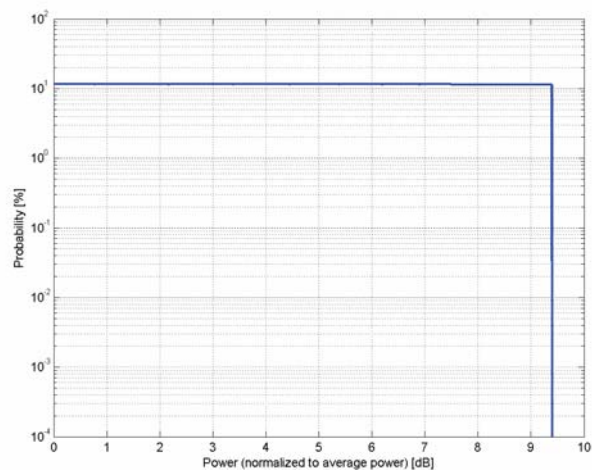


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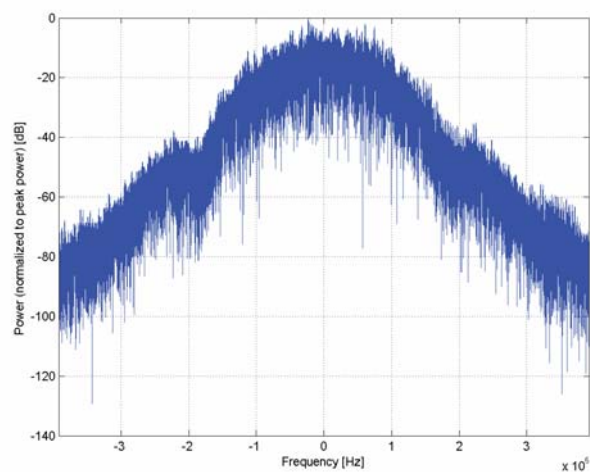
Name:	GSM-FDD (TDMA, GMSK)
Group:	GSM
UID:	10021-DAC
PAR: ¹	9.39 dB
MIF: ²	3.63 dB
Standard Reference:	ETSI TS 100 909 V8.9.0 (2005-01) FCC OET KDB 941225, D03 and D04
Category:	Periodic pulsed modulation
Modulation:	GMSK
Frequency Band:	GSM 450 (450.4 - 457.6 MHz) GSM 480 (478.8 - 486.0 MHz) GSM 710 (698.0 - 716.0 MHz) GSM 750 (747.0 - 763.0 MHz) GSM 850 (824.0 - 849.0 MHz) P-GSM 900 (890.0 - 915.0 MHz) E-GSM 900 (880.0 - 915.0 MHz) R-GSM 900 (876.0 - 915.0 MHz) DCS 1800 (1710.0 - 1785.0 MHz) PCS 1900 (1850.0 - 1910.0 MHz) ER-GSM 900 (873.0 - 915.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Active Slot: TN0 Data: PN9 continuous Frame: composed out of 8 Slots Multiframe: 26th (IDLE) Frame set blank Slottype & -timing: Normal burst for GMSK
Bandwidth:	0.2 MHz
Integration Time:	120.0 ms

¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

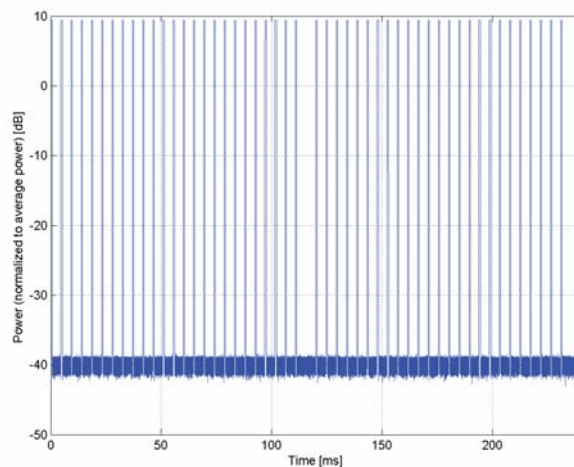
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

