

United States District Court,  
E.D. Virginia, Alexandria Division.

**REMBRANDT DATA TECHNOLOGIES, LP,**  
Plaintiff.

v.

**AOL, LLC et. al,**  
Defendant.

No. 1:08cv1009 (GBL)

**June 17, 2009.**

Virginia Whitner Hoptman, Womble Carlyle Sandridge & Rice PLLC, Tysons Corner, VA, Elizabeth Warner Whip Grau, Womble Carlyle Sandridge & Rice PLLC, Washington, DC, for Plaintiff.

Charles Richard Bruton, Buchanan Ingersoll & Rooney PC, Craig Crandall Reilly, Law Office of Craig C. Reilly, Alexandria, VA, Robert Dan Spendlove, David Michael Young, Goodwin Procter LLP, Jonathan Dyste Link, Townsend and Townsend and Crew LLP, Michael Harry Jacobs, Crowell & Moring LLP, Washington, DC, for Defendants.

## ***ORDER***

**GERALD BRUCE LEE, District Judge.**

THIS MATTER is before the Court for a *Markman hearing and claim construction*.

### **I. BACKGROUND**

Plaintiff Rembrandt Data Technologies, LP, has accused Defendants Canon U.S.A., Canon Business Solutions, Inc., Canon Information Technology Services, Inc., Hewlett-Packard Company, and DIRECTV, Inc of infringing U.S. Patent No. 5,311,578 (the '578 patent) and No. 5,251,236 (the '236 patent). The patents-in-suit concern modem technology, and Rembrandt alleges that they relate to the V.34 standard for modems, and has accused the defendants of infringement based on their sale of products that contain modems that operate using the V.34 standard. The parties have conferred and submitted to the Court a joint submission of agreed upon and disputed claim construction terms. Each side has had an opportunity to present opening and responsive briefs as well as oral argument in support of its position. The issue presented is how to properly construe the disputed claims in the '578 and '236 patents.

### **II. ANALYSIS**

Claim construction is a question of law for the Court to decide. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996) FN1. Generally, claim terms are given their "ordinary and customary meaning." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed.Cir.2005)(internal

quotation marks omitted). "[T]he ordinary and customary meaning of a claim term 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 1333. "It is well-settled that, in interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history." *Vitronics Corp. v. Conceptronics, Inc.*, 90 F.3d 1576, 1582 (Fed.Cir.1996). The specification has been characterized as the "single best guide to the meaning of a disputed term" and is usually "dispositive." *Phillips*, 415 F.3d at 1315. "Although words in a claim are generally given their ordinary and customary meaning, a patentee may choose to be his own lexicographer and use terms in a manner other than their ordinary meaning, as long as the special definition of the term is clearly stated in the patent specification of file history." *Vitronics*, 90 F.3d at 1582 (citing *Hoechst Celanese Corp. v. BP Chems. Ltd.*, 78 P.3d 1575, 1578 (Fed.Cir.1996)). "The construction that stays true to the claim language and most naturally aligns with the patent's true description of the invention will be, in the end, the correct construction." *Phillips*, 415 F.3d at 1316. The Court may also look to extrinsic evidence, including "expert testimony, dictionaries, and learned treatises," to determine what a person of ordinary skill in the art would understand a claim term to mean, but not to the extent that it contradicts the intrinsic evidence. *Id.* at 1317-19. The Federal Circuit has held that "one of the cardinal sins of patent law [is] reading a limitation from the written description into the claims." *Id.* at 1320.

### III. CLAIM CONSTRUCTION

#### A. '578 Patent

Claim & Element	Language	Construction
Claim 1 Preamble	1. Apparatus for providing an identification signal from an answering modem to an originating modem comprising:	No construction necessary.
Claim 1 Element 1	means responsive to a ringing signal for generating an answer tone with a finite duration T, where T>0 seconds;	<i>Function:</i> generating an answer tone with a finite duration T, where T>0 seconds, in response to a ringing signal.
		<i>Structure:</i> The answering tone generator 150, which generates a standard ITU (or, as described in the patent, CCITT) V.25 answer tone having a frequency of 2100 Hz.
		No additional construction necessary.
Claim 1 Element 2	means for generating a predetermined identification signal, the predetermined identification signal having a duration less than the answer tone;	<i>Function:</i> generating a predetermined identification signal, the predetermined identification signal having a duration less than the answer tone.
		<i>Structure:</i> identification signal generator 140.
		No additional construction necessary.

Claim 3 Preamble	Apparatus in an answering modem for establishing a data connection to an originating modem during a call establishment procedure, the apparatus comprising:	No construction necessary.
Claim 3 Element 2	means responsive to the ringing signal to concurrently apply to the communications channel at least an answer tone and an identification signal for transmission to the originating modem, the answer tone being of finite duration, and the identification signal being of finite duration less than the answer tone where the identification signal represents a characterization of the answering modem.	<i>Function:</i> concurrently applying to the communications channel at least an answer tone of finite duration and an identification signal of finite duration less than the answer tone for transmission to the originating modem.
		<i>Structure:</i> adder 155, the same structure identified in Claim 1, Element 3.
		This element needs no further construction beyond the function and structure identified above.
Claim 5 Element 3	c. detecting in the answer signal an answer tone and a second signal, the second signal being of shorter duration than the answer tone; and	The term "the second signal being of shorter duration than the answer tone" should be construed as "the signal used to identify the remote modem is transmitted for a shorter duration than the answer tone."
Claim 7 Element 2 & 3	detecting in the standard signal a <i>hidden signal</i> , the hidden signal being representative of the identity of the remote modem; and	"Hidden signal" means a signal having an energy level below the minimum energy level of the standard signal.

sending a different *hidden signal* from the modem to the remote modem for signaling to the remote modem the identity of the modem.

