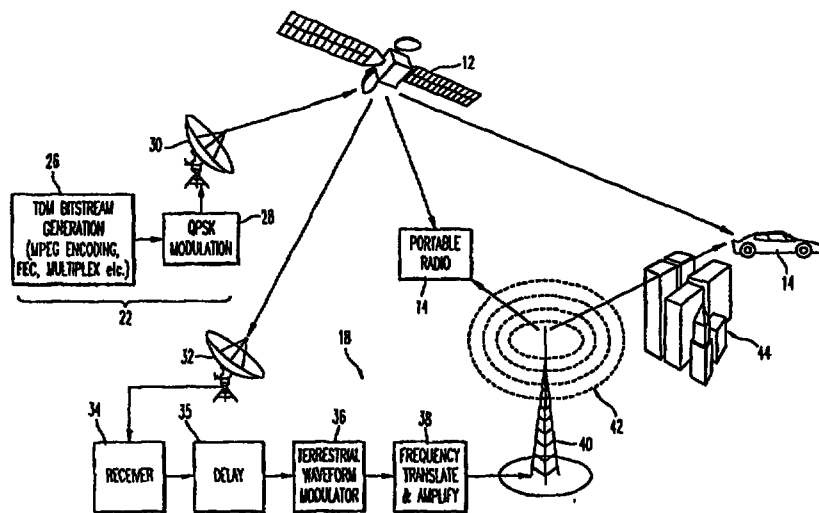


INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04H 1/00, H04B 7/155		A1	(11) International Publication Number: WO 99/49602
			(43) International Publication Date: 30 September 1999 (30.09.99)
(21) International Application Number: PCT/US98/14280		(74) Agents: HOLMES, John, E. et al.; Roylance, Abrams, Berdo & Goodman, LLP, 1225 Connecticut Avenue, N.W., Washington, DC 20036 (US).	
(22) International Filing Date: 10 July 1998 (10.07.98)			
(30) Priority Data: 60/079,591 27 March 1998 (27.03.98) US 09/058,663 10 April 1998 (10.04.98) US		(81) Designated States: AL, AM, AT, AT (Utility model), AU (Petty patent), AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), EE, EE (Utility model), ES, FI, FI (Utility model), GB, GE, GH, GM, HR, 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, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, 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, GW, ML, MR, NE, SN, TD, TG).	
(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 09/058,663 (CIP) Filed on 10 April 1998 (10.04.98)			
(71) Applicant (for all designated States except US): WORLDSPACE MANAGEMENT CORPORATION [US/US]; 2400 N Street, N.W., Washington, DC 20037 (US).			
(72) Inventor; and (75) Inventor/Applicant (for US only): CAMPANELLA, S., Joseph [US/US]; 18917 Whetstone Circle, Gaithersburg, MD 20879 (US).		Published With international search report.	

(54) Title: DIGITAL BROADCAST SYSTEM USING SATELLITE DIRECT BROADCAST AND TERRESTRIAL REPEATER



(57) Abstract

A digital broadcast system is provided which uses a satellite direct radio broadcast system having different downlink modulation options in combination with a terrestrial repeater network employing different re-broadcasting modulation options to achieve high availability reception by mobile radios (14), static radios and portable radios (14) in urban areas, suburban metropolitan areas, and rural areas, including geographically open areas and geographic areas characterized by high terrain elevations. Two-arm and three-arm receivers are provided which each comprise a combined architecture for receiving both satellite and terrestrial signals, and for maximum likelihood combining of received signals for diversity purposes. A terrestrial repeater is provided for reformatting a TDM satellite signal as a multicarrier modulated terrestrial signal. Configurations for indoor and outdoor terrestrial repeaters are also provided.