



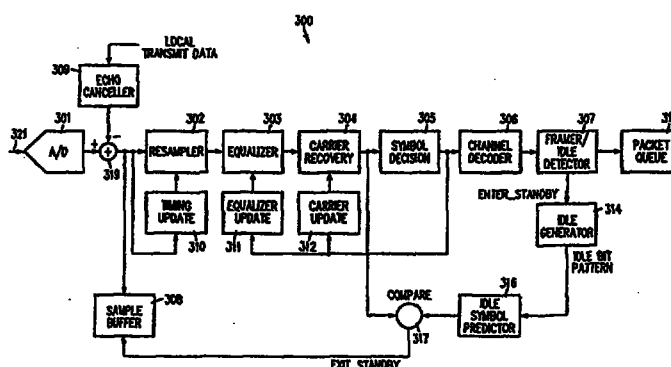
PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04M 11/06		A1	(11) International Publication Number: WO 98/51067
			(43) International Publication Date: 12 November 1998 (12.11.98)
(21) International Application Number: PCT/US98/09207		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 8 May 1998 (08.05.98)			
(30) Priority Data: 08/853,683 9 May 1997 (09.05.97) US			
(71) Applicant: EPIGRAM, INC. [US/US]; 870 Maude Avenue, Sunnyvale, CA 94086 (US).			
(72) Inventors: YAMANO, Larry, C.; 838 Gary Avenue, Sunnyvale, CA 94086 (US). HOLLOWAY, John, T.; 7 Oakhill Drive, Woodside, CA 94062 (US). FRANK, Edward, H.; 127 Brookside, Portola Valley, CA 94028 (US). MAL-LORY, Tracy, D.; 4026 Ben Lomond Drive, Palo Alto, CA 94306 (US). CORRY, Alan, G.; 900 Pepper Tree #1613, Santa Clara, CA 95051 (US). FORREST, Craig, S.; 1640 20th Street, San Francisco, CA 94107 (US). PETERSON, Kevin, H.; 2100 Lyon Street #2, San Francisco, CA 94115 (US). ROBINSON, Timothy, B.; 16 Blackstone Drive, Boulder Creek, CA 95006 (US). SNOW, Dane; 3794 Sullivan Drive, Santa Clara, CA 95051 (US).		Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(74) Agent: MACPHERSON, Alan, H.; Skjerven, Morrill, MacPherson, Franklin & Friel LLP, Suite 700, 25 Metro Drive, San Jose, CA 95110 (US).			

(54) Title: METHOD AND APPARATUS FOR REDUCING SIGNAL PROCESSING REQUIREMENTS FOR TRANSMITTING PACKET-BASED DATA WITH A MODEM



(57) Abstract

A modem and method for operating same. A receiver circuit of the modem is coupled to receive a continuous analog signal from a communication channel. This analog signal includes both packet and idle information. The receiver circuit monitors the analog signal to detect the presence of idle information. Upon detecting idle information, the receiver circuit enters a standby mode in which the processing requirements of the receiver circuit are reduced. A burst mode protocol is also provided, in which packets of digital information are modulated by a transmitter circuit of the modem, thereby converting the packets of digital information into analog signal bursts of discrete duration. These analog signal bursts are transmitted from the transmitter circuit to a telephone line. However, the transmitter circuit does not generate any signals between the analog signal bursts. A receiver circuit monitors the telephone line to detect the analog signal bursts. Upon detecting the presence of the analog signal bursts on the telephone line, the receiver circuit demodulates the analog signal bursts using full processing capabilities of the receiver circuit. However, upon detecting the absence of the analog signal bursts on the telephone line, the demodulating function of the receiver circuit is disabled. The burst mode protocol enables multi-drop and multi-cast operation, as well as reducing required DSP resources.