

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

Name: **LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)**

Group: LTE-TDD  
UID: 10410-AAG

PAR: <sup>1</sup> **7.82 dB**  
MIF: <sup>2</sup> **-3.41 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

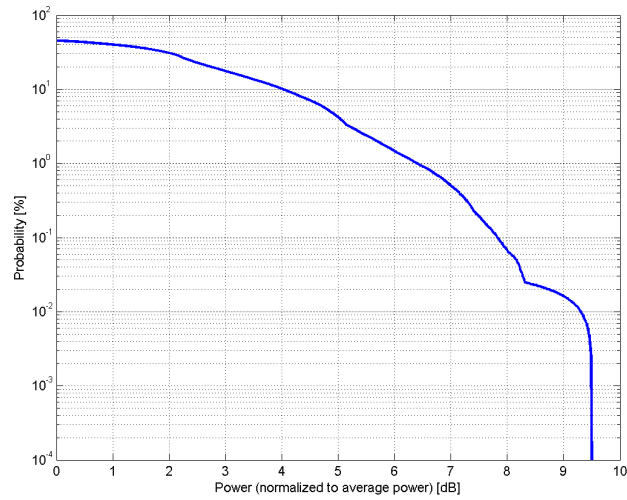
Category: Random amplitude modulation  
Modulation: QPSK  
Frequency Band: Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz)  
Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz)  
Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz)  
Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)  
Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz)  
Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz)  
Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)  
Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz)  
Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz)  
Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz)  
Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz)  
Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 4  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 25  
Data Type: PN9fix

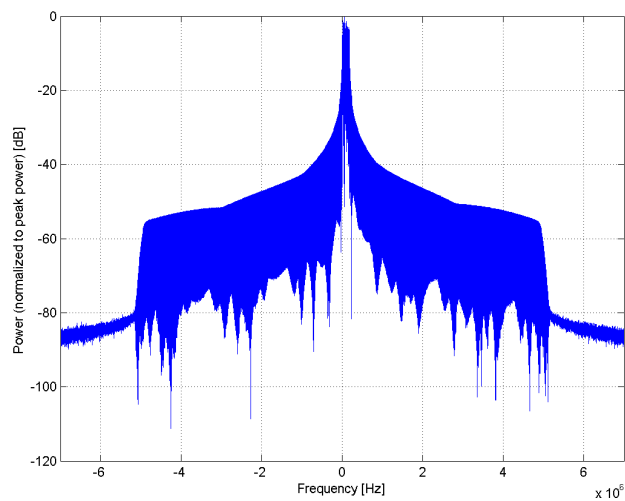
Bandwidth: 10.0 MHz  
Integration Time: 10.0 ms

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

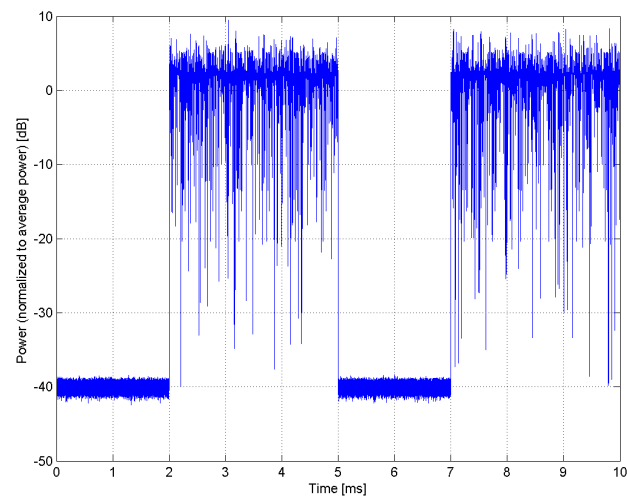
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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Name: **IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)**

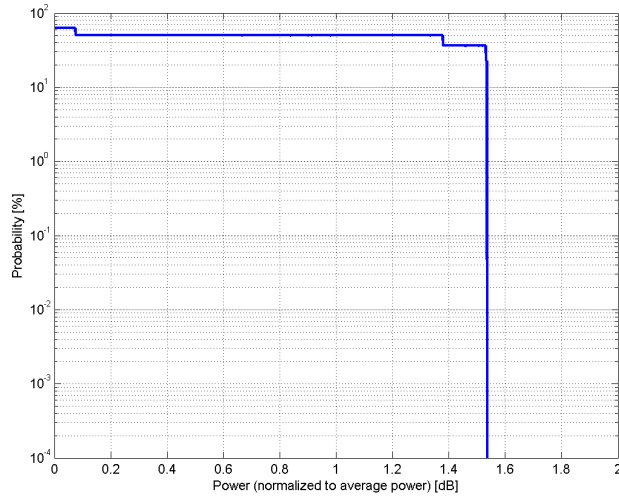
Group: WLAN  
UID: 10415-AAA

PAR: <sup>1</sup> **1.54 dB**  
MIF: <sup>2</sup> **-17.55 dB**

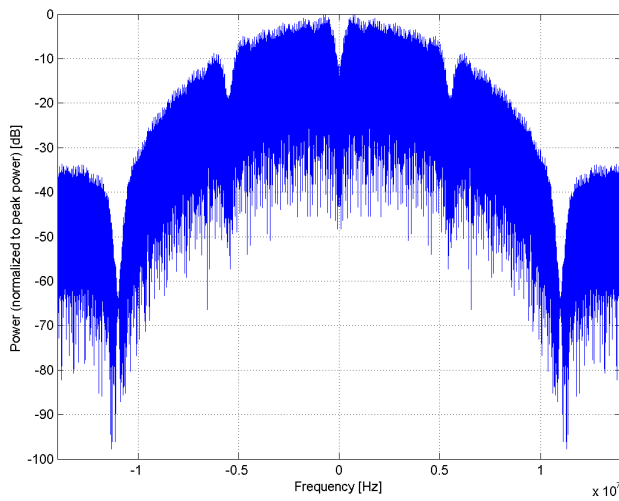
Standard Reference: IEEE 802.11-2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: DBPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 99 %  
PSDU length: 1024 bytes  
Preamble type: long  
Data Rate: 1Mbps  
Burst on time: 8384us  
Bandwidth: 20.0 MHz  
Integration Time: 8.5 ms

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

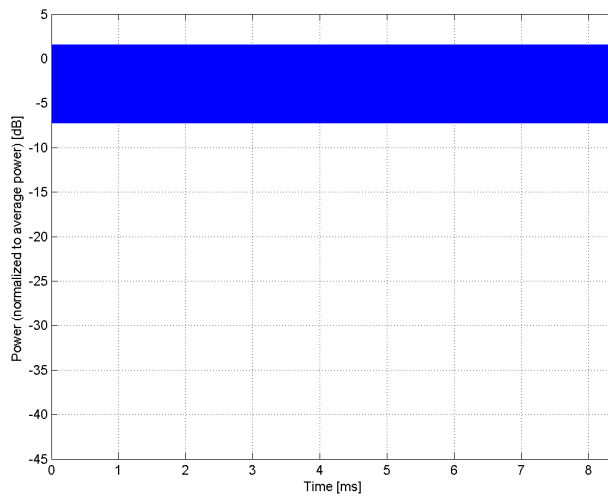
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



**Time Domain**

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Name: **IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)**

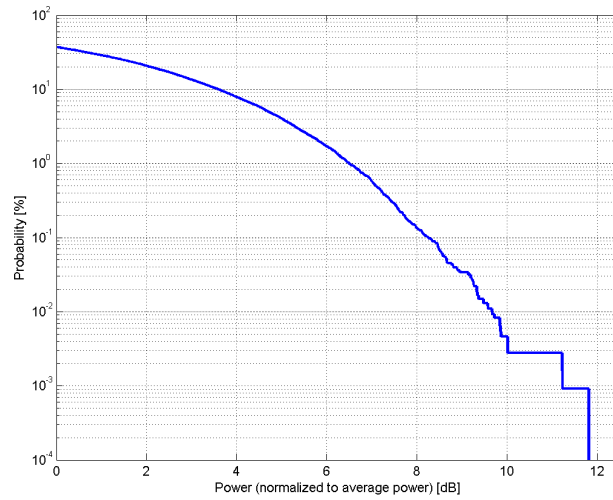
Group: WLAN  
UID: 10416-AAA

PAR: <sup>1</sup> **8.23 dB**  
MIF: <sup>2</sup> **-18.74 dB**

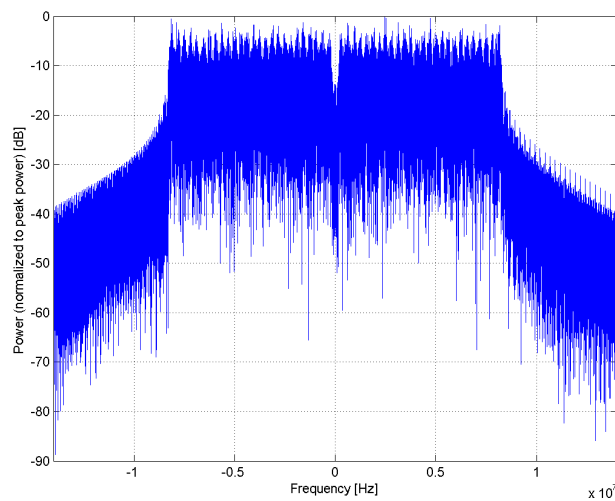
Standard Reference: IEEE 802.11 2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: BPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 99 %  
PSDU length: 1000 bytes  
Frame format: ERP-OFDM  
Data Rate: 6Mbps  
Burst on time: 1360us  
Preamble type: long  
Bandwidth: 20.0 MHz  
Integration Time: 1.4 ms

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

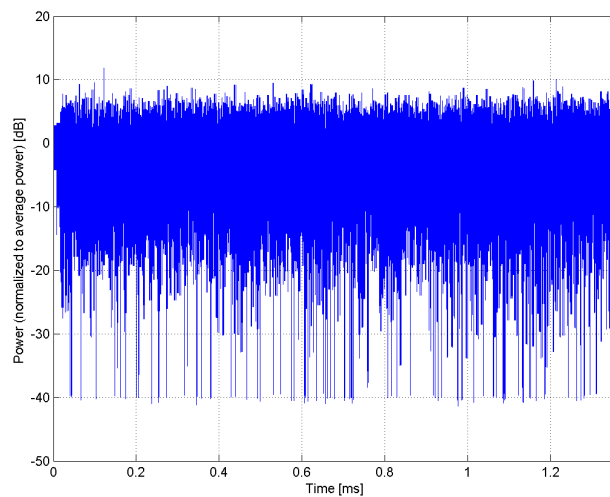
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



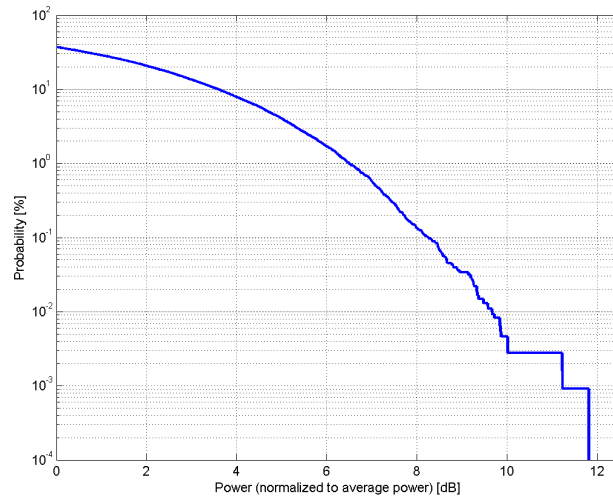
### Time Domain

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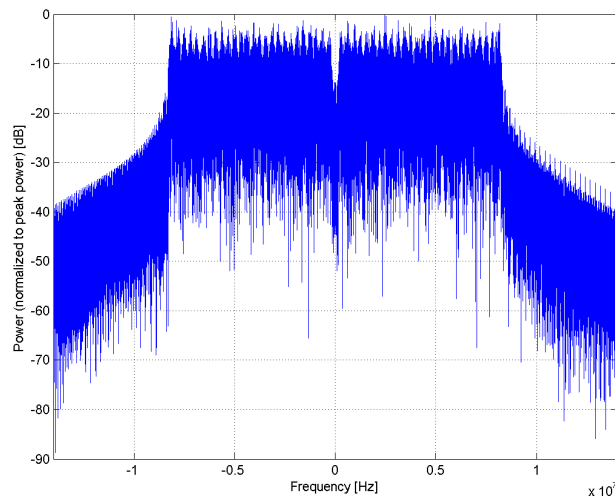
Name:	<b>IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)</b>
Group:	WLAN
UID:	10417-AAB
PAR: <sup>1</sup>	<b>8.23 dB</b>
MIF: <sup>2</sup>	<b>-18.74 dB</b>
Standard Reference:	IEEE 802.11-2012 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	BPSK
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:	Duty cycle: 99% PSDU length: 1000 bytes Data Rate: 6Mbps Burst on time: 1360us
Bandwidth:	20.0 MHz
Integration Time:	1.4 ms

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

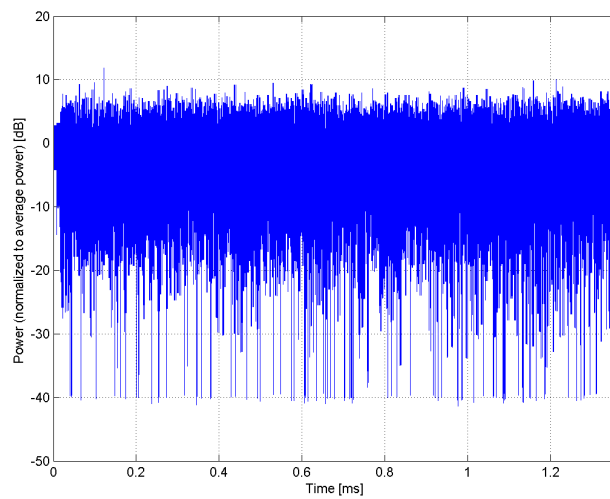
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain



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Name: **IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preamble)**

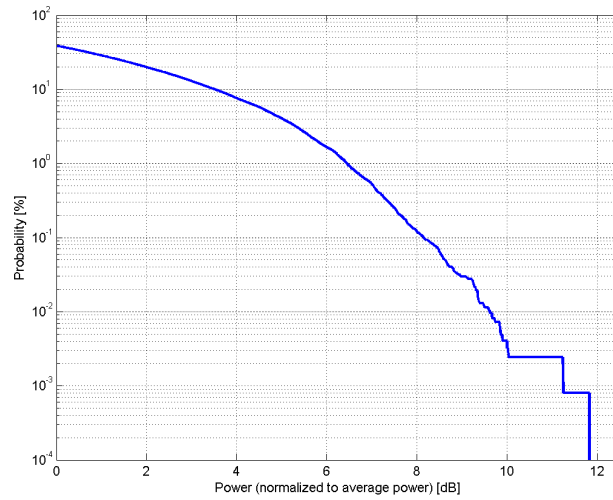
Group: WLAN  
UID: 10418-AAA

PAR: <sup>1</sup> **8.14 dB**  
MIF: <sup>2</sup> **-17.11 dB**

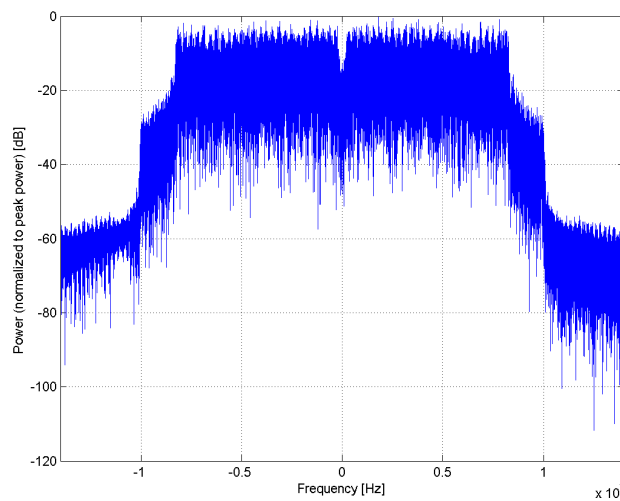
Standard Reference: IEEE 802.11-2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)  
Category: Random amplitude modulation  
Modulation: BPSK  
Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)  
Detailed Specification: Duty cycle: 99 %  
PSDU length: 1000 bytes  
Frame format: DSSS-OFDM  
Data Rate: 6Mbps  
Burst on time: 1496us  
Preamble type: long  
Bandwidth: 20.0 MHz  
Integration Time: 1.5 ms

