

Abstract**APPARATUS AND METHOD FOR DEMODULATING A MODULATED SIGNAL**

An apparatus for demodulating a modulated signal comprises an analog to digital converter for converting an analog modulated input signal to a digital signal. The analog to digital converter is arranged to sample the input signal at a predetermined sampling rate. A digital down converter then receives the digital signal at the sampling rate. The digital down converter has an associated digital intermediate frequency and reduces the frequency of the digital signal from the predetermined sampling rate to the digital intermediate frequency which is one quarter of the sampling rate. A low pass filter filters selected frequencies from the digital signal. A frequency offset stage applies a modification to the frequency of the filtered signal to reduce frequency offset therein, and a differential demodulator demodulates the signal after modifying the frequency to reduce the frequency offset. There is also disclosed a method for demodulating a signal.

[Fig. 2]



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