

Title (en)

AM COMPATIBLE DIGITAL WAVEFORM DEMODULATION USING A DUAL FFT

Title (de)

AM-KOMPATIBLE DEMODULATION EINER DIGITALEN WELLENFORM UNTER VERWENDUNG EINER DOPPELTEN FFT

Title (fr)

DEMODULATION D'UNE FORME D'ONDE NUMERIQUE COMPATIBLE MODULEE EN AMPLITUDE, EN UTILISANT DEUX PROCESSEURS FFT

Publication

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Application

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Abstract (en)

[origin: WO9708877A1] The invention provides a method and apparatus for demodulating a composite AM DAB waveform which contains digitally modulated carriers and which employ a mixer (180) for converting a received signal (170) into two signals, the first of these signals represents an in-phase component and the second of the signals represents a quadrature component, two analog-to-digital converters (182, 184) for converting the two signals into digital signals, and two fast Fourier transform elements (188, 190) for extracting data separately from the two digital signals. Complementary digital carrier signals are recovered from the quadrature, and non-complementary digital carriers are derived from a sum of the complementary data and the output of the in-phase component FFT process. Leakage of the AM signal through a highpass filter (186) is prevented from interfering with the demodulation of the complementary carrier signal's use of separated demodulation channels.

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