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

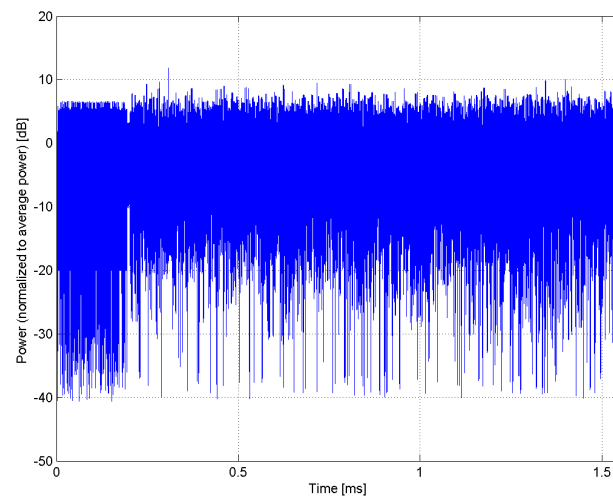
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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Name: **IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preamble)**

Group: WLAN  
UID: 10419-AAA

PAR: <sup>1</sup> **8.19 dB**  
MIF: <sup>2</sup> **-18.31 dB**

Standard Reference: IEEE 802.11-2012  
FCC SAR meas for 802 11 a b g v01r02 (248227 D01)

Category: Random amplitude modulation

Modulation: BPSK

Frequency Band: WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)

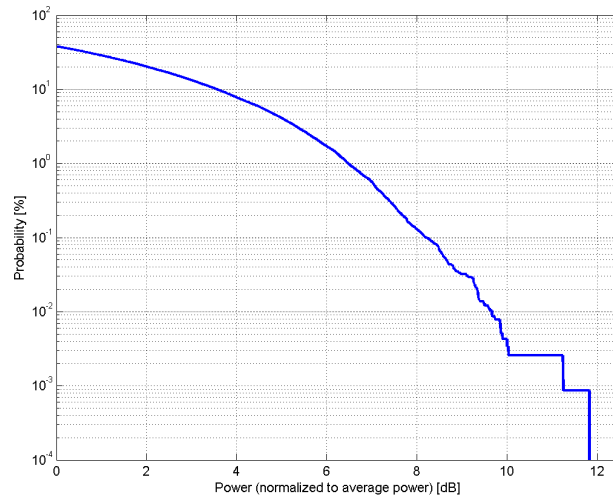
Detailed Specification: Duty cycle: 99 %  
PSDU length: 1000 bytes  
Frame format: DSSS-OFDM  
Data Rate: 6Mbps  
Burst on time: 1496us  
Preamble type: short

Bandwidth: 20.0 MHz

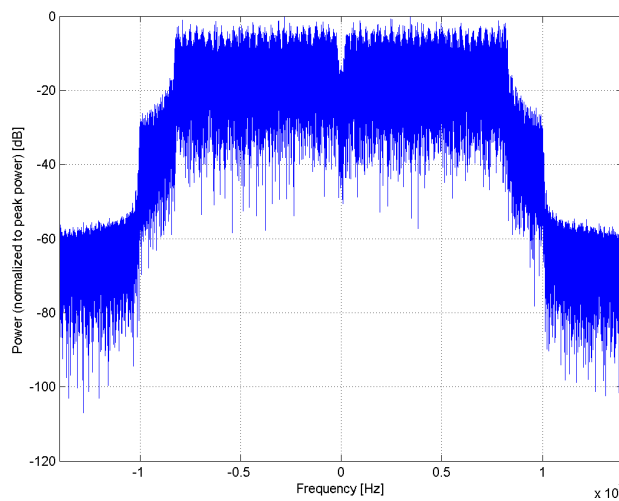
Integration Time: 1.5 ms

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

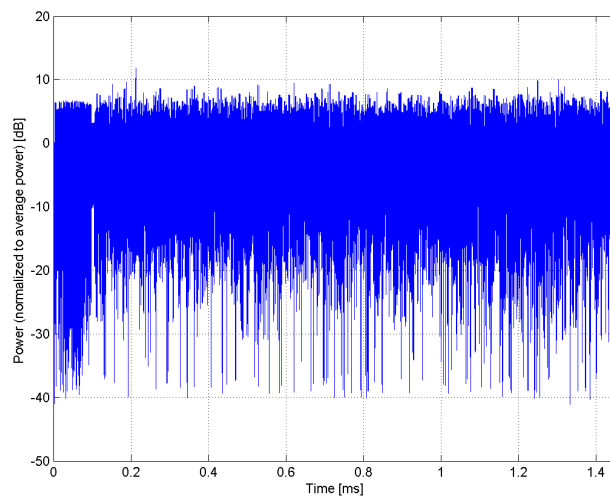
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



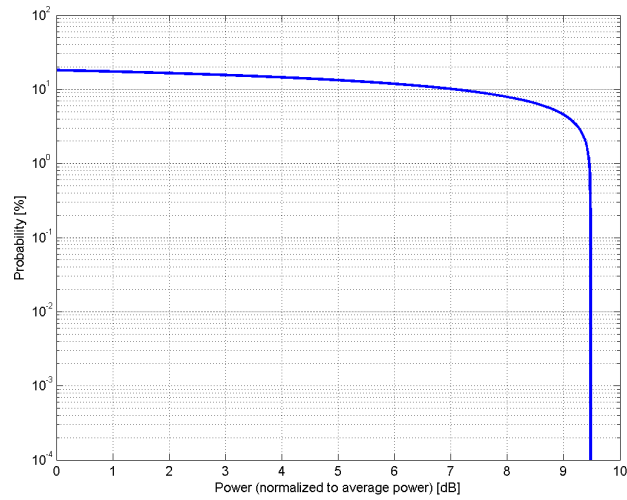
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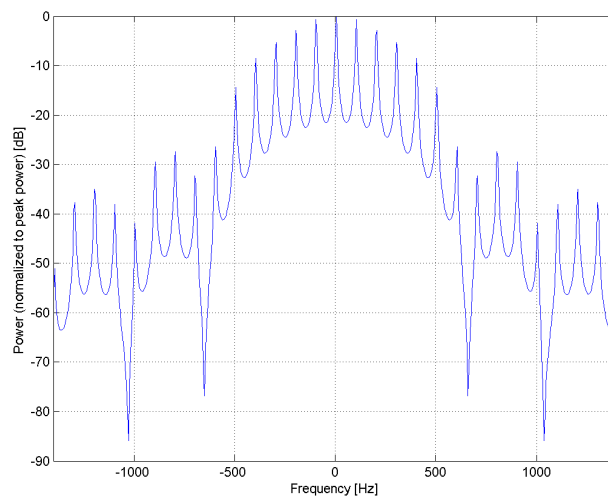
Name:	<b>FSE MRI sequence (pi Sinc, 10ms, 2.5 ms)</b>
Group:	MRI
UID:	10421-AAC
PAR: <sup>1</sup>	<b>9.48 dB</b>
MIF: <sup>2</sup>	<b>1.87 dB</b>
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Fast Spin Echo Pulse Shape: Sinc +/- Pi Repetition Rate: 100 Hz Duty Cycle: 25%
Bandwidth:	0.0 MHz
Integration Time:	10.0 ms

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

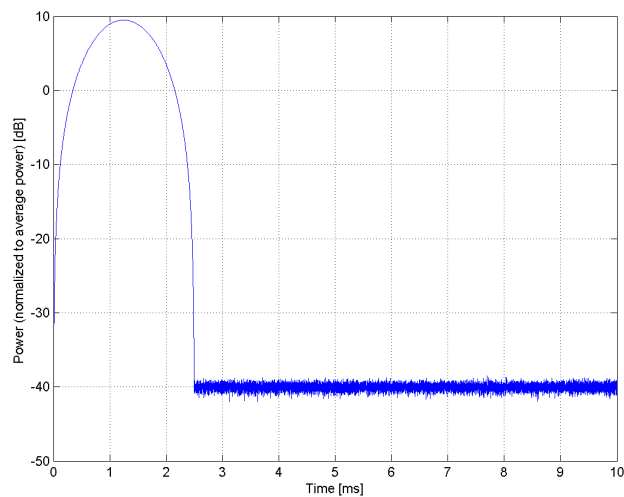
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



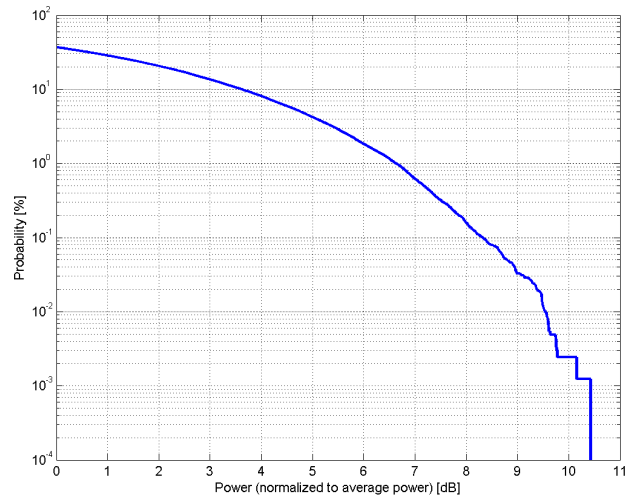
### Time Domain

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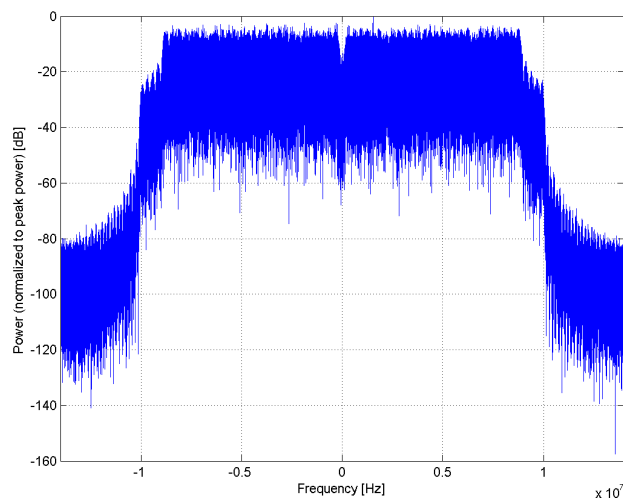
Name:	<b>IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)</b>
Group:	WLAN
UID:	10422-AAB
PAR: <sup>1</sup>	<b>8.32 dB</b>
MIF: <sup>2</sup>	<b>-14.20 dB</b>
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 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:	Modulation: BPSK Data Rate: 7.2 Mbps PPDU Format: HT Greenfield PPDU Type: 20 MHz MCS Index: 0 Guard Interval: Short Duty Cycle: 99%
Bandwidth:	20.0 MHz
Integration Time:	2.0 ms

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

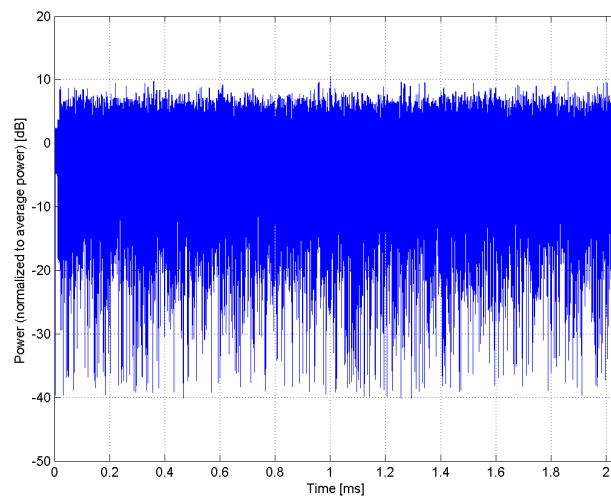
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

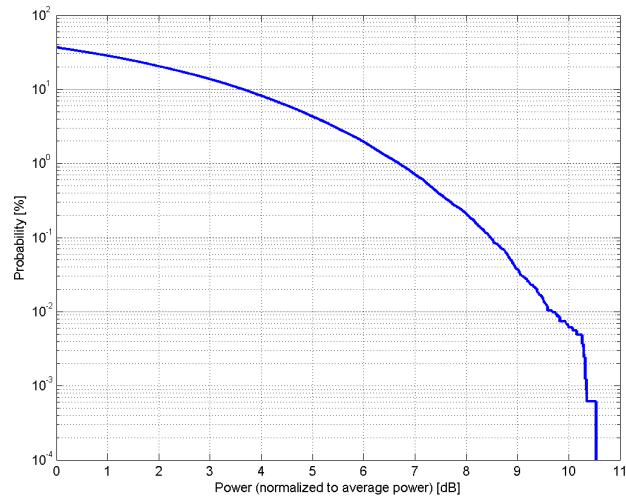


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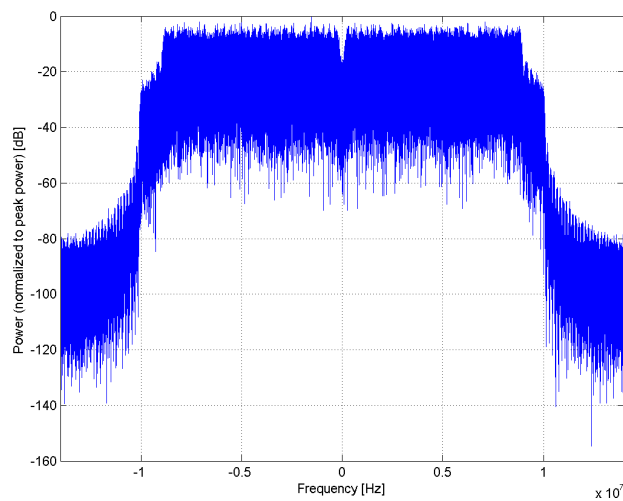
Name:	<b>IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)</b>
Group:	WLAN
UID:	10423-AAB
PAR: <sup>1</sup>	<b>8.47 dB</b>
MIF: <sup>2</sup>	<b>-13.60 dB</b>
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 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:	Modulation: 16-QAM Data Rate: 43.3 Mbps PPDU Format: HT Greenfield PPDU Type: 20 MHz MCS Index: 4 Guard Interval: Short Duty Cycle: 99%
Bandwidth:	20.0 MHz
Integration Time:	2.0 ms

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

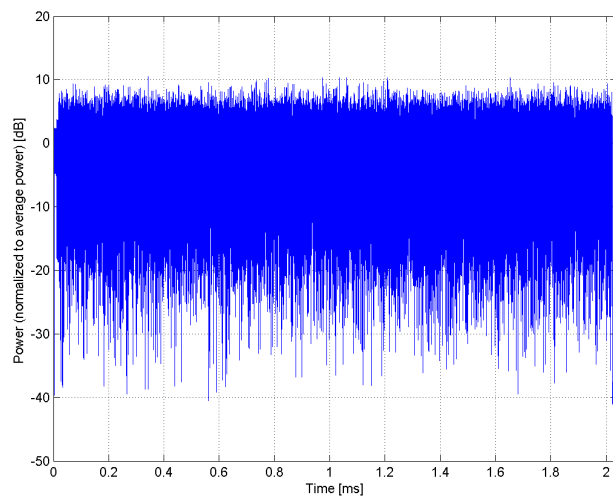
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



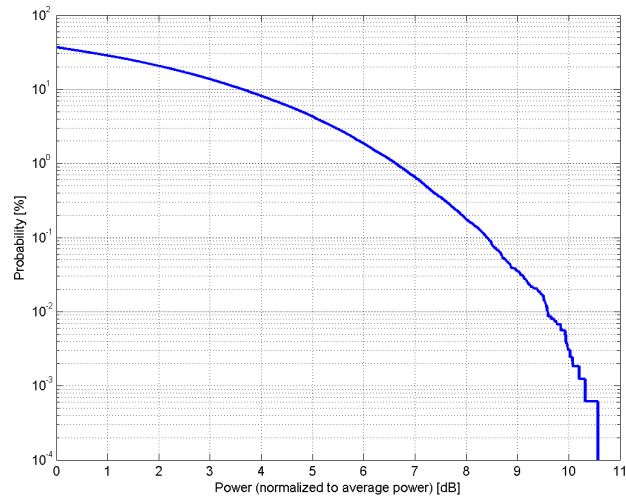
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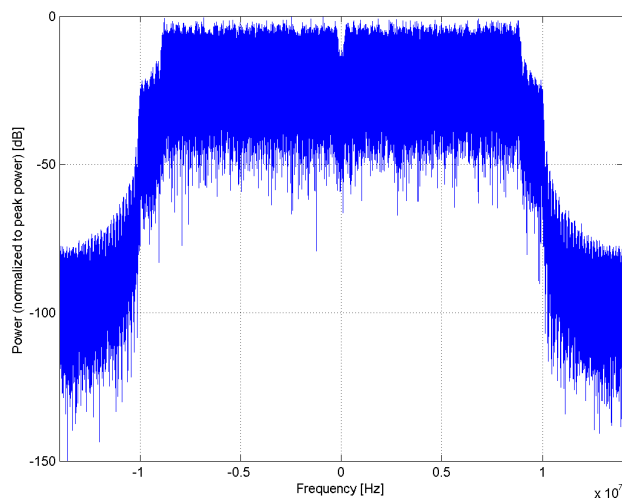
Name:	<b>IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)</b>
Group:	WLAN
UID:	10424-AAB
PAR: <sup>1</sup>	<b>8.40 dB</b>
MIF: <sup>2</sup>	<b>-13.84 dB</b>
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 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:	Modulation: 64-QAM Data Rate: 72.2 Mbps PPDU Format: HT Greenfield PPDU Type: 20 MHz MCS Index: 7 Guard Interval: Short Payload Length: 1767
Bandwidth:	20.0 MHz
Integration Time:	2.0 ms