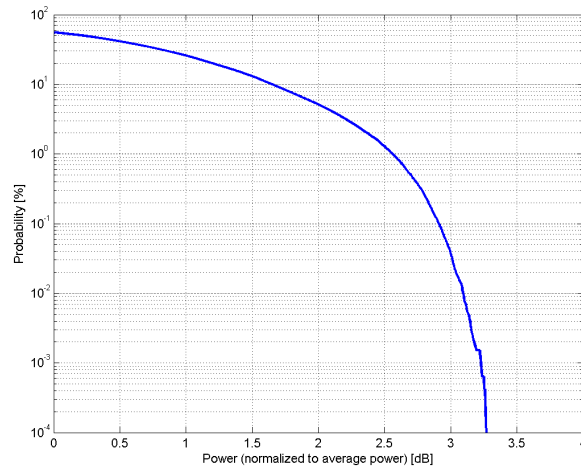


Time Domain

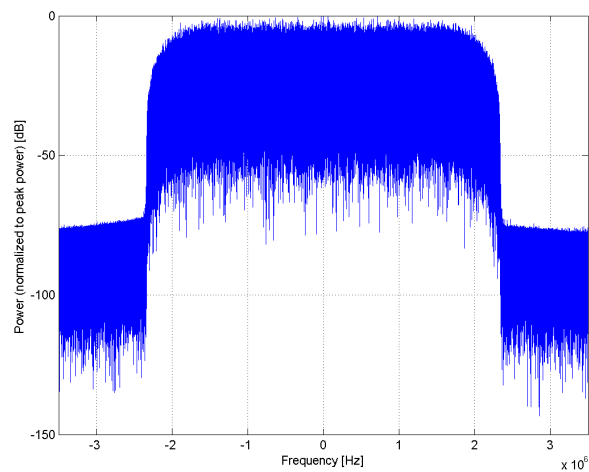
Name:	UMTS-FDD (WCDMA)
Group:	WCDMA
UID:	10011-CAB
PAR: ¹	2.91 dB
MIF: ²	-27.23 dB
Standard Reference:	3GPP TS 25.141 Annex A FCC OET KDB 941225 D01 SAR test for 3G devices v02
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, UTRA/FDD (1920.0-1980.0 MHz, 20000) Band 2, UTRA/FDD (1850.0-1910.0 MHz, 20001) Band 3, UTRA/FDD (1710.0-1785.0 MHz, 20002) Band 4, UTRA/FDD (1710.0-1755.0 MHz, 20003) Band 5, UTRA/FDD (824.0-849.0 MHz, 20004) Band 6, UTRA/FDD (830.0-840.0 MHz, 20005) Band 7, UTRA/FDD (2500.0-2570.0 MHz, 20006) Band 8, UTRA/FDD (880.0-915.0 MHz, 20007) Band 9, UTRA/FDD (1749.9-1784.9 MHz, 20008) Band 10, UTRA/FDD (1710.0-1770.0 MHz, 20009) Band 11, UTRA/FDD (1427.9-1452.9 MHz, 20010) Band 12, UTRA/FDD (698.0-716.0 MHz, 20011) Band 13, UTRA/FDD (777.0-787.0 MHz, 20012) Band 14, UTRA/FDD (788.0-798.0 MHz, 20013) Band 19, UTRA/FDD (830.0-845.0 MHz, 20130) Band 20, UTRA/FDD (832.0-862.0 MHz, 20131) Band 21, UTRA/FDD (1447.9-1462.9 MHz, 20132) Band 22, UTRA/FDD (3410.0-3490.0 MHz, 20217) Band 25, UTRA/FDD (1850.0-1915.0 MHz, 20218) Band 26, UTRA/FDD (814.0-849.0 MHz, 20219)
Detailed Specification:	Dedicated Channel Type: RMC Bitrate: 12.2 kbps DPDCH: 60 kbps DPCCH: 15 kbps DPCCH/DPDCH power ratio: -5.46 dB
Bandwidth:	5.0 MHz
Integration Time:	100.0 ms

¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

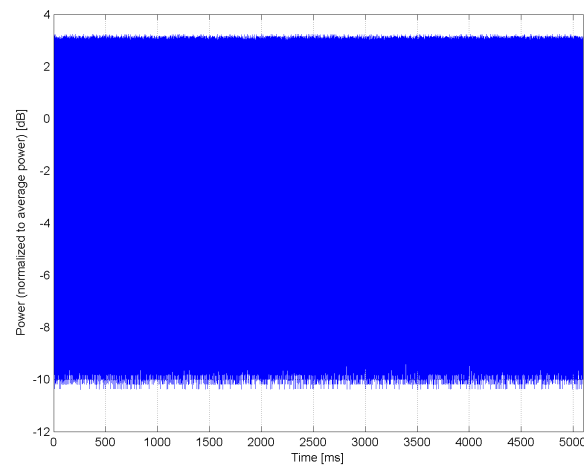
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

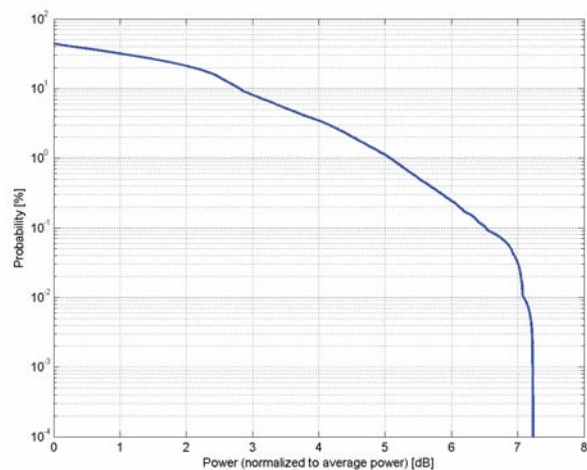


Time Domain

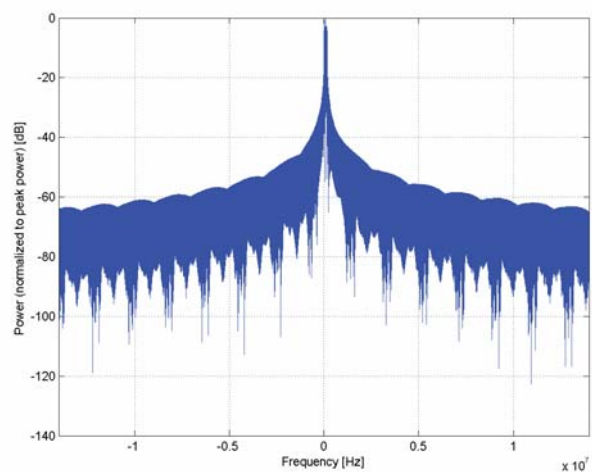
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Name:	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10170-CAE
PAR: ¹	6.52 dB
MIF: ²	-9.76 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 1 Transport Block Size: 256 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

