Title (en)

BIDIRECTIONNEL INFORMATION TRANSMISSION SYSTEM BETWEEN A MONITOR STATION ON THE GROUND AND A MOBILE STATION

Publication

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Application

EP 87117888 A 19871203

Priority

FR 8617137 A 19861208

Abstract (en)

[origin: US4910793A] Information is transmitted at microwave frequencies, the ground station being connected to a waveguide (25) and the station aboard a railway vehicle being connected to an antenna (26). Each station comprises a microwave generator (19) supplying a carrier, transmitters (3 through 7) supplying subcarriers, receivers (28 through 32) and a pilot generator (1). The carrier and subcarrier frequencies are multiples of the pilot frequency and the frequency difference between adjacent subcarriers equals the pilot frequency. A transmitter mixer (MTX) receives the carrier and the subcarriers and is connected to a circulator (24), itself linked to the waveguide (25) in the ground station and to the vehicle station antenna. A receiver mixer (MRX) is connected via a filter (23) to the circulator (24) and receives the carrier from the microwave generator; the latter mixer is connected to the receivers (28 through 32) to which it sends the subcarriers transmitted by the other station.

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