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

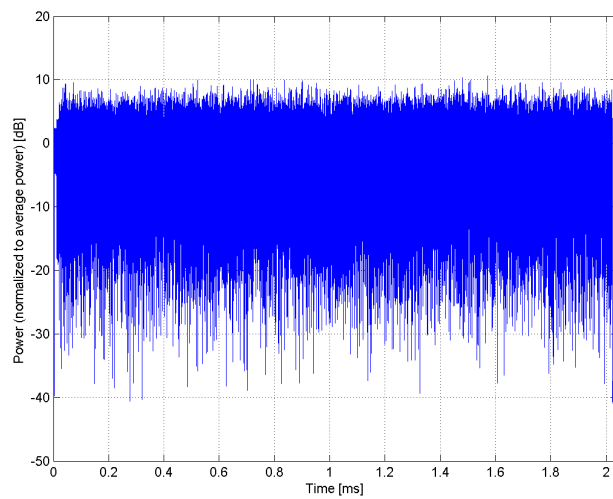
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



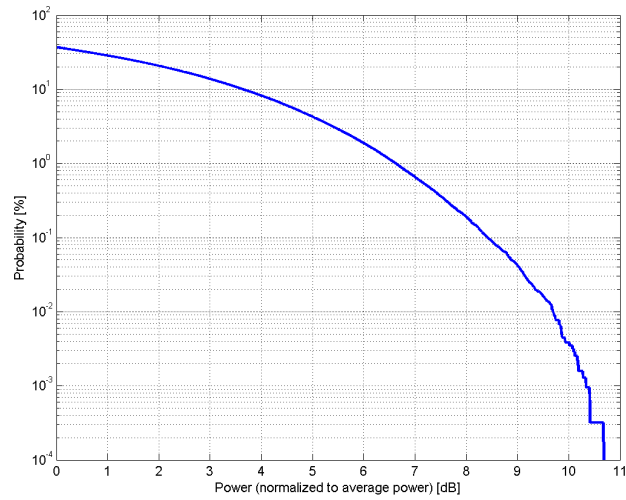
### Time Domain

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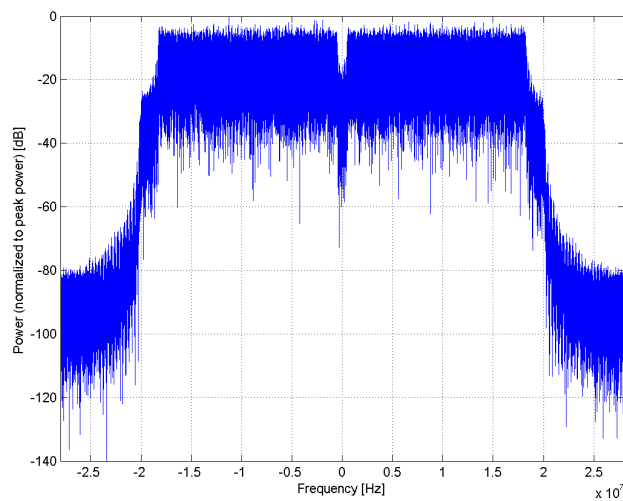
Name:	<b>IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)</b>
Group:	WLAN
UID:	10425-AAB
PAR: <sup>1</sup>	<b>8.41 dB</b>
MIF: <sup>2</sup>	<b>-13.52 dB</b>
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (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:	Modulation: BPSK Data Rate:15 Mbps PPDU Format: HT Greenfield PPDU Type: 40 MHz MCS Index: 0 Guard Interval: Short Payload Length: 1767
Bandwidth:	40.0 MHz
Integration Time:	2.0 ms

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

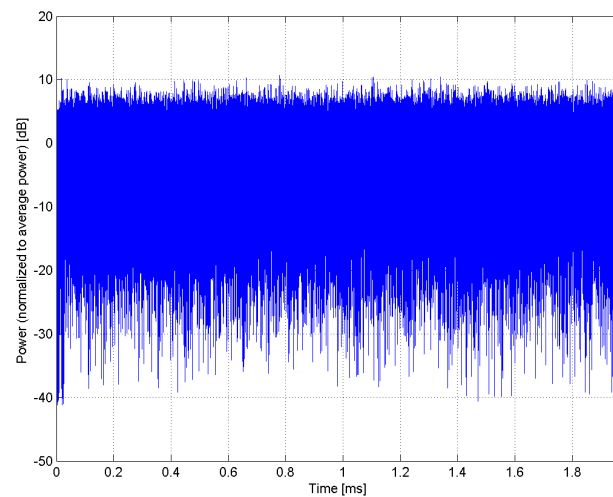
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



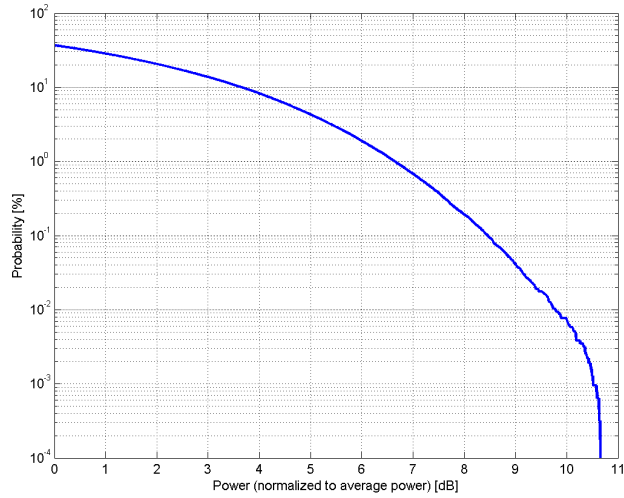
### Time Domain

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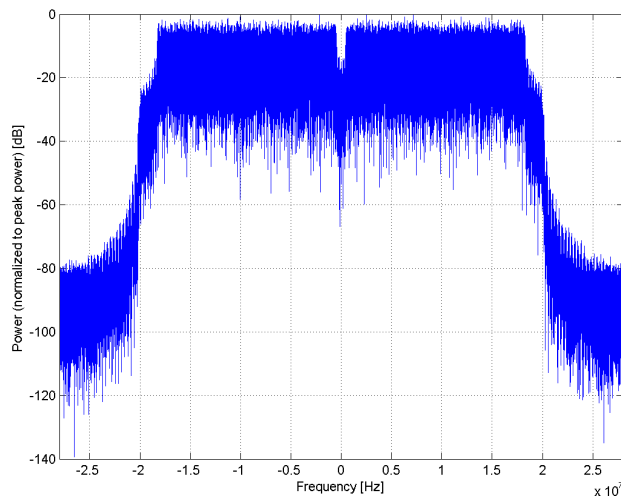
Name:	<b>IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)</b>
Group:	WLAN
UID:	10426-AAB
PAR: <sup>1</sup>	<b>8.45 dB</b>
MIF: <sup>2</sup>	<b>-13.71 dB</b>
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 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:	Modulation: 16-QAM Data Rate: 90 Mbps PPDU Format: HT Greenfield PPDU Type: 40 MHz MCS Index: 4 Guard Interval: Short Payload Length: 1767
Bandwidth:	40.0 MHz
Integration Time:	2.0 ms

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

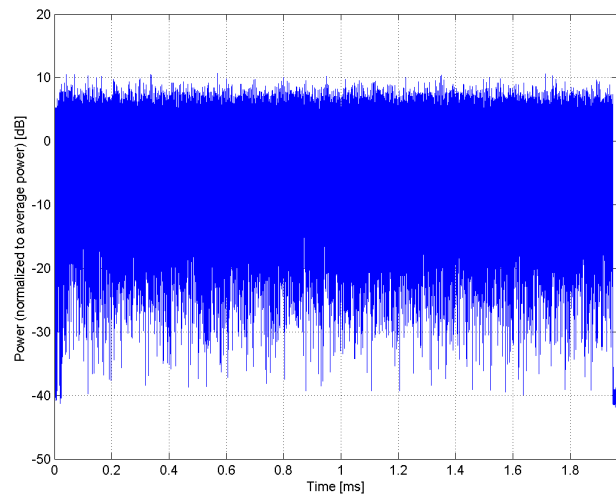
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



**Time Domain**

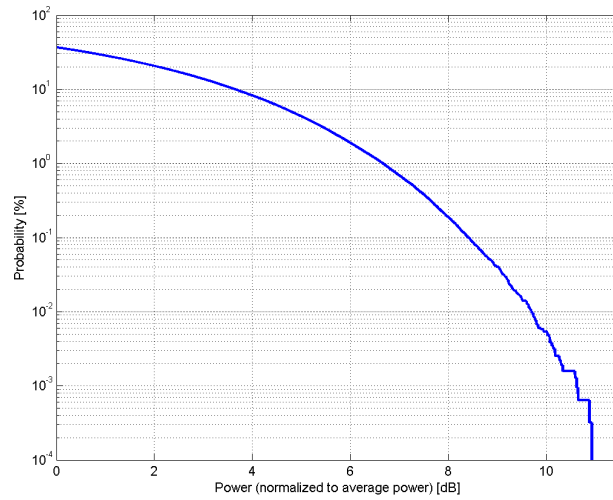


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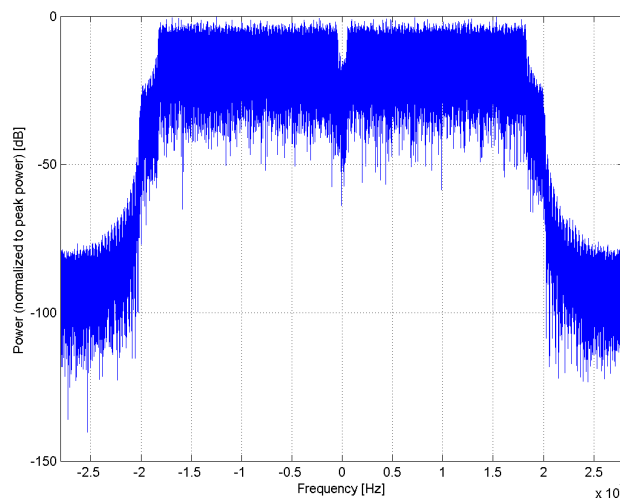
Name:	<b>IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)</b>
Group:	WLAN
UID:	10427-AAB
PAR: <sup>1</sup>	<b>8.41 dB</b>
MIF: <sup>2</sup>	<b>-13.44 dB</b>
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 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:	Modulation: 64-QAM Data Rate: 150 Mbps PPDU Format: HT Greenfield PPDU Type: 40 MHz MCS Index: 7 Guard Interval: Short Duty Cycle: 99%
Bandwidth:	40.0 MHz
Integration Time:	2.0 ms

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

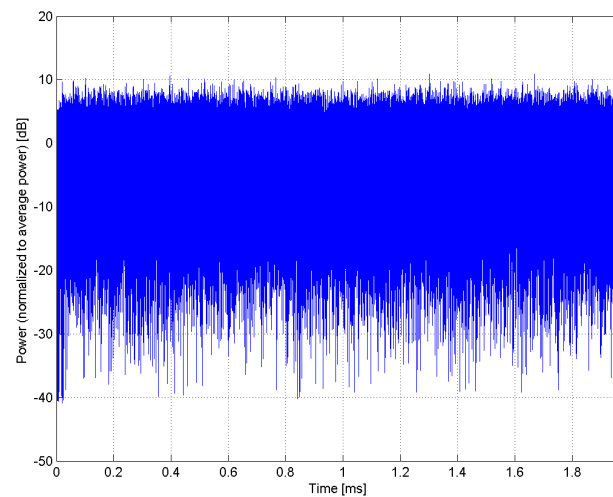
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



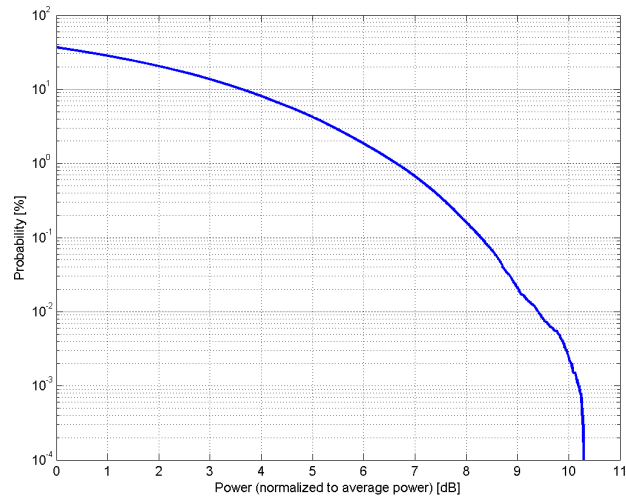
### Time Domain

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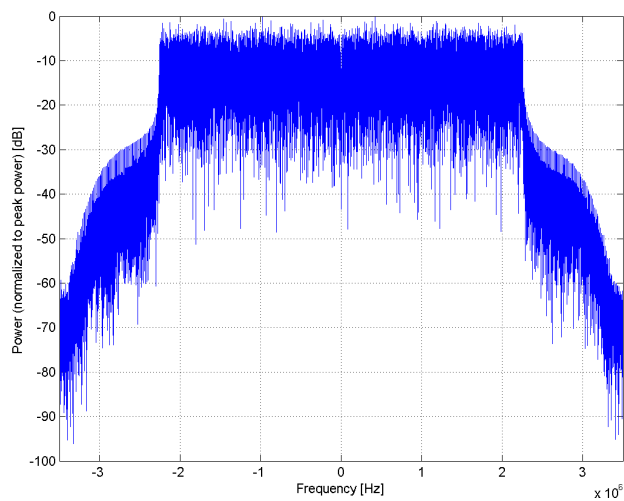
Name:	<b>LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)</b>
Group:	LTE-FDD
UID:	10430-AAD
PAR: <sup>1</sup>	<b>8.28 dB</b>
MIF: <sup>2</sup>	<b>-16.24 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz) Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz) Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz) Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz) Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz) Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz) Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz) Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz) Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz) Band 30, E-UTRA/FDD, Downlink (2350.0 - 2360.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz) Band 69, E-UTRA/FDD, Downlink (2570.0 - 2620.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 72, E-UTRA/FDD, Downlink (461.0 - 466.0 MHz) Band 73, E-UTRA/FDD, Downlink (460.0 - 465.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD, Downlink (1427.0 - 1432.0 MHz) Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1)
Bandwidth:	Bandwidth: 5MHz 5.0 MHz
Integration Time:	20.0 ms

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

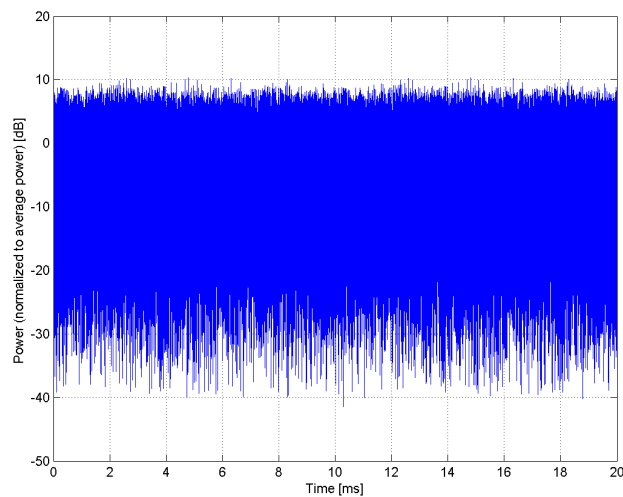
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