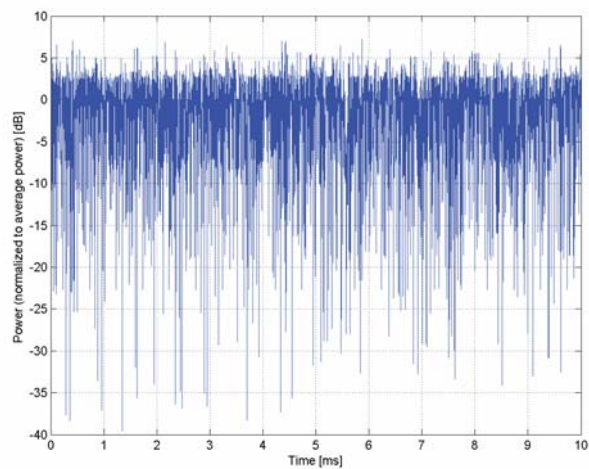
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

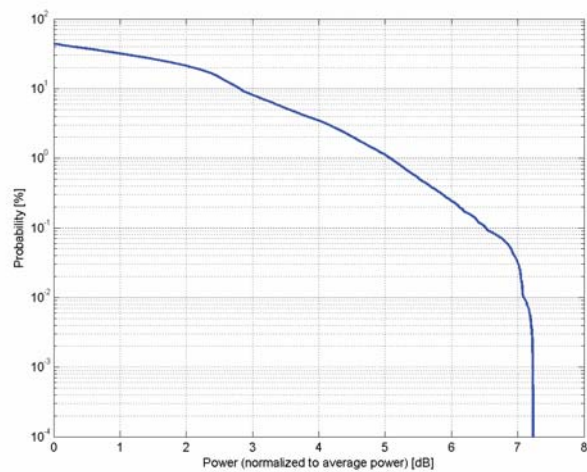


Time Domain

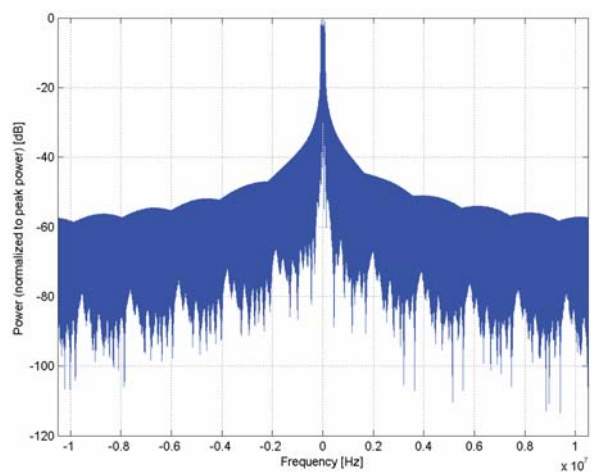
Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10182-CAE
PAR: ¹	6.52 dB
MIF: ²	-9.76 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 1 Transport Block Size: 256 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

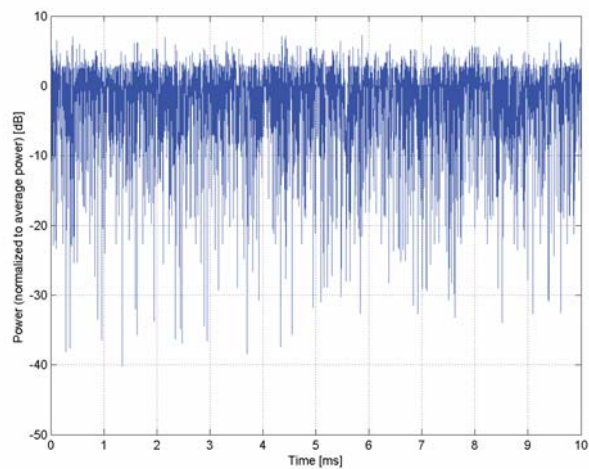
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



