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(54) Title: **A SYSTEM AND METHOD FOR MITIGATING INTERMITTENT INTERRUPTIONS IN AN AUDIO RADIO BROADCAST SYSTEM**

(57) Abstract

A system (100) for mitigating intermittent interruptions in an audio radio broadcast system is provided wherein a primary radio signal and a redundant radio signal are transmitted from a transmitter subsystem (120) and received by a receiver subsystem (140). The output (112) of an audio source (110) is coupled to a modulator (160) for modulating a radio frequency signal (162) for coupling to a transmit antenna (172). A second output (114) of audio source (110) is coupled to a delay circuit (116), for adding a predetermined time delay thereto. The delayed audio source signal is coupled to a modulator (164) for modulating a second radio frequency signal (166) that is also coupled to the transmit antenna (172). The receiver subsystem (140) receives both the primary radio signal and the delayed redundant radio signal and couples each to a respective demodulator (180, 182). At least demodulator (180) includes a circuit

(181) for determining the degradation in the primary radio signal and provides a quality measurement output signal (186) to a blend control circuit (190). The recovered primary audio signal from demodulator (180) is coupled to a second delay circuit (184), the time delay of second delay circuit (184) being substantially equal to the time delay of delay circuit (116). The audio output from delay circuit (184) and the redundant audio output from demodulator (182) are coupled to a blending subsystem (135), wherein each is combined with a weighting factor and then combined together to form a composite audio signal for coupling to the audio output circuit (150).