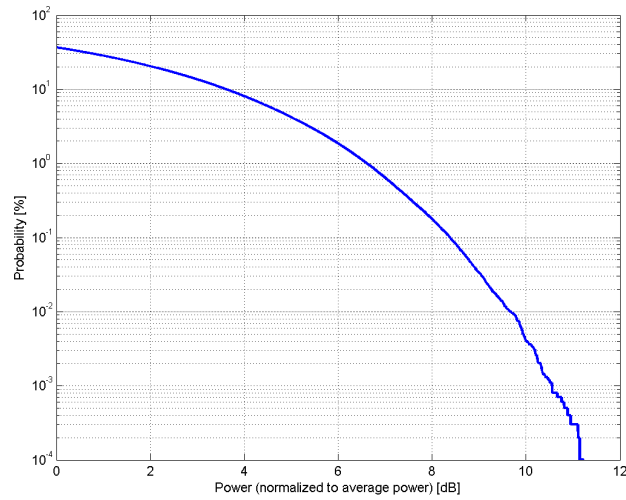
### Time Domain

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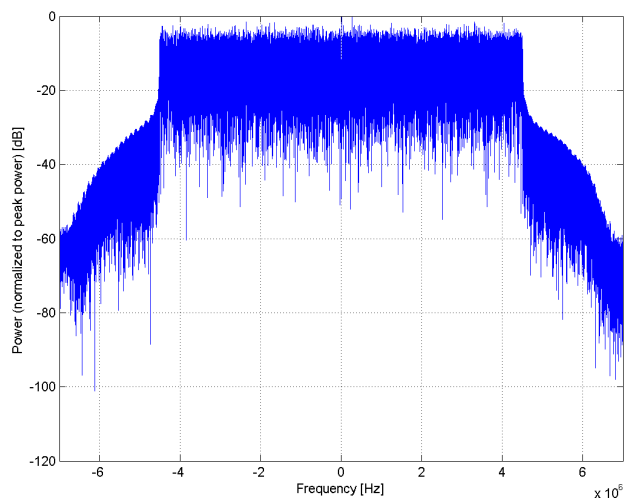
Name:	<b>LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)</b>
Group:	LTE-FDD
UID:	10431-AAD
PAR: <sup>1</sup>	<b>8.38 dB</b>
MIF: <sup>2</sup>	<b>-17.66 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz) Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz) Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz) Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz) Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz) Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz) Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz) Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz) Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1)
Bandwidth:	Bandwidth: 10MHz 10.0 MHz
Integration Time:	20.0 ms

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

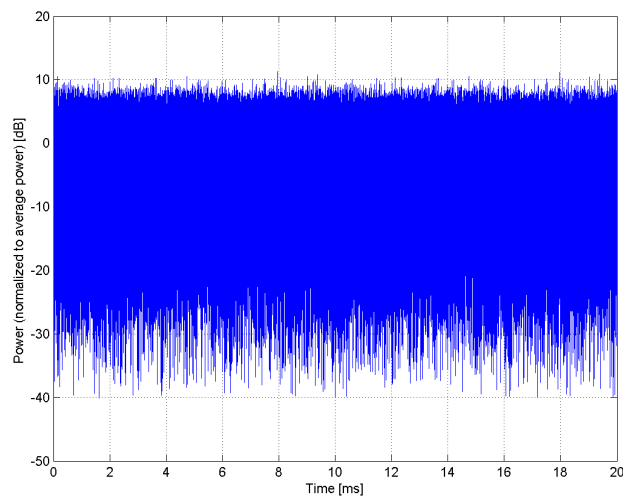
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



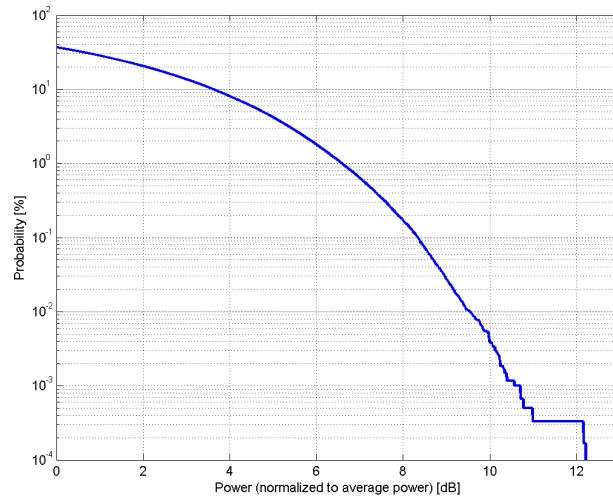
### Time Domain

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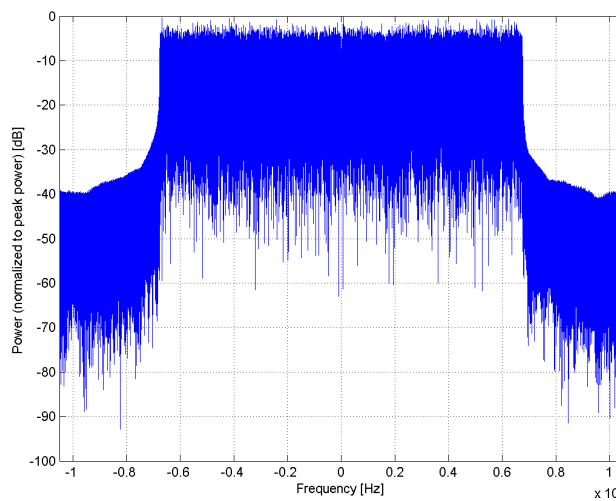
Name:	<b>LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)</b>
Group:	LTE-FDD
UID:	10432-AAC
PAR: <sup>1</sup>	<b>8.34 dB</b>
MIF: <sup>2</sup>	<b>-19.05 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz) Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1)
Bandwidth:	Bandwidth: 15MHz 15.0 MHz
Integration Time:	20.0 ms

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

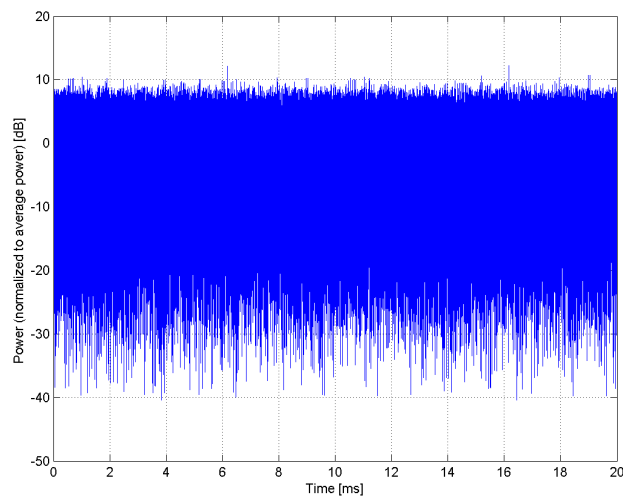
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

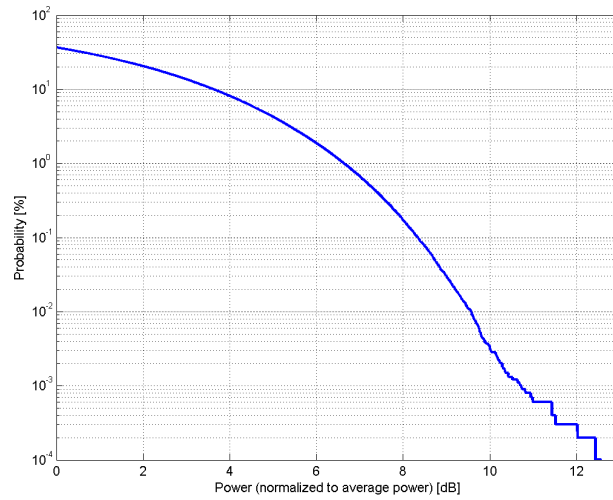


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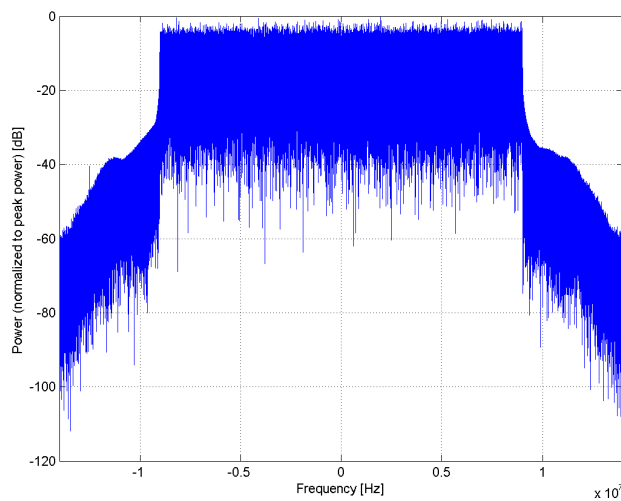
Name:	<b>LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)</b>
Group:	LTE-FDD
UID:	10433-AAC
PAR: <sup>1</sup>	<b>8.34 dB</b>
MIF: <sup>2</sup>	<b>-19.83 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1)
Bandwidth:	Bandwidth: 20MHz 20.0 MHz
Integration Time:	20.0 ms

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

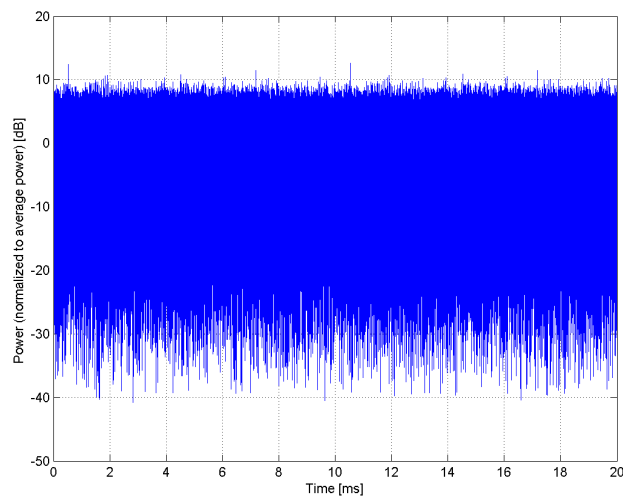
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain

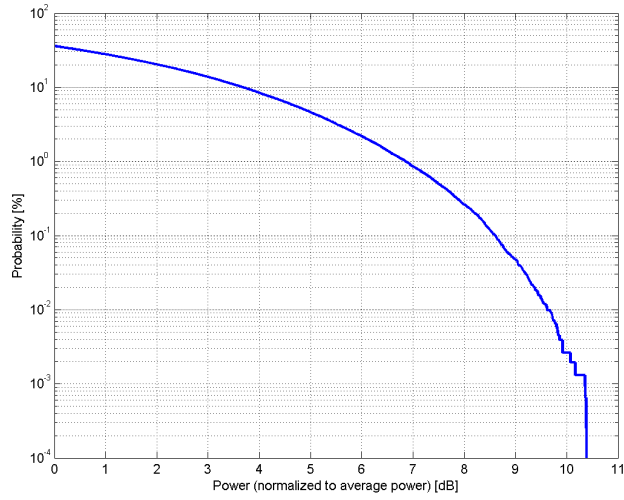


### Time Domain

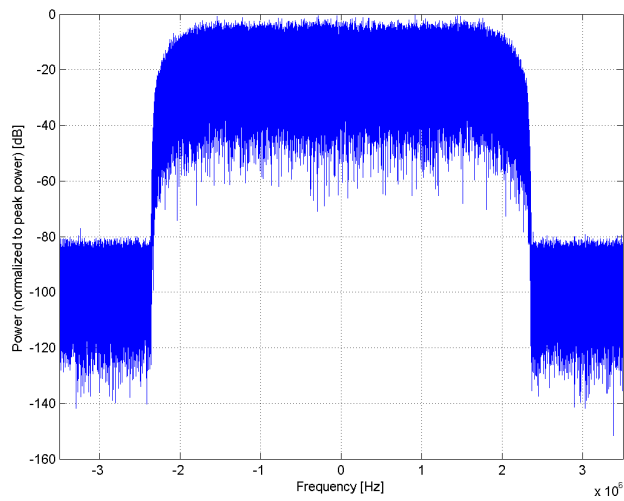
Name:	<b>W-CDMA (BS Test Model 1, 64 DPCH)</b>
Group:	WCDMA
UID:	10434-AAA
PAR: <sup>1</sup>	<b>8.60 dB</b>
MIF: <sup>2</sup>	<b>-16.44 dB</b>
Standard Reference:	TS 25.141
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, UTRA/FDD, Downlink (2110.0-2170.0 MHz, 20264) Band 2, UTRA/FDD, Downlink (1930.0-1990.0 MHz, 20265) Band 3, UTRA/FDD, Downlink (1805.0-1880.0 MHz, 20266) Band 4, UTRA/FDD, Downlink (2110.0-2155.0 MHz, 20267) Band 5, UTRA/FDD, Downlink (869.0-894.0 MHz, 20268) Band 6, UTRA/FDD, Downlink (875.0-885.0 MHz, 20269) Band 7, UTRA/FDD, Downlink (2620.0-2690.0 MHz, 20270) Band 8, UTRA/FDD, Downlink (925.0-960.0 MHz, 20271) Band 9, UTRA/FDD, Downlink (1844.9-1879.9 MHz, 20272) Band 10, UTRA/FDD, Downlink (2110.0-2170.0 MHz, 20273) Band 11, UTRA/FDD, Downlink (1475.9-1495.9 MHz, 20274) Band 12, UTRA/FDD, Downlink (729.0-749.0 MHz, 20275) Band 13, UTRA/FDD, Downlink (746.0-756.0 MHz, 20276) Band 14, UTRA/FDD, Downlink (758.0-768.0 MHz, 20277) Band 19, UTRA/FDD, Downlink (875.0-890.0 MHz, 20278) Band 20, UTRA/FDD, Downlink (791.0-821.0 MHz, 20279) Band 21, UTRA/FDD, Downlink (1495.9-1510.9 MHz, 20280) Band 22, UTRA/FDD, Downlink (3510.0-3590.0 MHz, 20281) Band 25, UTRA/FDD, Downlink (1930.0-1995.0 MHz, 20282) Band 26, UTRA/FDD, Downlink (859.0-894.0 MHz, 20283)
Detailed Specification:	WCDMA BS Test Model 1 DPCHx64
Bandwidth:	Single Carrier
Integration Time:	5.0 MHz
	10.0 ms

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

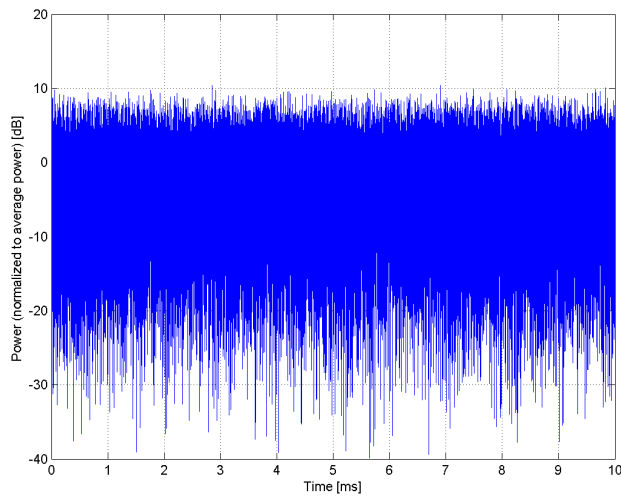
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



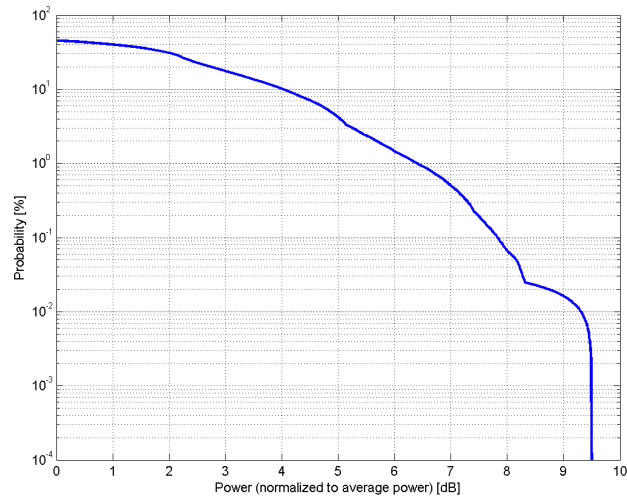
**Time Domain**

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Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

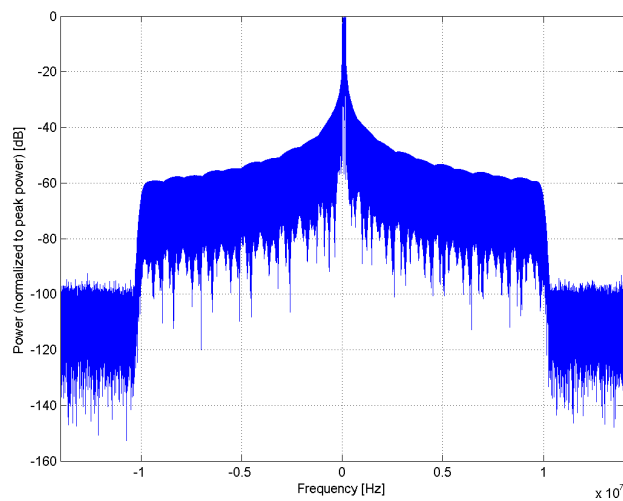
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10435-AAF
PAR: <sup>1</sup>	<b>7.82 dB</b>
MIF: <sup>2</sup>	<b>-3.41 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 50 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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