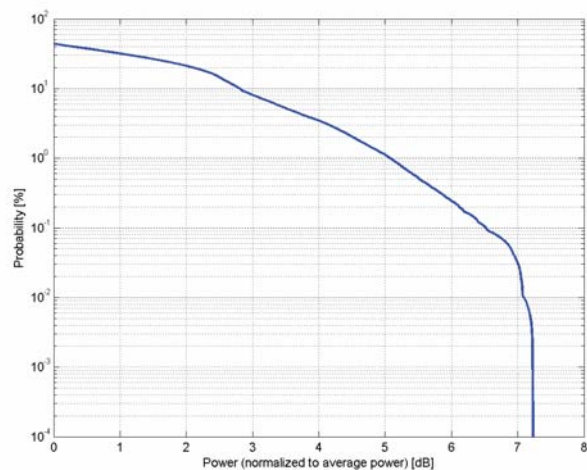
Time Domain

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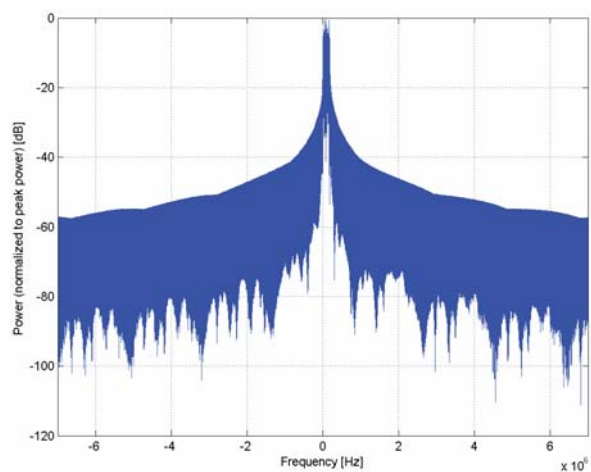
Name:	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)
Group:	LTE-FDD
UID:	10176-CAF
PAR: ¹	6.52 dB
MIF: ²	-9.76 dB
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 6, E-UTRA/FDD (830.0 - 840.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 11, E-UTRA/FDD (1427.9 - 1447.9 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 13, E-UTRA/FDD (777.0 - 787.0 MHz) Band 14, E-UTRA/FDD (788.0 - 798.0 MHz) Band 17, E-UTRA/FDD (704.0 - 716.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 24, E-UTRA/FDD (1626.5 - 1660.5 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 30, E-UTRA/FDD (2305.0 - 2315.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Band 74, E-UTRA/FDD (1427.0 - 1470.0 MHz) Validation band (0.0 - 6000.0 MHz)
Frequency Band:	
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 1 Transport Block Size: 256 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

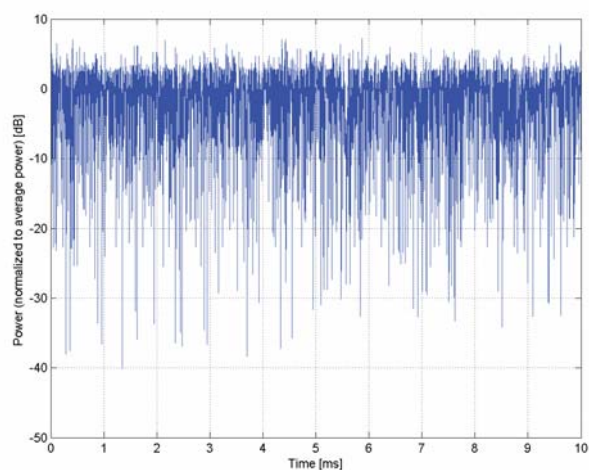
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

