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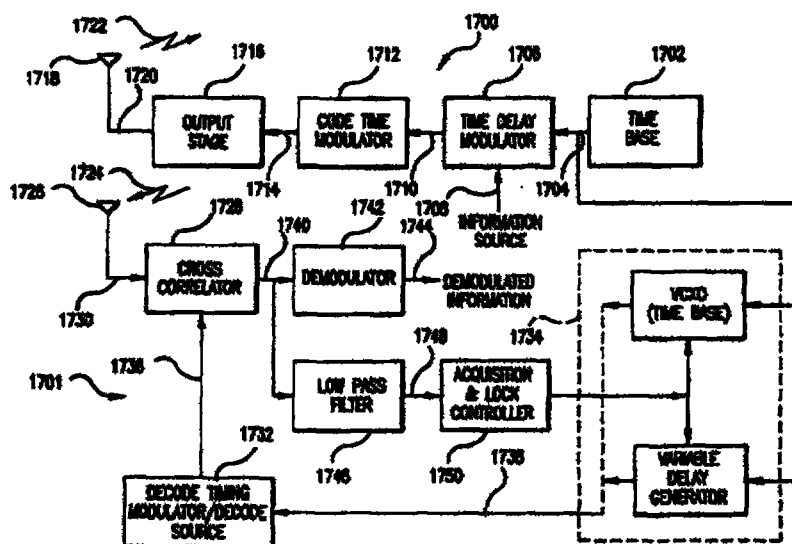
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(21) International Application Number: PCT/US96/06217 (22) International Filing Date: 26 April 1996 (26.04.96) (30) Priority Data: 08/428,489 27 April 1995 (27.04.95) US (71) Applicant: PULSON COMMUNICATIONS CORPORATION, INC. [US/US]; Suite 500, 8280 Greensboro Drive, McLean, VA 22102-3807 (US). (72) Inventor: FULLERTON, Larry, W.; 120 Wimbledon Road, Huntsville, AL 35741-9317 (US). (74) Agents: KESSLER, Edward, J. et al.; Sterne, Kessler, Goldstein & Fox P.L.L.C., Suite 600, 1100 New York Avenue, N.W., Washington, DC 20005-3934 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, 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). 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. <i>Pulson Communications Corporation</i> ↓ PCT/181306 Time Domain Systems Inc. ↓ PF23 Time Domain Corporation	

(54) Title: FULL DUPLEX ULTRAWIDE-BAND COMMUNICATION SYSTEM AND METHOD



(57) Abstract

An impulse radio transceiver for full duplex ultrawide-band communications. The transceiver comprises an impulse radio transmitter to transmit impulse radio signal pulses, an impulse radio receiver to receive impulse radio signal pulses, and means, associated with either or both of the impulse radio transmitter and the impulse radio receiver, for synchronizing the transmission and the reception of the impulse radio signal pulses for pulse interleaved communications. Pulse interleaving avoids self-interference between the transmitted impulse radio signal pulses and the received impulse radio signal pulses. In addition to pulse interleaved communications, bursts of pulses can be transmitted between two transceivers in an interleaved fashion. Alternatively, two different pulse repetition rates are to be used to transmit and receive impulse radio signal pulses simultaneously. A blanking means for blanking selected pulses of the received or transmitted impulse radio signal pulses can be used to avoid interference.