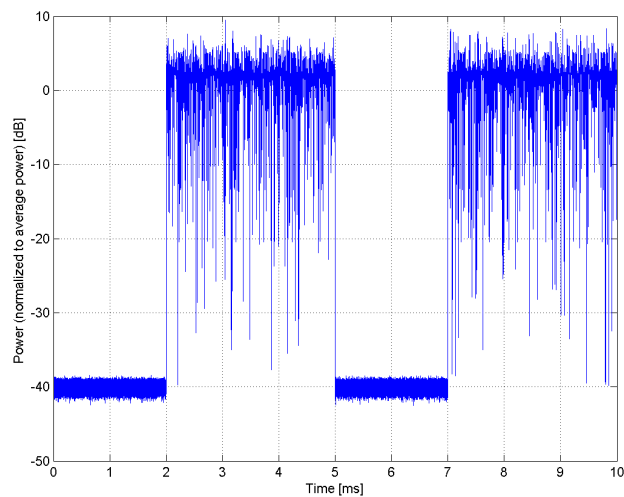
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



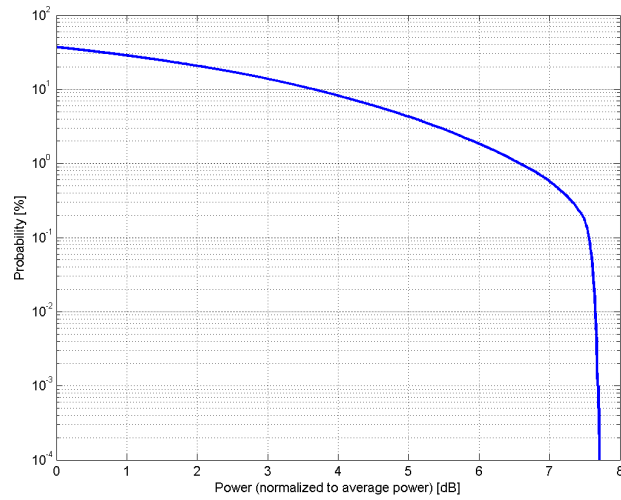
### Time Domain

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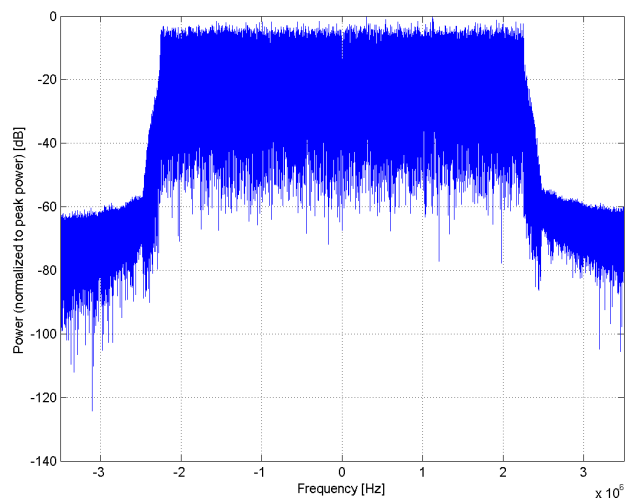
Name:	<b>LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)</b>
Group:	LTE-FDD
UID:	10447-AAD
PAR: <sup>1</sup>	<b>7.56 dB</b>
MIF: <sup>2</sup>	<b>-13.47 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz) Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz) Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz) Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz) Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz) Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz) Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz) Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz) Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz) Band 30, E-UTRA/FDD, Downlink (2350.0 - 2360.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz) Band 69, E-UTRA/FDD, Downlink (2570.0 - 2620.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 72, E-UTRA/FDD, Downlink (461.0 - 466.0 MHz) Band 73, E-UTRA/FDD, Downlink (460.0 - 465.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD, Downlink (1427.0 - 1432.0 MHz) Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 5MHz Clipping 44%
Bandwidth:	5.0 MHz
Integration Time:	20.0 ms

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

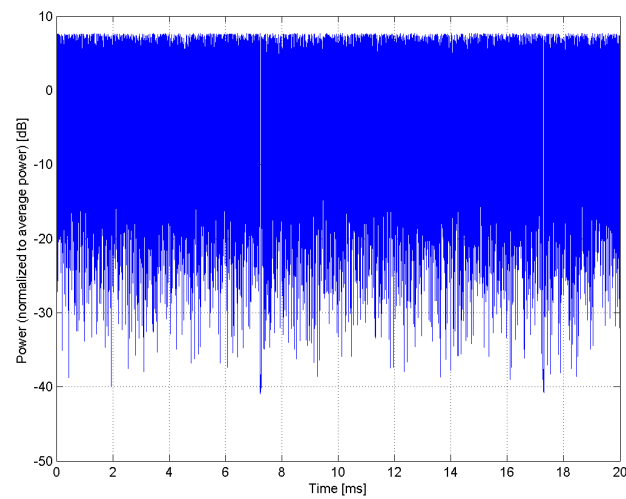
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

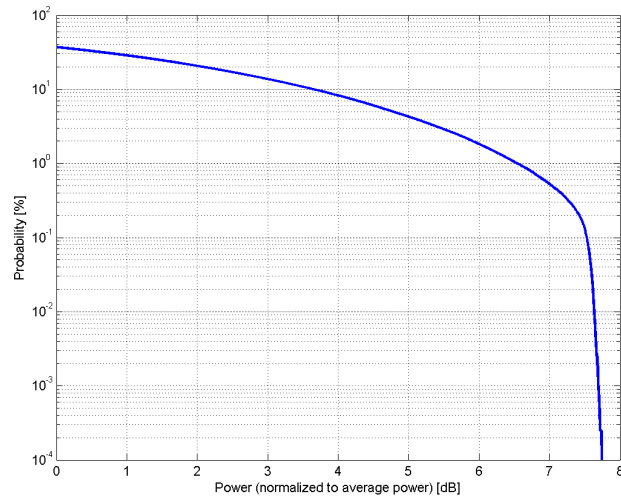


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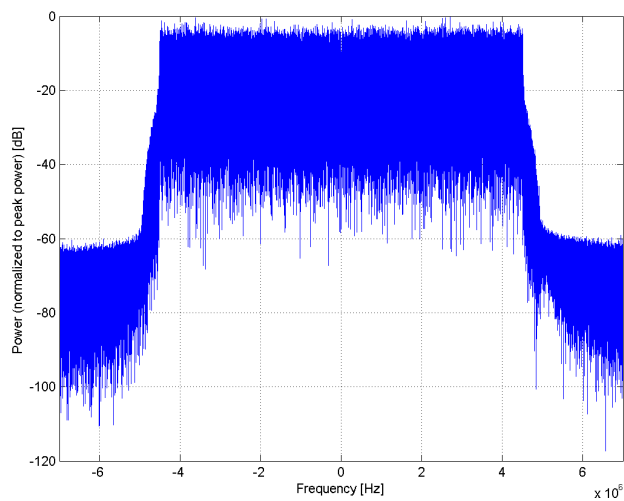
Name:	<b>LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)</b>
Group:	LTE-FDD
UID:	10448-AAD
PAR: <sup>1</sup>	<b>7.53 dB</b>
MIF: <sup>2</sup>	<b>-14.92 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 5, E-UTRA/FDD, Downlink (869.0 - 894.0 MHz) Band 6, E-UTRA/FDD, Downlink (875.0 - 885.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 8, E-UTRA/FDD, Downlink (925.0 - 960.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 11, E-UTRA/FDD, Downlink (1475.9 - 1495.9 MHz) Band 12, E-UTRA/FDD, Downlink (729.0 - 749.0 MHz) Band 13, E-UTRA/FDD, Downlink (746.0 - 756.0 MHz) Band 14, E-UTRA/FDD, Downlink (758.0 - 768.0 MHz) Band 17, E-UTRA/FDD, Downlink (734.0 - 746.0 MHz) Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz) Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 24, E-UTRA/FDD, Downlink (1525.0 - 1559.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz) Band 27, E-UTRA/FDD, Downlink (852.0 - 869.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 29, E-UTRA/FDD, Downlink (717.0 - 728.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Band 85, E-UTRA/FDD, Downlink (728.0 - 746.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 10MHz Clipping 44%
Bandwidth:	10.0 MHz
Integration Time:	20.0 ms

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

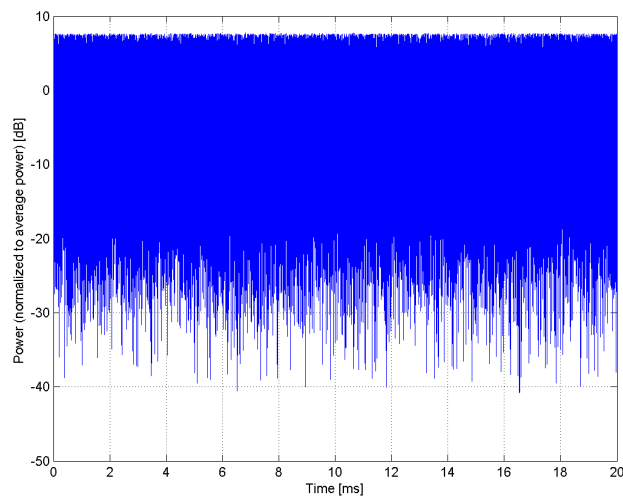
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



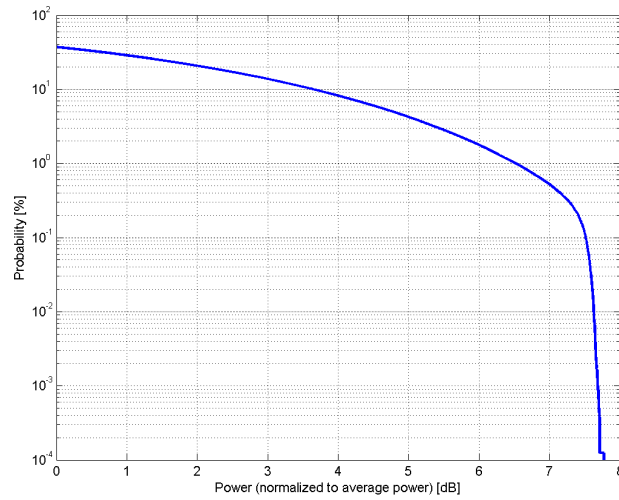
### Time Domain

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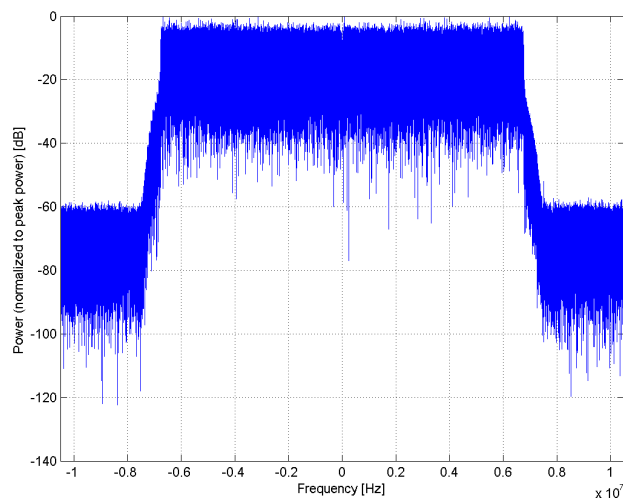
Name:	<b>LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)</b>
Group:	LTE-FDD
UID:	10449-AAC
PAR: <sup>1</sup>	<b>7.51 dB</b>
MIF: <sup>2</sup>	<b>-16.22 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 18, E-UTRA/FDD, Downlink (860.0 - 875.0 MHz) Band 19, E-UTRA/FDD, Downlink (875.0 - 890.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 21, E-UTRA/FDD, Downlink (1495.9 - 1510.9 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 26, E-UTRA/FDD, Downlink (859.0 - 894.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 68, E-UTRA/FDD, Downlink (753.0 - 783.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 15MHz Clipping 44%
Bandwidth:	15.0 MHz
Integration Time:	20.0 ms

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

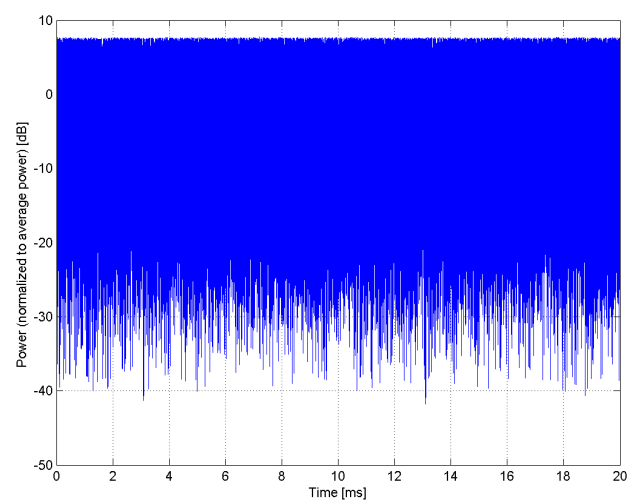
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



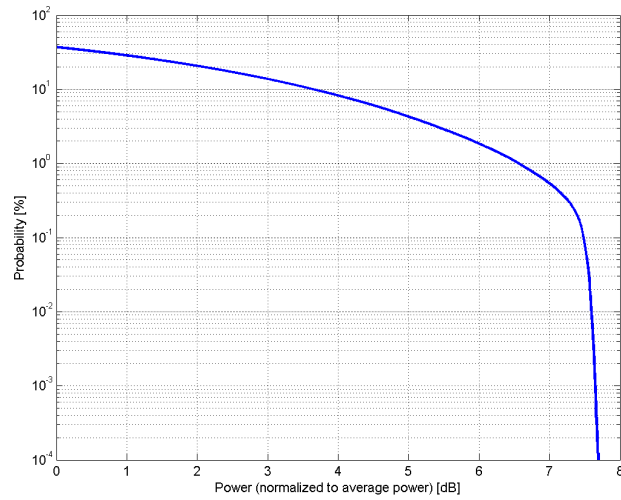
### Time Domain

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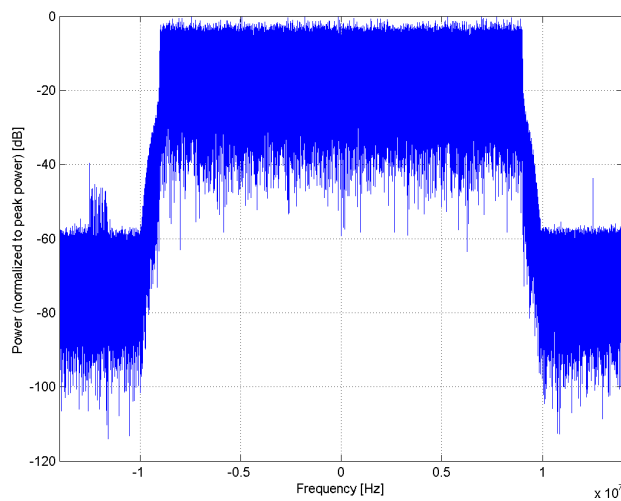
Name:	<b>LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)</b>
Group:	LTE-FDD
UID:	10450-AAC
PAR: <sup>1</sup>	<b>7.48 dB</b>
MIF: <sup>2</sup>	<b>-17.72 dB</b>
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (1930.0 - 1990.0 MHz) Band 3, E-UTRA/FDD, Downlink (1805.0 - 1880.0 MHz) Band 4, E-UTRA/FDD, Downlink (2110.0 - 2155.0 MHz) Band 7, E-UTRA/FDD, Downlink (2620.0 - 2690.0 MHz) Band 9, E-UTRA/FDD, Downlink (1844.9 - 1879.9 MHz) Band 10, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 20, E-UTRA/FDD, Downlink (791.0 - 821.0 MHz) Band 22, E-UTRA/FDD, Downlink (3510.0 - 3590.0 MHz) Band 23, E-UTRA/FDD, Downlink (2180.0 - 2200.0 MHz) Band 25, E-UTRA/FDD, Downlink (1930.0 - 1995.0 MHz) Band 28, E-UTRA/FDD, Downlink (758.0 - 803.0 MHz) Band 32, E-UTRA/FDD, Downlink (1452.0 - 1496.0 MHz) Band 65, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 66, E-UTRA/FDD, Downlink (2210.0 - 2220.0 MHz) Band 67, E-UTRA/FDD, Downlink (738.0 - 758.0 MHz) Band 70, E-UTRA/FDD, Downlink (1995.0 - 2020.0 MHz) Band 71, E-UTRA/FDD, Downlink (617.0 - 652.0 MHz) Band 74, E-UTRA/FDD, Downlink (1475.0 - 1518.0 MHz) Band 75, E-UTRA/FDD, Downlink (1432.0 - 1517.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 20MHz Clipping 44%
Bandwidth:	20.0 MHz
Integration Time:	20.0 ms