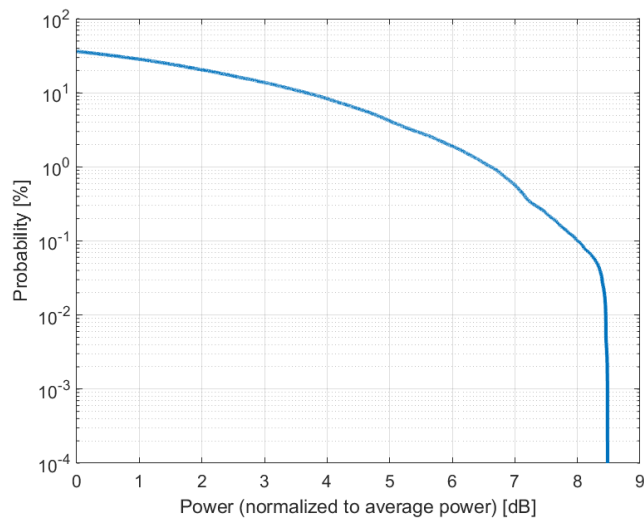


Time Domain

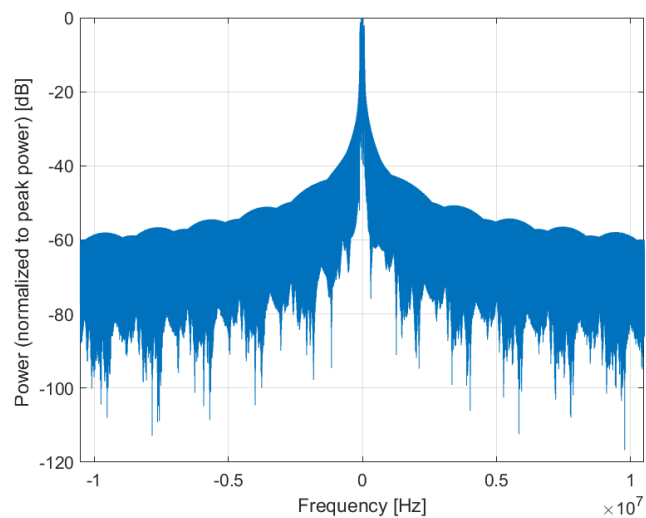
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Name:	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)
Group:	5G NR FR1 TDD
UID:	10769-AAC
PAR: ¹	8.01 dB
MIF: ²	-12.08 dB
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band n34 (2010 - 2025 MHz) Band n38 (2570 - 2620 MHz) Band n39 (1880 - 1920 MHz) Band n40 (2300 - 2400 MHz) Band n41 (2496 - 2690 MHz) Band n48 (3550 - 3700 MHz) Band n50 (1432 - 1517 MHz) Band n77 (3300 - 4200 MHz) Band n78 (3300 - 3800 MHz) Band n79 (4400 - 5000 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Multiplexing Scheme: CP-OFDM Modulation Scheme: QPSK Subcarrier Spacing: 15 kHz Number RBs: 1 Slot Format Index: 1 Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

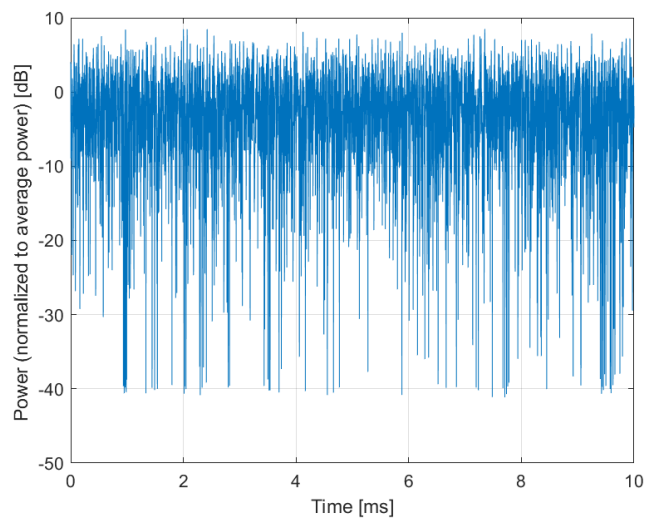
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

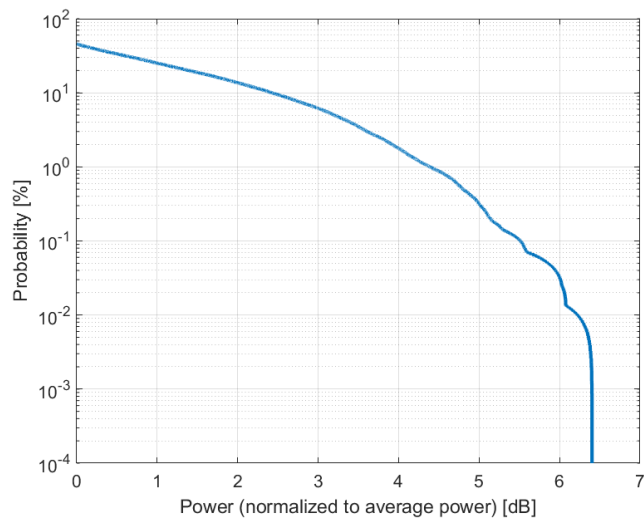


Time Domain

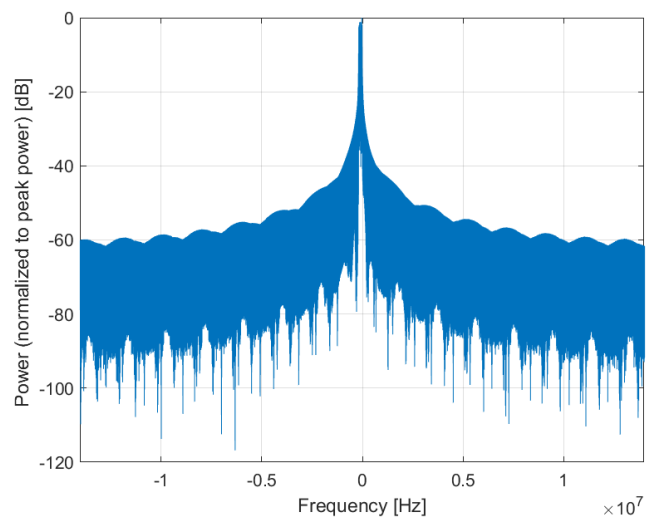
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Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	5G NR (DFT-s-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)
Group:	5G NR FR1 FDD
UID:	10931-AAA
PAR: ¹	5.51 dB
MIF: ²	-15.06 dB
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band n2 (1850 - 1910 MHz) Band n2 (824 - 849 MHz) Band n25 (1850 - 1915 MHz) Band n71 (1710 - 1780 MHz) Band n71 (617 - 652 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Multiplexing Scheme: DFT-s-OFDM Modulation Scheme: QPSK Subcarrier Spacing: 15 kHz Number RBs: 1 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

