

# Blind Demodulation Algorithm for Short Burst FM-MFSK Based on STFT

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## Abstract

With the increasing innovation of network communication technology, short burst communication has been developed to a certain extent in the time compression technology, which brings great challenges to the radio signal blind reception technology. In the blind reception of non-cooperative signals in short-time burst communication, signal time domain detection is the premise and key of signal modulation parameter estimation, signal demodulation, decoding, interpretation, information acquisition and interference guidance. In this paper, the blind demodulation method of short-time burst FM-MFSK signal is studied under the condition of low signal-to-noise ratio. A short-time burst FM-MFSK blind demodulation method based on STFT is proposed. When SNR is higher than 2dB, the correct demodulation probability for FM-MFSK signal can reach 90%.

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