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

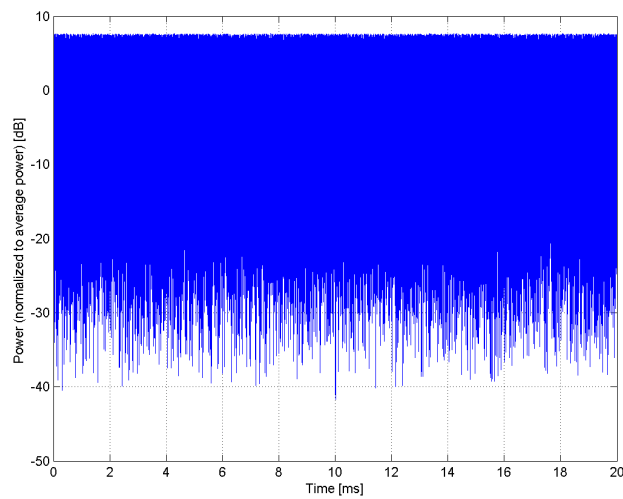
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



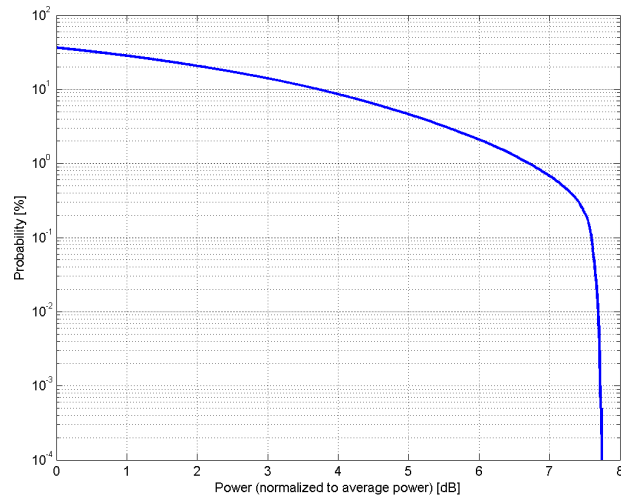
### Time Domain

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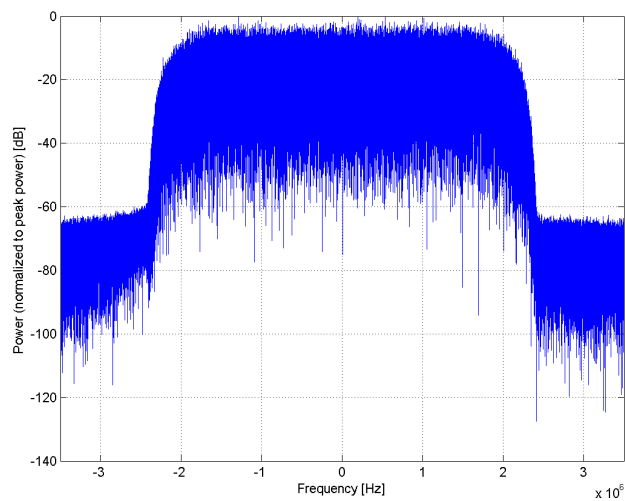
Name:	<b>W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44 %)</b>
Group:	WCDMA
UID:	10451-AAA
PAR: <sup>1</sup>	<b>7.59 dB</b>
MIF: <sup>2</sup>	<b>-12.93 dB</b>
Standard Reference:	TS 25.141
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, UTRA/FDD, Downlink (2110.0-2170.0 MHz, 20264) Band 2, UTRA/FDD, Downlink (1930.0-1990.0 MHz, 20265) Band 3, UTRA/FDD, Downlink (1805.0-1880.0 MHz, 20266) Band 4, UTRA/FDD, Downlink (2110.0-2155.0 MHz, 20267) Band 5, UTRA/FDD, Downlink (869.0-894.0 MHz, 20268) Band 6, UTRA/FDD, Downlink (875.0-885.0 MHz, 20269) Band 7, UTRA/FDD, Downlink (2620.0-2690.0 MHz, 20270) Band 8, UTRA/FDD, Downlink (925.0-960.0 MHz, 20271) Band 9, UTRA/FDD, Downlink (1844.9-1879.9 MHz, 20272) Band 10, UTRA/FDD, Downlink (2110.0-2170.0 MHz, 20273) Band 11, UTRA/FDD, Downlink (1475.9-1495.9 MHz, 20274) Band 12, UTRA/FDD, Downlink (729.0-749.0 MHz, 20275) Band 13, UTRA/FDD, Downlink (746.0-756.0 MHz, 20276) Band 14, UTRA/FDD, Downlink (758.0-768.0 MHz, 20277) Band 19, UTRA/FDD, Downlink (875.0-890.0 MHz, 20278) Band 20, UTRA/FDD, Downlink (791.0-821.0 MHz, 20279) Band 21, UTRA/FDD, Downlink (1495.9-1510.9 MHz, 20280) Band 22, UTRA/FDD, Downlink (3510.0-3590.0 MHz, 20281) Band 25, UTRA/FDD, Downlink (1930.0-1995.0 MHz, 20282) Band 26, UTRA/FDD, Downlink (859.0-894.0 MHz, 20283)
Detailed Specification:	WCDMA BS Test Model 1 DPCHx64 Single Carrier Clipping 44 %
Bandwidth:	5.0 MHz
Integration Time:	20.0 ms

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

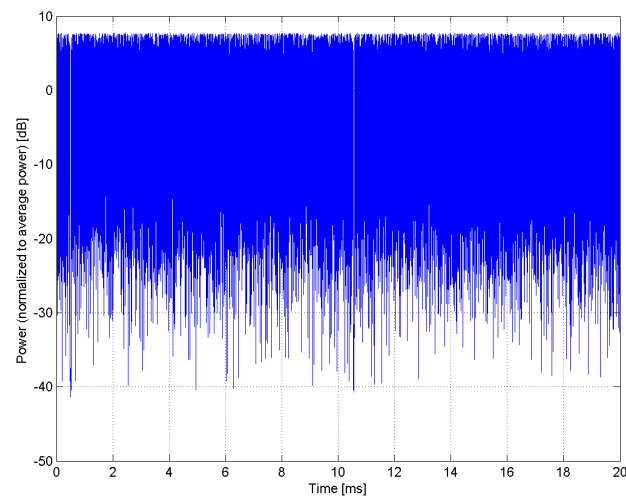
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

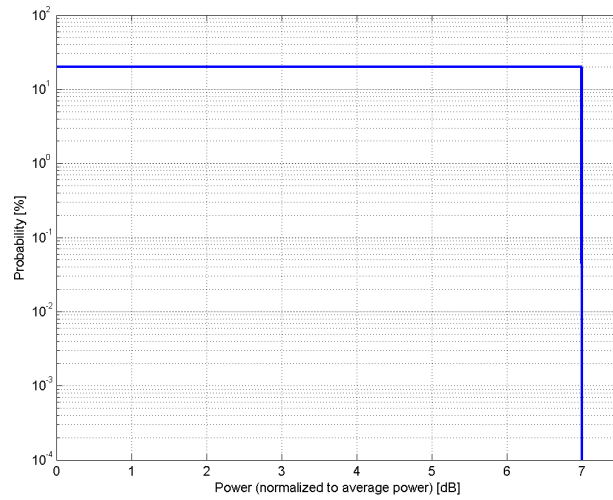


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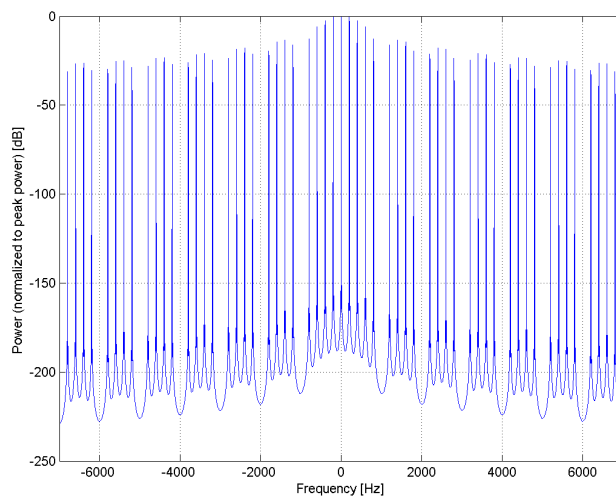
Name:	<b>MRI (Square, 5ms, 1ms)</b>
Group:	MRI
UID:	10452-AAC
PAR: <sup>1</sup>	<b>6.99 dB</b>
MIF: <sup>2</sup>	<b>1.54 dB</b>
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS) Pulse Shape: rectangular Repetition Rate: 200 Hz Duty Cycle: 20%
Bandwidth:	0.0 MHz
Integration Time:	5.0 ms

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

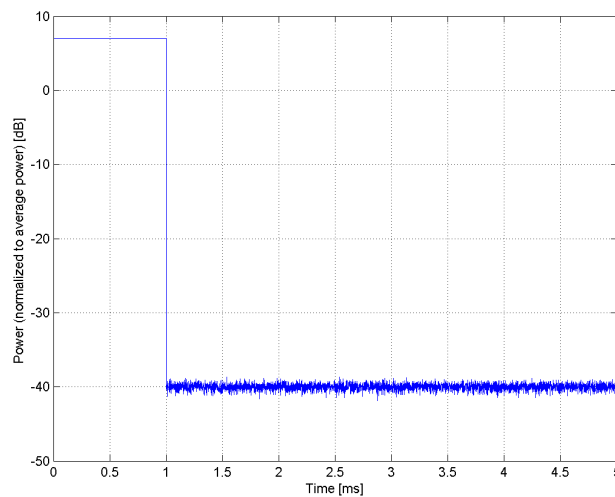
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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Name: **Validation (Square, 10ms, 1ms)**

Group: Test  
UID: 10453-AAD

PAR: <sup>1</sup> **10.00 dB**  
MIF: <sup>2</sup> **3.94 dB**

Standard Reference: SPEAG  
Category: Random amplitude modulation  
Modulation: AM  
Frequency Band: MRI 1.5T (59.0 - 69.0 MHz)  
MRI 3T (123.0 - 133.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

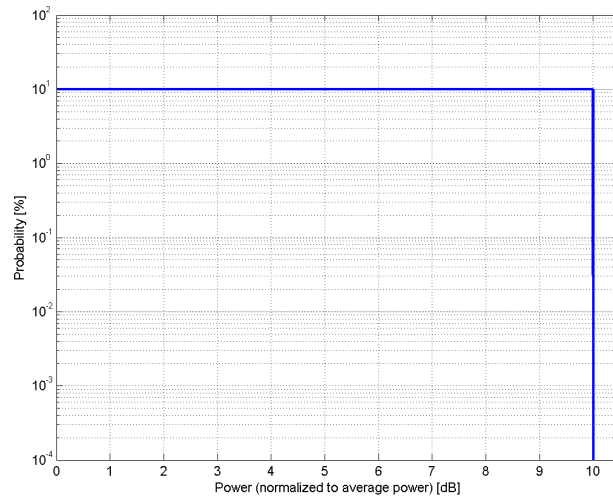
Detailed Specification: Calibration Sequence for Medical Implant Test System (MITS)  
Pulse Shape: rectangular  
Repetition Rate: 100 Hz  
Duty Cycle: 10%

Bandwidth: 0.0 MHz  
Integration Time: 10.0 ms

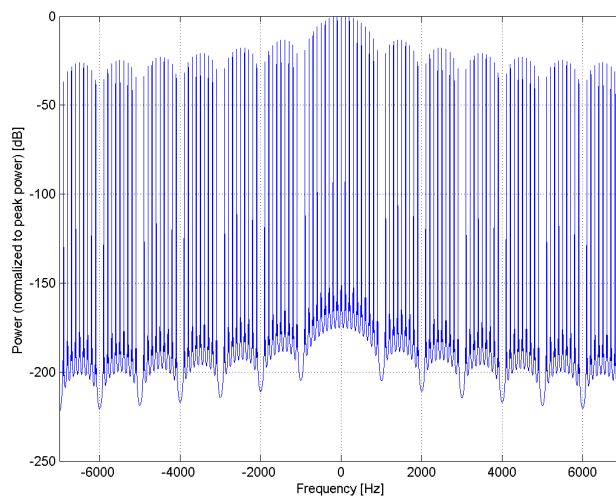
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<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"

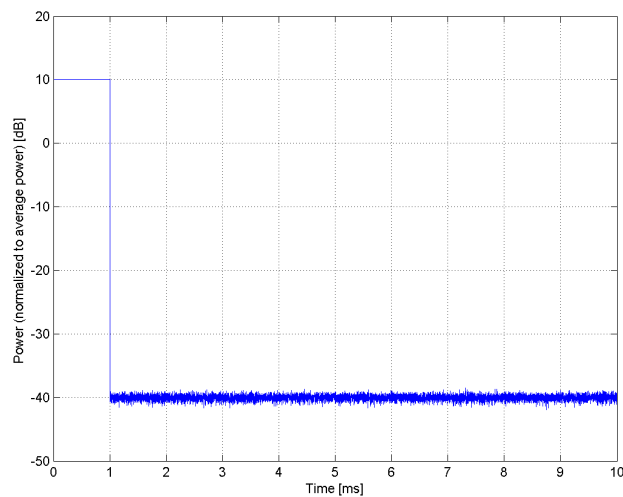
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



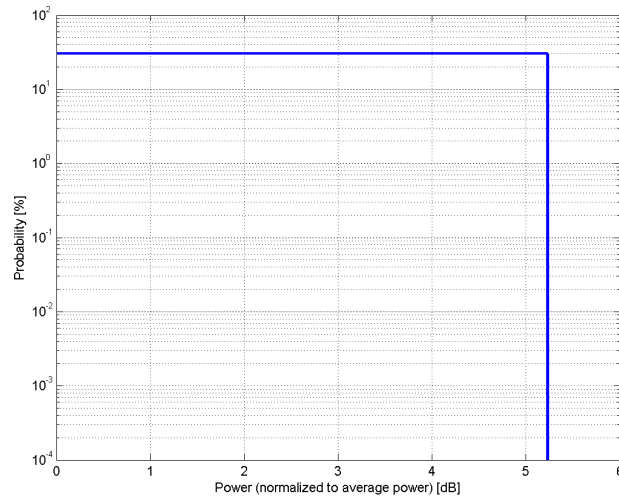
### Time Domain

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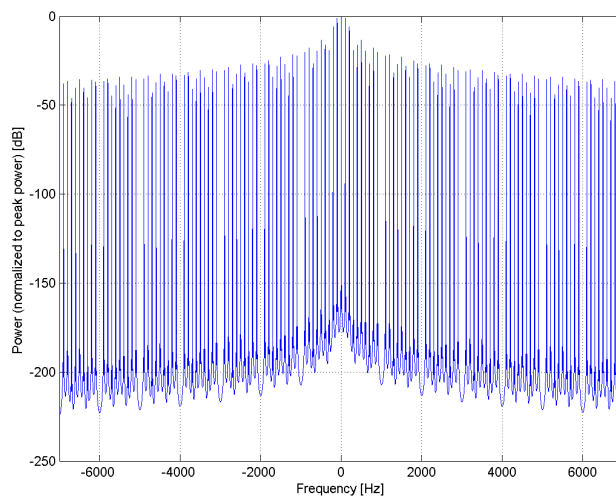
Name:	<b>MRI (Square, 10ms, 3ms)</b>
Group:	MRI
UID:	10454-AAC
PAR: <sup>1</sup>	<b>5.23 dB</b>
MIF: <sup>2</sup>	<b>-1.39 dB</b>
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS) Pulse Shape: rectangular Repetition Rate: 100 Hz Duty Cycle: 30%
Bandwidth:	0.0 MHz
Integration Time:	10.0 ms

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

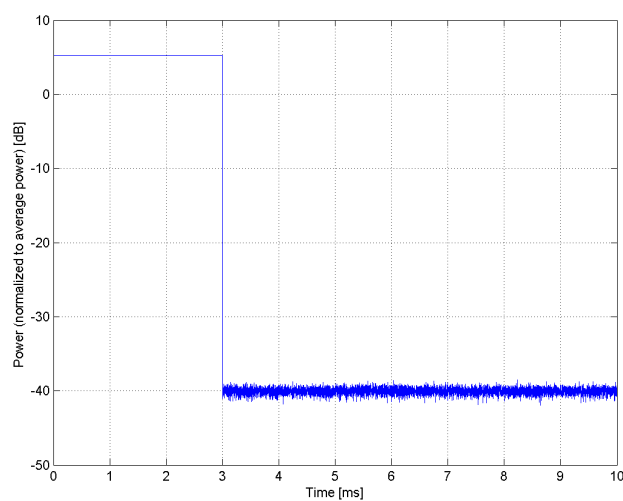
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



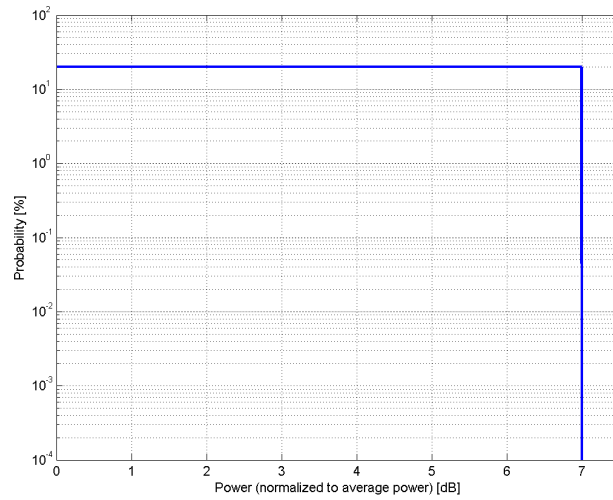
### Time Domain

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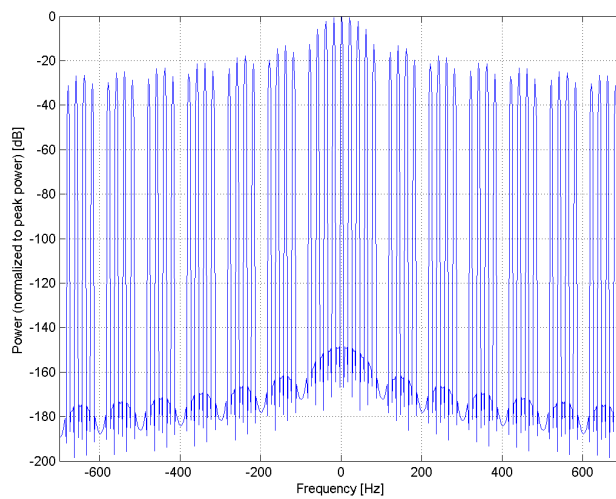
Name:	<b>MRI (Square, 50ms, 10ms)</b>
Group:	MRI
UID:	10455-AAC
PAR: <sup>1</sup>	<b>6.99 dB</b>
MIF: <sup>2</sup>	<b>-1.16 dB</b>
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS) Pulse Shape: rectangular Repetition Rate: 20 Hz Duty Cycle: 20%
Bandwidth:	0.0 MHz
Integration Time:	50.0 ms

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

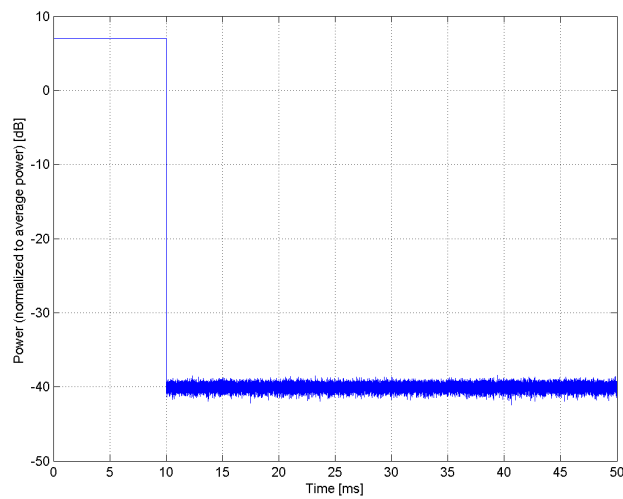
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

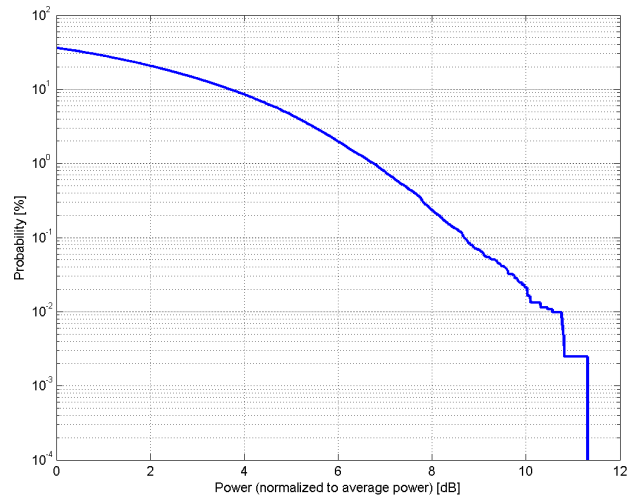


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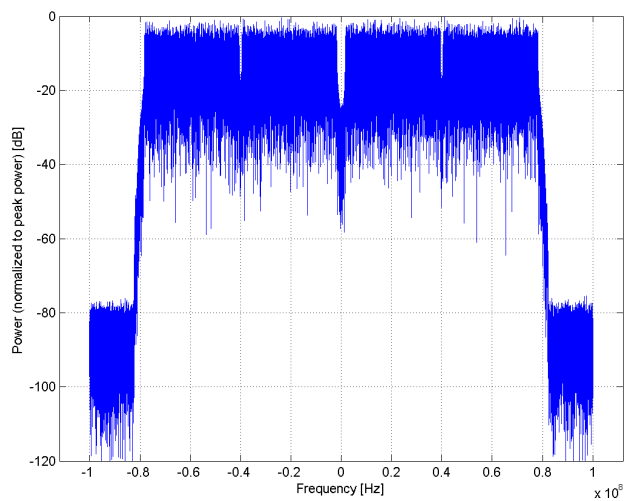
Name:	<b>IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)</b>
Group:	WLAN
UID:	10456-AAB
PAR: <sup>1</sup>	<b>8.63 dB</b>
MIF: <sup>2</sup>	<b>-14.83 dB</b>
Standard Reference:	IEEE 802.11-2013
Category:	FCC OET KDB 248227 D01 802.11 Wi-Fi SAR v02r01 Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) 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:	Bandwidth: 160MHz Duty cycle: 99% MCS: 5 Number of spatial streams: 1 MPDU length: 32768
Bandwidth:	160.0 MHz
Integration Time:	0.6 ms

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

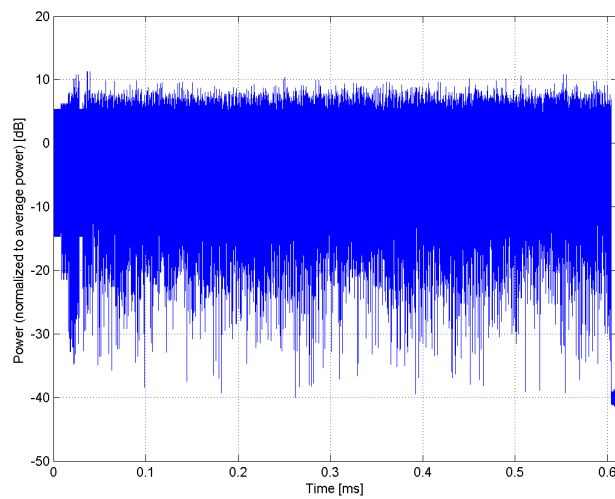
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



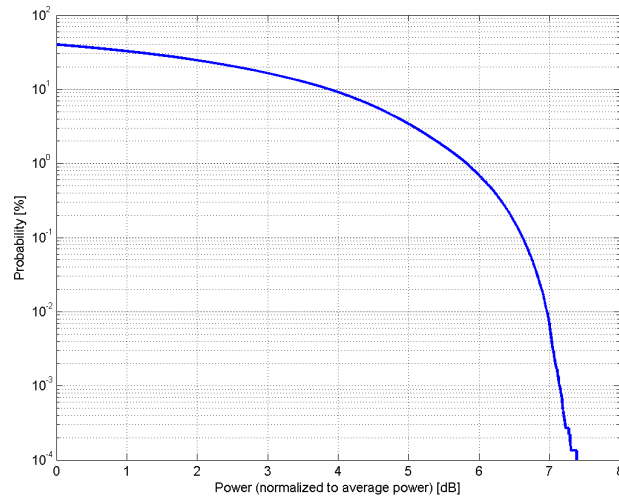
### Time Domain

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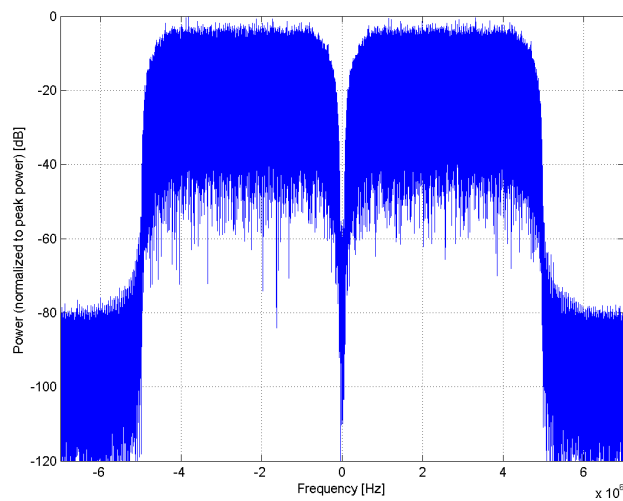
Name:	<b>UMTS-FDD (DC-HSDPA)</b>
Group:	WCDMA
UID:	10457-AAA
PAR: <sup>1</sup>	<b>6.62 dB</b>
MIF: <sup>2</sup>	<b>-21.09 dB</b>
Standard Reference:	FCC OET KDB 941225 D01 SAR test for 3G devices v03
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, UTRA/FDD (1920.0-1980.0 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:	Dual Carrier HSDPA
Bandwidth:	10.0 MHz
Integration Time:	97.1 ms

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

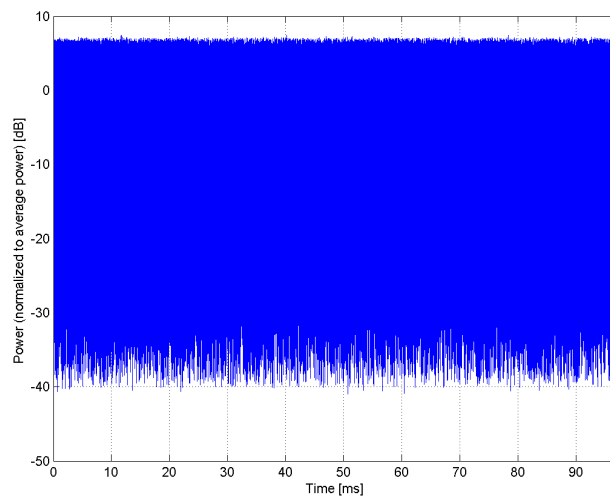
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



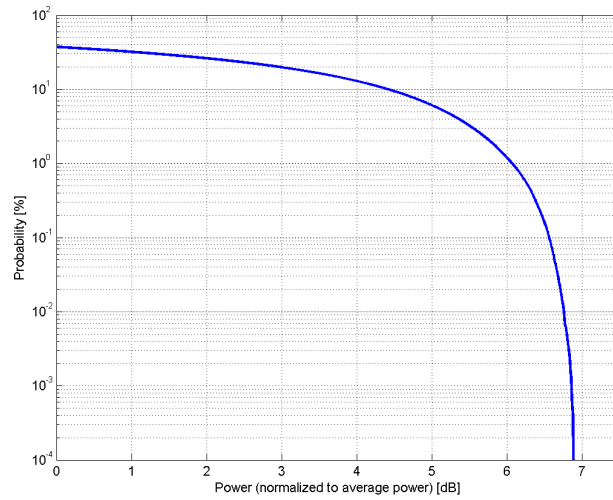
### Time Domain

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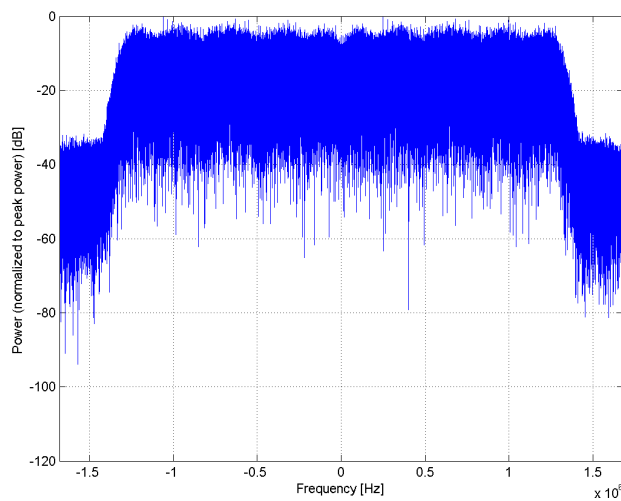
Name:	<b>CDMA2000 (1xEV-DO, Rev. B, 2 carriers)</b>
Group:	CDMA2000
UID:	10458-AAA
PAR: <sup>1</sup>	<b>6.55 dB</b>
MIF: <sup>2</sup>	<b>-18.92 dB</b>
Standard Reference:	FCC OET KDB 941225 D01 SAR test for 3G devices v03
Category:	Random amplitude modulation
Modulation:	Q2
Frequency Band:	Band Class 0 (815.0-849.0 MHz, 20220) Band Class 1 (1850.0-1910.0 MHz, 20040) Band Class 2 (872.0-915.0 MHz, 20041) Band Class 3 (887.0-925.0 MHz, 20042) Band Class 4 (1750.0-1780.0 MHz, 20043) Band Class 5 (411.7-483.5 MHz, 20044) Band Class 6 (1920.0-1980.0 MHz, 20045) Band Class 7 (776.0-794.0 MHz, 20046) Band Class 8 (1710.0-1785.0 MHz, 20047) Band Class 9 (880.0-915.0 MHz, 20048) Band Class 10 (806.0-901.0 MHz, 20049) Band Class 11 (410.0-462.5 MHz, 20050) Band Class 12 (870.0-876.0 MHz, 20051) Band Class 13 (2500.0-2570.0 MHz, 20179) Band Class 14 (1850.0-1915.0 MHz, 20180) Band Class 15 (1710.0-1755.0 MHz, 20181) Band Class 16 (2502.0-2568.0 MHz, 20182) Band Class 18 (787.0-799.0 MHz, 20184) Band Class 19 (698.0-716.0 MHz, 20185) Band Class 20 (1626.5-1660.5 MHz, 20186) Band Class 21 (2000.0-2020.0 MHz, 20187)
Detailed Specification:	Physical Layer Configuration: Subtype 2 Reverse Data Channel Payload Size: 4096 bits, termination target of 16 slots Forward Traffic Channel: 2-slot version of 307.2kbps, ACK channel transmitting in all slots Access Terminal Power Control: "All bits up"
Bandwidth:	2.4 MHz
Integration Time:	95.2 ms

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

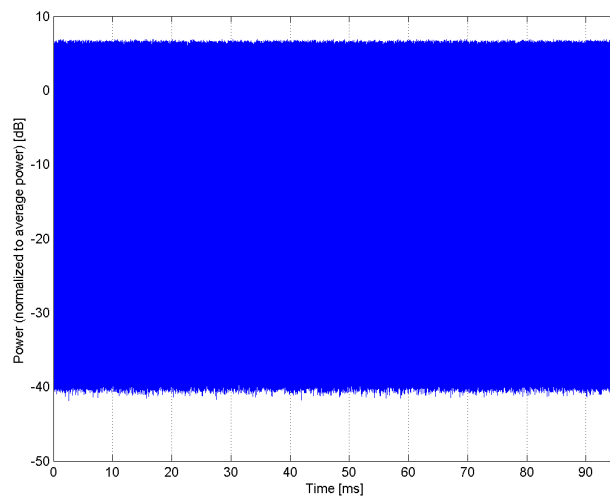
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