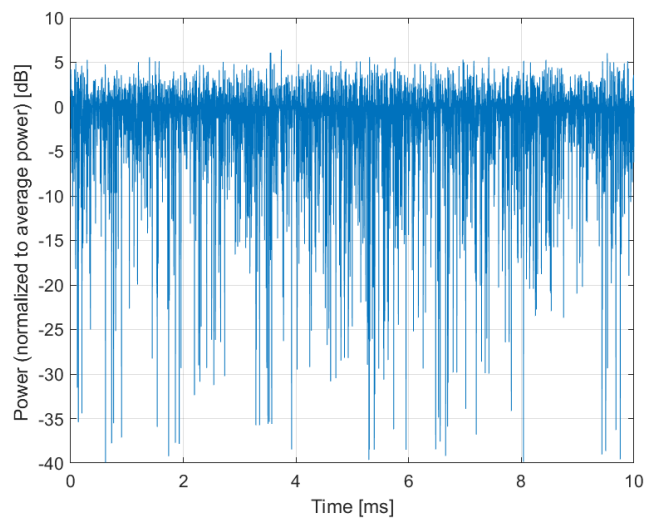
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

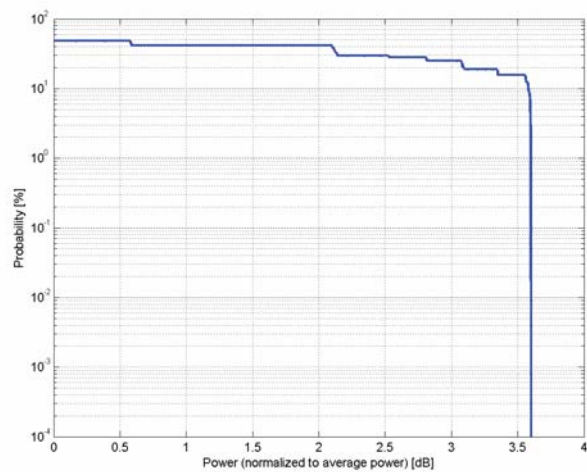


Time Domain

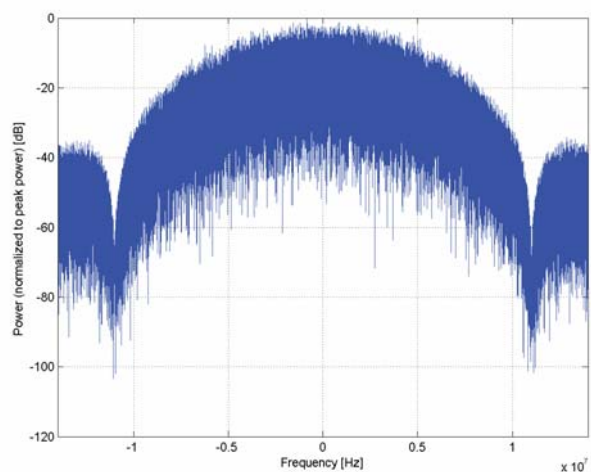
Name:	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)
Group:	WLAN
UID:	10061-CAB
PAR: ¹	3.60 dB
MIF: ²	-2.02 dB
Standard Reference:	IEEE 802.11b-1999 , Part 11, FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	DQPSK
Frequency Band:	WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification:	Data Rate: 11 Mbps Spreading, Coding: CCK PPDU format: Long Preamble & Heading PSDU Length: 1024 PSDU Data: PN9
Bandwidth:	20.0 MHz
Integration Time:	1.5 ms

¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

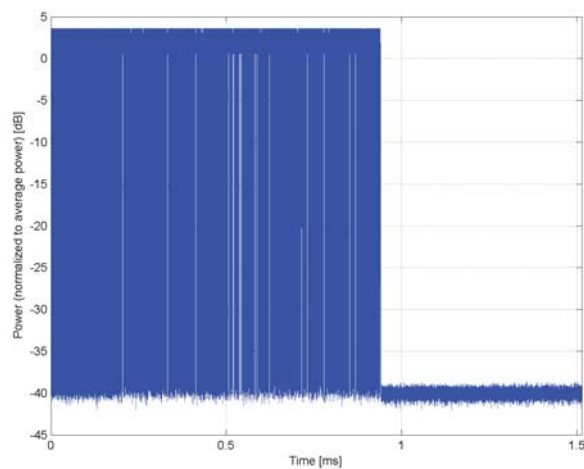
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Name: **IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)**