## B. '236 Patent

Claim & Element	Language	Construction
Claim 1 Element 2	buffer mea[n]s for receiving a stream of binary data, said buffer means being provided for partitioning said stream into frames of unequal number of bits and separating the bits of each frame into a first group and a second group of bits;	<i>Function:</i> There are three functions performed by the "buffer means":(1) receiving a stream of binary data; (2) partitioning said stream into frames of unequal number of bits, and (3) separating the bits of each frame into a first group and a second group of bits.
		<i>Structure:</i> Buffer 12, shown in Figure 1.
Claim 1 Element 3	fractional rate encoding means for receiving said first group and performing a fractional encoding thereon to generate a group of fractionally encoded	<i>Function:</i> receiving said first group and performing a fractional encoding thereon to generate a group of fractionally encoded bits.

	bits;	
		<i>Structure:</i> The fractional rate converter 18 shown in Figure 1 or in Figure 3, including programming for both calculating an ideal number of points using the algorithm $2^{b/f}$ as disclosed in column 4:14-60 of the '236 patent and converting a number of bits to a different base using the base conversion algorithm as described in the '227 patent and incorporated by reference into the '236 patent.
Claim 1 Element 4	combining means for combining said group of fractionally encoded bits with said second group into frames of equal number of bits;	<i>Function:</i> combine the group of fractionally encoded bits with the second group into frames of equal number bits.
		<i>Structure:</i> Buffer 16. shown in Figure 1.
Claim 1 Element 5	trellis encoding means for trellis encoding said frames of equal number of bits; and	<i>Function:</i> trellis encoding the frames of equal numbers of bits outputted by the combining means.
		<i>Structure:</i> The trellis encoder 20 shown in Figure 1.
Claim 3 Element 1	first buffer means for partitioning said stream into frames of unequal number of bits and for separating the bits of each frame into a first group and a second group of bits;	<i>Function:</i> (1) partitioning said stream into frames of unequal number of bits, and (2) separating the bits of each frame into a first group and a second group of bits.
		<i>Structure:</i> The buffer 12, shown in Figure 1.
Claim 3 Element 2	fractional encoding means for receiving the first group of bits of each frame and performing fractional encoding to generate a group of fractionally encoded bits;	<i>Function:</i> receiving said first group and performing a fractional encoding thereon to generate a group of fractionally encoded bits.
		<i>Structure:</i> The fractional rate converter 18 shown in Figure 1 or in Figure 3, including programming for both calculating an ideal number of points using the algorithm $2^{b/f}$ as disclosed in column 4:14-60 of the '236 patent and converting a number of bits to a different base using the base conversion algorithm as described in the '227 patent and incorporated by reference into the '236 patent.
Claim 3 Element 3	second buffer means for combining said second group of bits with said group of	<i>Function:</i> to provide for combining the second group of bits with the group of fractionally encoded bits to form frames of equal number of

	fractionally encoded bits to form frames of equal number of bits;	bits;
		<i>Structure:</i> The buffer 16 shown in Figure 1.
Claim 3 Element 4	trellis encoding means for trellis encoding the frames from said second buffer means; and	<i>Function:</i> trellis encoding the frames of equal numbers of bits outputted by the combining means.
		<i>Structure:</i> The trellis encoder 20 shown in Figure 1.
Claim 3 Element 5	transmitting the trellis encoded frames.	This claim will not be rewritten.
Claim 6	6. The transmitter of claim 3 further including format selector means for selecting the number of bits in said first and second group.	<i>Function:</i> Selecting the number of bits in the first and second groups.
		<i>Structure:</i> The format selector 14 shown in Figure 1.
Claim 9	The transmitter of claim 8 wherein format selector means is further provided to select an ideal number of points defining the quadrature amplitude modulation constellation for said quadrature amplitude modulation encoder.	<i>Function:</i> Selecting an ideal number of points defining the quadrature amplitude modulation constellation for the amplitude modulation encoder.
		<i>Structure:</i> The format selector 14 shown in Figure 1, including performing at least the following steps: (1) calculating the coefficients $b$ and $f$ from the desired bit and baud rates; (2) calculating the ideal number of points $2^{b/f}$ ; (3) rounding off the ideal number of points to the nearest larger integer.
Claim 10	10. The transmitter of claim 9 wherein said format selector means is further adapted to increase said ideal number to an integer having a preselected factor.	<i>Function:</i> increasing the number of signal constellation points required by the QAM transmitter for data transmission to an integer having a preselected factor.
	<i>Structure:</i> The format selector 14 shown in Figure 1, including performing at least the following additional steps: (4) increasing this integer to the nearest integer divisible by four.	

Claim 11	11. The transmitter of claim 10 wherein said preselected factor is a power of 2.	<i>Function:</i> increasing the number of signal constellation points required by the QAM transmitter for data transmission to an integer having a preselected factor, where the preselected factor is a power of 2.
----------	--	--

*Structure:* The format selector 14 shown in Figure 1, including performing at least the following additional steps: (4) increasing this integer to the nearest integer divisible by four.

The Clerk is directed to forward a copy of this Order to counsel.

FN1. Prior to the hearing the parties submitted a Joint Submission of the Parties' Proposed Claim Construction Contentions as Exhibit A to Defendants Hewlett-Packard Co., DIRECTV, Inc., Canon Business Solutions, Inc., and Canon Information Technology Services' Opening Claim Construction Brief.

E.D.Va.,2009.  
Rembrandt Data Technologies, LP v. AOL, LLC

Produced by Sans Paper, LLC.