

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04L 5/06		(11) International Publication Number: WO 95/34149									
(21) International Application Number: PCT/US95/07035 (22) International Filing Date: 2 June 1995 (02.06.95) (30) Priority Data: <table border="0"><tr><td>08/252,829</td><td>2 June 1994 (02.06.94)</td><td>US</td></tr><tr><td>08/377,023</td><td>20 January 1995 (20.01.95)</td><td>US</td></tr><tr><td>08/396,132</td><td>28 February 1995 (28.02.95)</td><td>US</td></tr></table> CORPORATION (71) Applicant (for all designated States except US): AMATI COMMUNICATIONS, INC. [US/US]; Suite 303, 1975 El Camino Real West, Mountain View, CA 94040 (US). (72) Inventors; and (73) Inventors/Applicants (for US only): CIOFFI, John, M. [US/US]; 7879 Creeklane, Cupertino, CA 95014 (US). BINGHAM, John [US/US]; 2353 Webster Street, Palo Alto, CA 94301 (US). JACOBSEN, Krista, S. [US/US]; 1112 Boranda Avenue #7, Mountain View, CA 94040 (US). (74) Agents: HICKMAN, Paul, L. et al. ; Hickman & Beyer, P.O. Box 61059, Palo Alto, CA 94304 (US).		08/252,829	2 June 1994 (02.06.94)	US	08/377,023	20 January 1995 (20.01.95)	US	08/396,132	28 February 1995 (28.02.95)	US	(43) International Publication Date: 14 December 1995 (14.12.95)
		08/252,829	2 June 1994 (02.06.94)	US							
08/377,023	20 January 1995 (20.01.95)	US									
08/396,132	28 February 1995 (28.02.95)	US									
(81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HK, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA, US, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> See PCT Notice 9612018-3 and its RTmp + IPER + Annexes + PFLS of name											
(54) Title: METHOD AND APPARATUS FOR COORDINATING MULTI-POINT-TO-POINT COMMUNICATIONS IN A MULTI-TONE DATA TRANSMISSION SYSTEM											
(57) Abstract A variety of bi-directional data transmission systems that facilitate communications between a plurality of remote units (15) and a central unit (10) using a frame based discrete multi-carrier transmission scheme are disclosed. In each of the systems, frames transmitted from the plurality of remote units (15) are synchronized at the central unit (10). A variety of novel modem arrangements and methods for coordinating communications between a plurality of remote units and a central unit to facilitate multi-point-to-point transmission are disclosed. The invention has application in a wide variety of data transmission schemes including Asymmetric Digital Subscriber Line systems that includes the transmission of signals over twisted pair, fiber and/or hybrid telephone lines, cable systems that includes the transmission of signals over a coaxial cable, and digital cellular television systems that include the transmission of radio signals.											
This Sheet Has Been Replaced 											

8-8103136