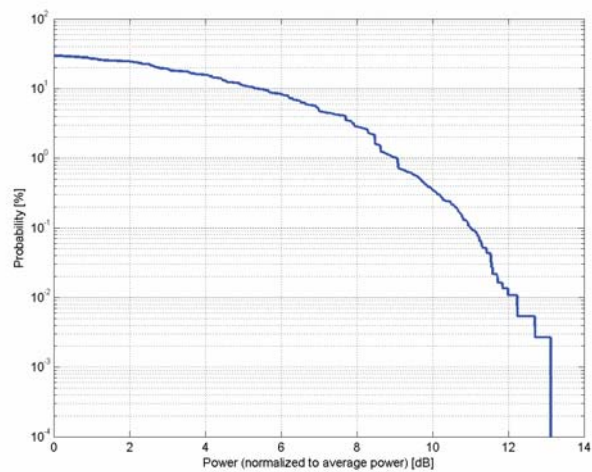
Group: WLAN
UID: 10077-CAB

PAR: ¹ **11.00 dB**
MIF: ² **0.12 dB**

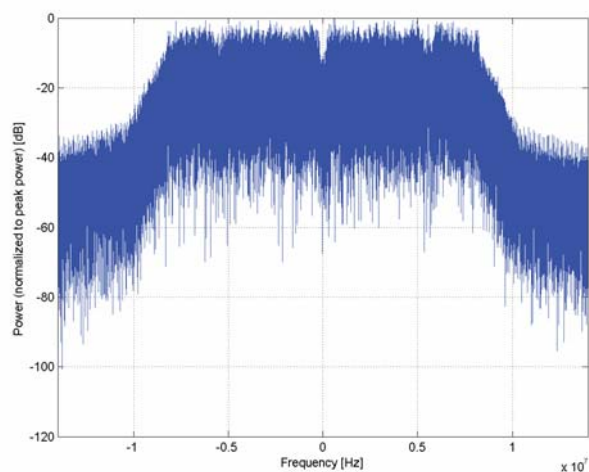
Standard Reference: IEEE 802.11g-2003 , Part 11
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category: Random amplitude modulation
Modulation: 64-QAM
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification: Data Rate: 54 Mbps
Coding Rate: 3/4
Coded bits per subcarrier: 6
Coded bits per OFDM symbol: 288
Data bits per OFDM symbol: 216
PSDU Length: 1000 Bytes
PSDU Data: PN9
Bandwidth: 20.0 MHz
Integration Time: 0.9 ms

¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

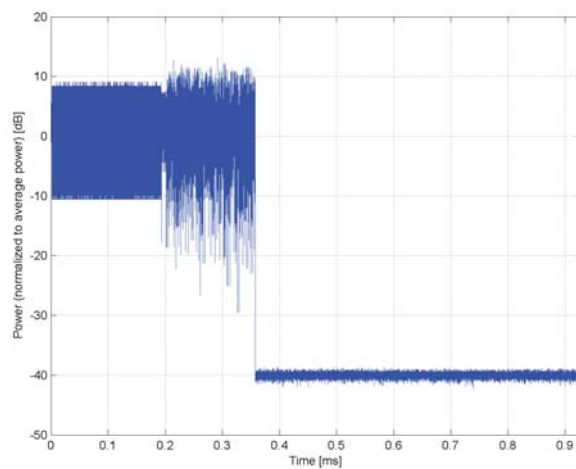
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

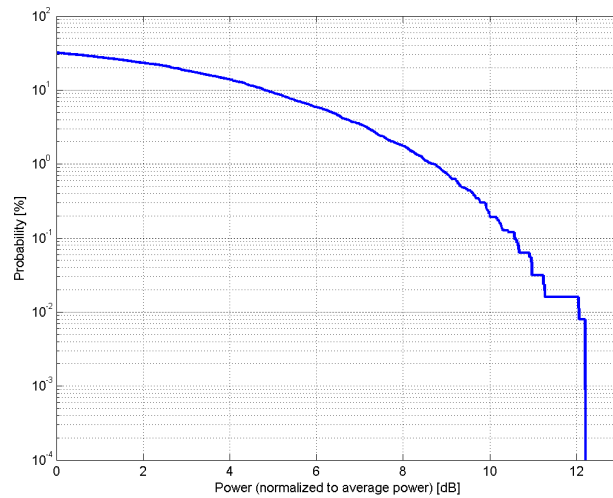


Time Domain

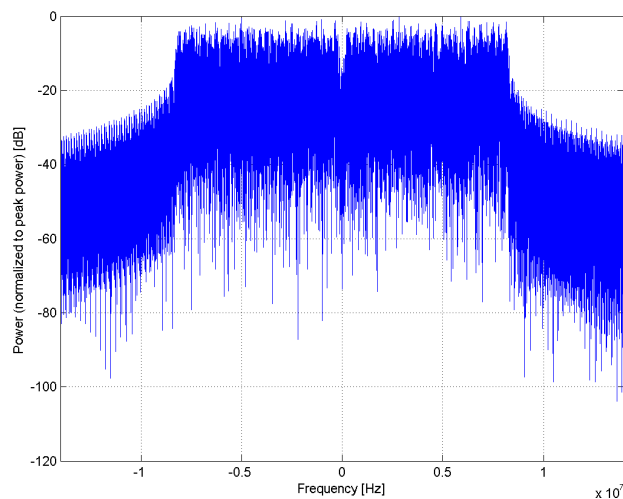
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Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)
Group:	WLAN
UID:	10069-CAC
PAR: ¹	10.56 dB
MIF: ²	-3.15 dB
Standard Reference:	IEEE 802.11a-1999 (R2003) , Part 11 IEEE 802.11h-2003 , Part 11 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, U-NII-2A (5170 - 5330 MHz) U-NII-2C Standalone (5490 - 5710 MHz) U-NII-2C <5.65 GHz (5490 - 5650 MHz) U-NII-3 Standalone (5735 - 5835 MHz) U-NII-2C, U-NII-3 (5650 - 5835 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Data Rate: 54 Mbps Coding Rate: 3/4 Coded bits per subcarrier: 6 Coded bits per OFDM symbol: 288 Data bits per OFDM symbol: 216 PSDU Length: 1000 Bytes PSDU Data: PN9
Bandwidth:	20.0 MHz
Integration Time:	0.3 ms

