Abstract

An OFDM signal consists of a number of independently modulated SCs, which can give a large peak-to-average power (PAP) ratio when added up coherently. The peak power is defined as the power of a sine wave with amplitude equal to the maximum envelope value. Hence, an unmodulated carrier has a PAP ratio of 0 dB. An alternative measure of the envelope variation of a signal is the Crest factor, which is defined as the maximum signal value divided by the RMS signal value. For an unmodulated carrier, the Crest factor is 3 dB. This 3-dB difference
between the PAP ratio and Crest factor also holds for other signals, provided that the center frequency is large in comparison with the signal bandwidth.

References

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Index Terms

Computer Science

Signal Processing
Keywords
Subcarriers (scs)  Peak-to-average Power (pap)  Orthogonal Frequency Division Multiplexing (ofdm)  Forward Error Correction (fec)
Quadrature Phase Shift Keying (qpsk)
Cumulative Distribution Function (cdf)
Signal-to-noise Ratio (snr)
Coded Ofdm (cofdm)
Parallel-to-serial (p/s).