriptions of the functions to be performed that would not be understood by a person of ordinary skill in the art as having a sufficiently definite meaning as the name for structure.” *Id.*

The Magistrate Judge found that each of these terms connoted structure to a person of skill in the art, and Defendants did not overcome the presumption that § 112 ¶ 6 did not apply. The term converters connotes structure, and, here, the relatively simple converting functions do not demand any greater detail than is recited. Docket No. 208 at 43.

Similarly, the Magistrate Judge found that Defendants failed to rebut the presumption against means-plus-function treatment as to the “multiplexer” and “decoder” terms, especially given that Plaintiffs submitted an extrinsic technical dictionary that defines “multiplexer” as meaning “a device that allows the interleaving of two or more signals to a single line or terminal.” *Id.* at 51.

Likewise, Defendants failed to rebut the presumption against means-plus-function treatment as to the “extractor” and “TCP/IP packet former” terms, especially considering the modifier “TCP/IP” provides additional structural significance to the “packet former” term. *Id.* at 49.

The Court finds no plain error in the Magistrate Judge's constructions, and Defendants' objections to the Magistrate Judge's construction of converters, E1-TCP/IP converters, extractor, TCP/IP packet former, multiplexer and decoders are **OVERRULED**.

*e. "[wherein said synchronous protocol allows] non-data carrying time slots" ('874 Patent)*

Defendants further argue that the Order's construction of "[wherein said synchronous protocol allows] non-data carrying time slots" as "time slots that do not contain data" is contrary to law. Docket No. 213 at 6. According to Defendants, the specification and prosecution history are ambiguous regarding the limits of what can constitute a non-data carrying time slot, and, therefore, claim 1 "on its face does not provide guidance as to a definition for a non-data carrying time slot nor does claim 1 define the particular communication protocols being used." *Id.* Defendants contend that "there is no way for a person skilled in the art to determine the scope of "non-data carrying time slot" with reasonable certainty based on the intrinsic record," and the Order incorrectly did not find the term indefinite. *Id.*

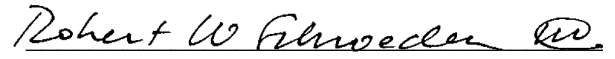
The Magistrate Judge expressly rejected Defendants' indefiniteness arguments in construing this term. Docket No. 208 at 37. In doing so, the Magistrate Judge explained that the specification demonstrates that " 'non-data' in the '874 patent refers to time slots that contain information that may be useful or necessary in one communication protocol but that is not needed in another communication protocol." *Id.* Indeed, as the Magistrate Judge correctly notes, the identification of particular time slots as not containing "data" is implementation-specific and will depend on the particular communication protocols being used. *Id.*

The Court finds no plain error in the Magistrate Judge's construction. Accordingly, Defendants' objection to the Magistrate Judge's construction of "[wherein said synchronous protocol allows] non-data carrying time slots" is **OVERRULED**.

**III. Conclusion**

As detailed above, the Court has found no plain error in the objected-to portions of the Magistrate Judge's Claim-Construction Order.

**SIGNED this 25th day of May, 2017.**

  
ROBERT W. SCHROEDER III  
UNITED STATES DISTRICT JUDGE