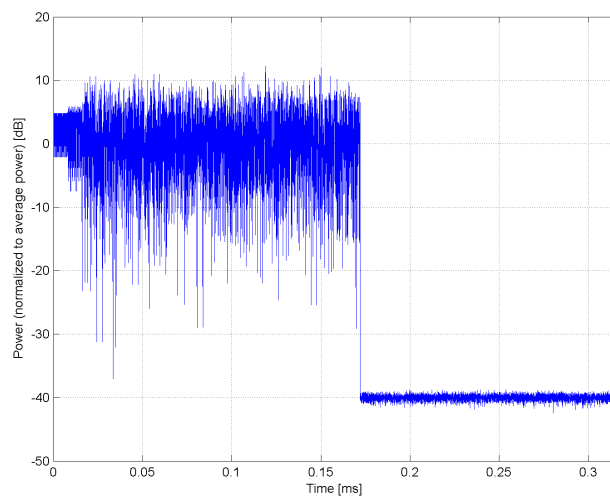
¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

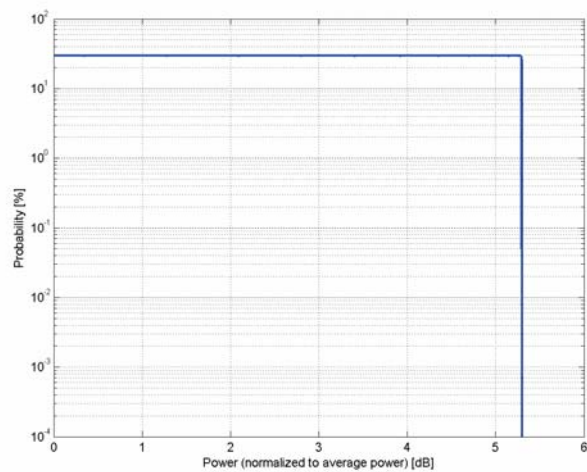


Time Domain

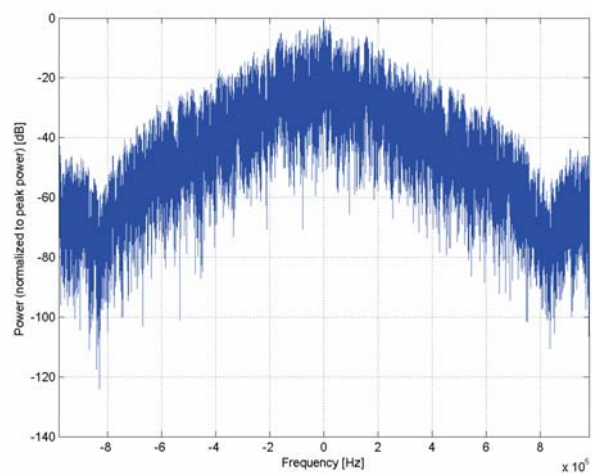
Name:	IEEE 802.15.1 Bluetooth (GFSK, DH1)
Group:	Bluetooth
UID:	10030-CAA
PAR: ¹	5.30 dB
MIF: ²	1.02 dB
Standard Reference:	Bluetooth 1.2 (IEEE Standard 802.15.1-2005)
Category:	Periodic pulsed modulation
Modulation:	GFSK
Frequency Band:	ISM 2.4 GHz Band (2400.0-2483.5 MHz, 20052)
Detailed Specification:	Basic Rate, 1 Slot active Data Rate: 1 Mbps Packet Type: DH1 Payload Body: 27 Bytes PN9 data is inserted into the payload body Modulation for Payload: GFSK Modulation Index: 0.32
Bandwidth:	1.4 MHz
Integration Time:	2.5 ms

¹ PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

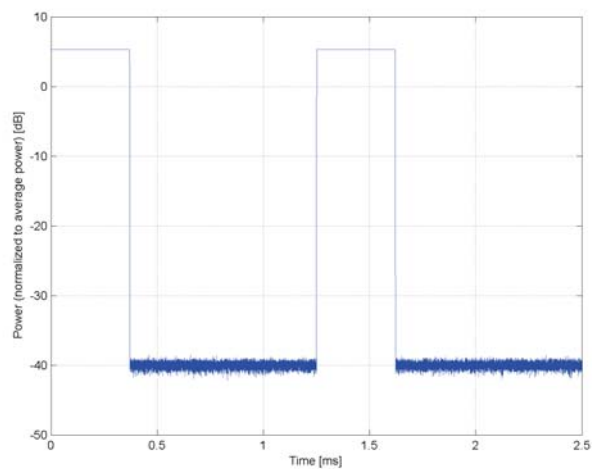
² Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain