

Transmission Signal Quality Comparison of SCM and OFDM according to the Phase Noise Characteristics of the Local Oscillator

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Abstract— This paper examines the transmission signal quality differences between SCM(Single Carrier Modulation) method and OFDM(Orthogonal Frequency Division Multiplexing) method by analyzing how the phase noise characteristics of the local oscillator influences the signal quality and by comparing the test results of EVM(Error Vector Magnitude) and ACP(Adjacent Channel Power) using vector signal generator , vector signal analyzer and simulation tool.

Keyword— SCM, Carrier modulation, Phase Noise, OFDM, Local Oscillator



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