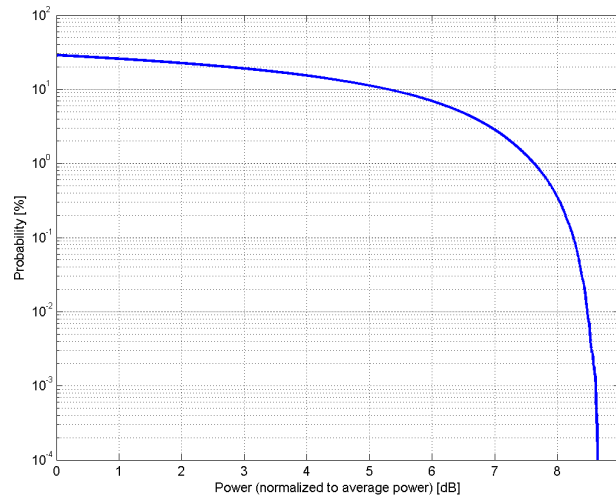
### Time Domain

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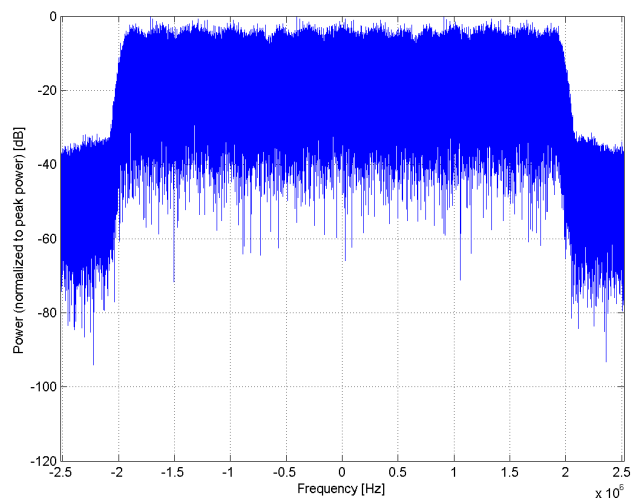
Name:	<b>CDMA2000 (1xEV-DO, Rev. B, 3 carriers)</b>
Group:	CDMA2000
UID:	10459-AAA
PAR: <sup>1</sup>	<b>8.25 dB</b>
MIF: <sup>2</sup>	<b>-19.19 dB</b>
Standard Reference:	FCC OET KDB 941225 D01 SAR test for 3G devices v03
Category:	Random amplitude modulation
Modulation:	Q2
Frequency Band:	Band Class 0 (815.0-849.0 MHz, 20220) Band Class 1 (1850.0-1910.0 MHz, 20040) Band Class 2 (872.0-915.0 MHz, 20041) Band Class 3 (887.0-925.0 MHz, 20042) Band Class 4 (1750.0-1780.0 MHz, 20043) Band Class 5 (411.7-483.5 MHz, 20044) Band Class 6 (1920.0-1980.0 MHz, 20045) Band Class 7 (776.0-794.0 MHz, 20046) Band Class 8 (1710.0-1785.0 MHz, 20047) Band Class 9 (880.0-915.0 MHz, 20048) Band Class 10 (806.0-901.0 MHz, 20049) Band Class 11 (410.0-462.5 MHz, 20050) Band Class 12 (870.0-876.0 MHz, 20051) Band Class 13 (2500.0-2570.0 MHz, 20179) Band Class 14 (1850.0-1915.0 MHz, 20180) Band Class 15 (1710.0-1755.0 MHz, 20181) Band Class 16 (2502.0-2568.0 MHz, 20182) Band Class 18 (787.0-799.0 MHz, 20184) Band Class 19 (698.0-716.0 MHz, 20185) Band Class 20 (1626.5-1660.5 MHz, 20186) Band Class 21 (2000.0-2020.0 MHz, 20187)
Detailed Specification:	Physical Layer Configuration: Subtype 2 Reverse Data Channel Payload Size: 4096 bits, termination target of 16 slots Forward Traffic Channel: 2-slot version of 307.2kbps, ACK channel transmitting in all slots Access Terminal Power Control: "All bits up"
Bandwidth:	3.6 MHz
Integration Time:	95.2 ms

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

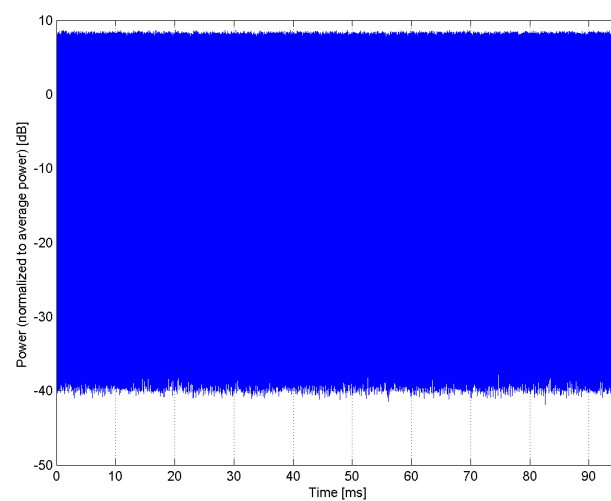
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

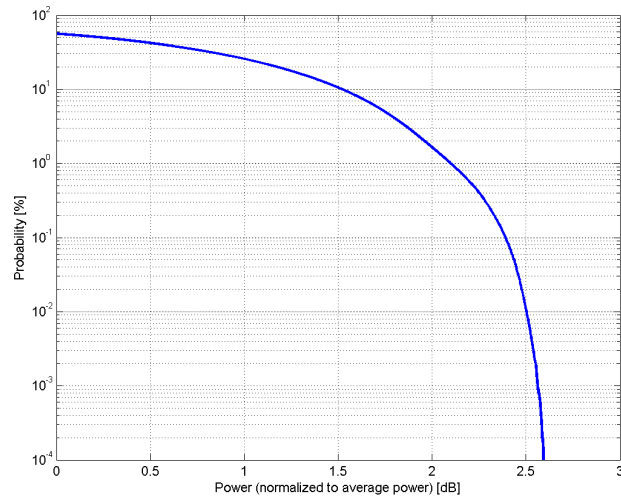


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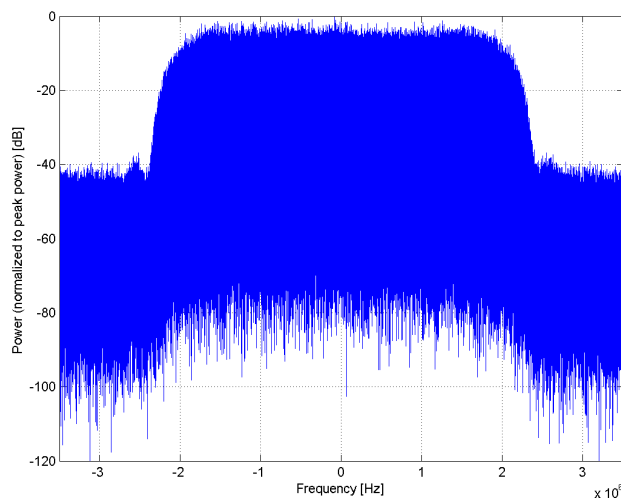
Name:	<b>UMTS-FDD (WCDMA, AMR)</b>
Group:	WCDMA
UID:	10460-AAA
PAR: <sup>1</sup>	<b>2.39 dB</b>
MIF: <sup>2</sup>	<b>-25.43 dB</b>
Standard Reference:	FCC OET KDB 941225 D01 SAR test for 3G devices v03
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, UTRA/FDD (1920.0-1980.0 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: 12.2 kbps AMR 3.4 kbps SRB
Bandwidth:	5.0 MHz
Integration Time:	100.0 ms

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

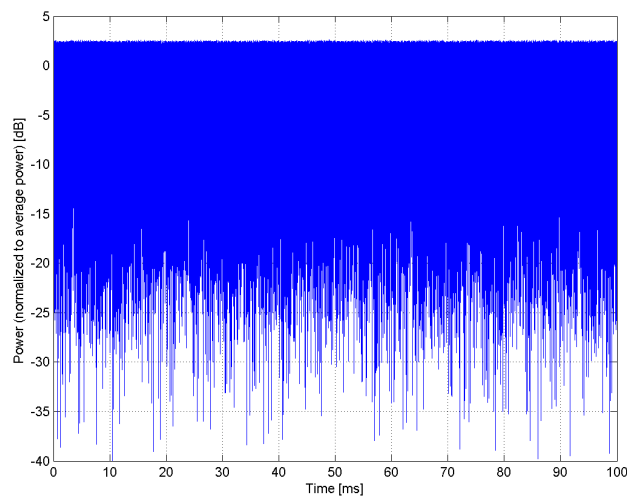
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



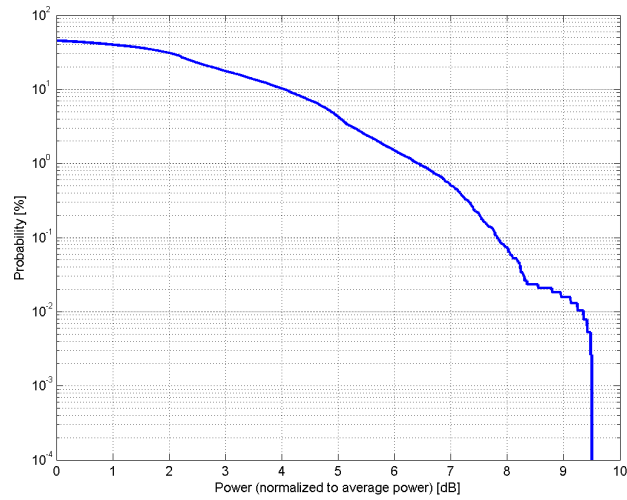
### Time Domain

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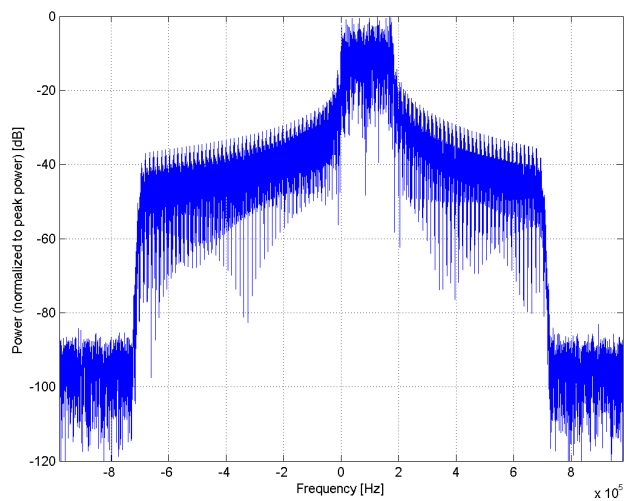
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10461-AAB
PAR: <sup>1</sup>	<b>7.82 dB</b>
MIF: <sup>2</sup>	<b>-3.41 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 3 Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

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

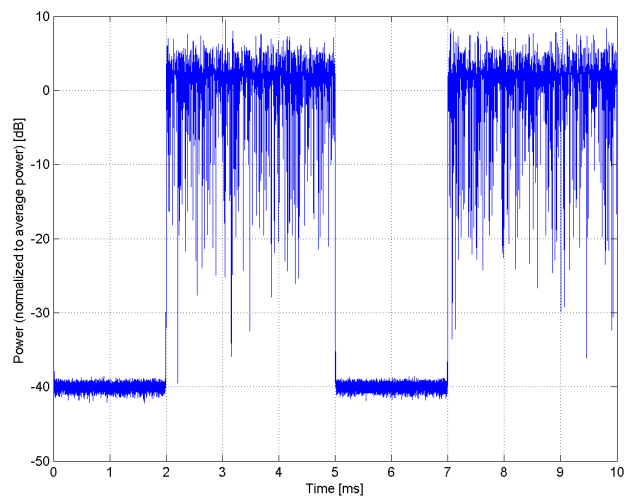
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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Name: **LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10462-AAB

PAR:<sup>1</sup> **8.30 dB**  
MIF:<sup>2</sup> **-3.17 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

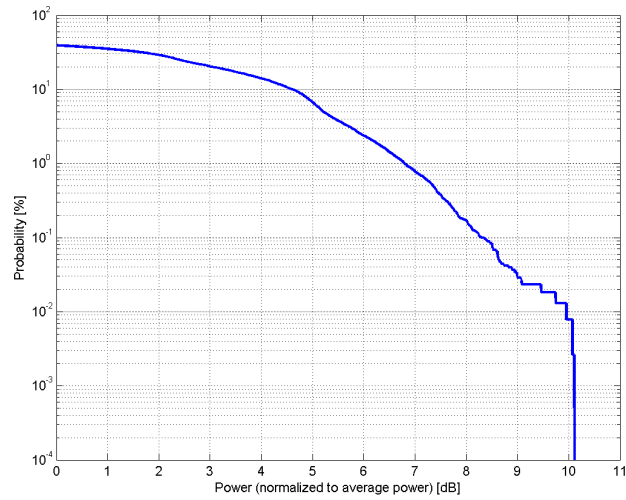
Category: Random amplitude modulation  
Modulation: 16-QAM  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 3  
Data Type: PN9fix

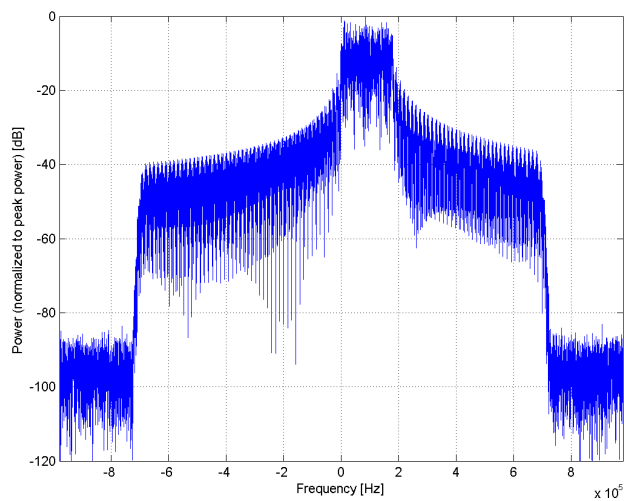
Bandwidth: 1.4 MHz  
Integration Time: 10.0 ms

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

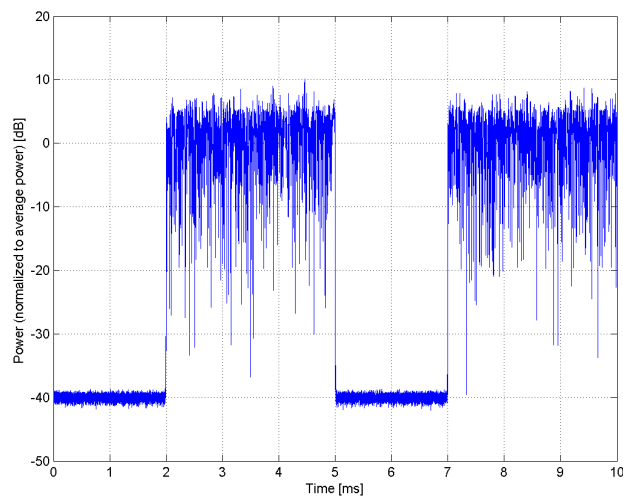
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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Name: **LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10463-AAB

PAR: <sup>1</sup> **8.56 dB**  
MIF: <sup>2</sup> **-3.31 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

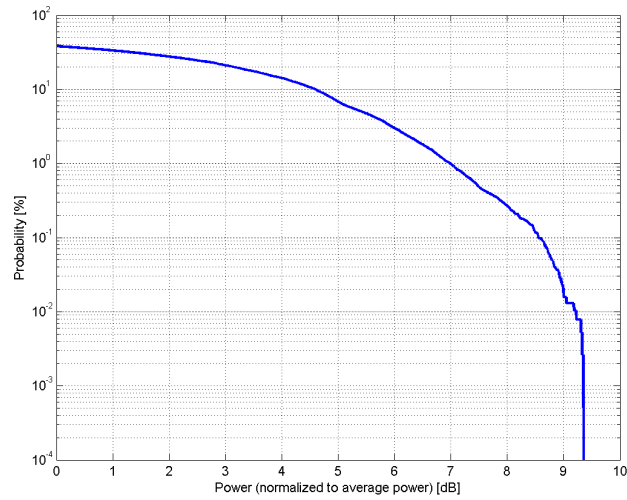
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 3  
Data Type: PN9fix

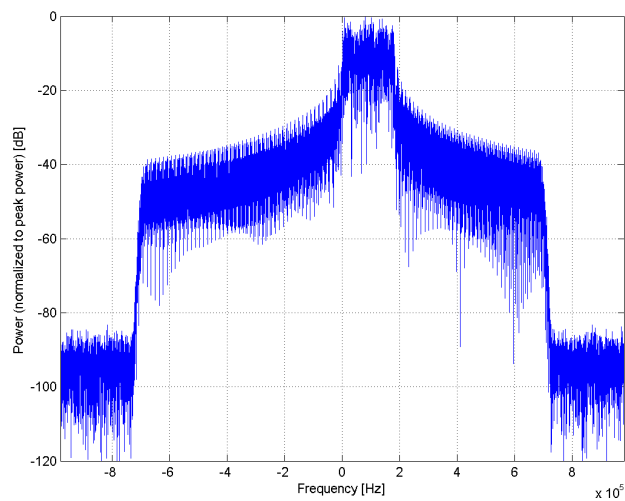
Bandwidth: 1.4 MHz  
Integration Time: 10.0 ms

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

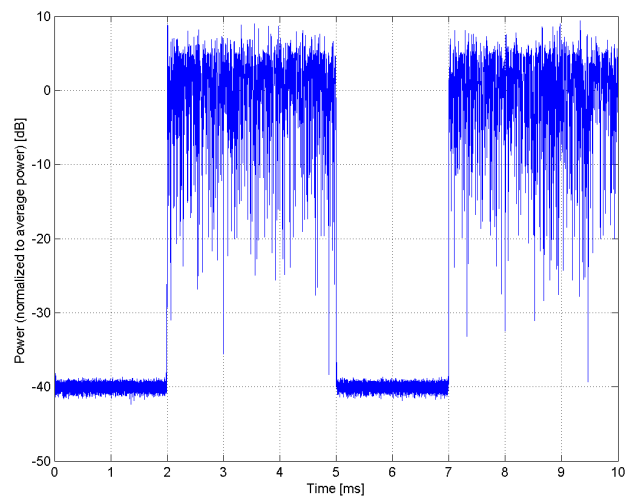
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain



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

Name: **LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10464-AAC

PAR: <sup>1</sup> **7.82 dB**  
MIF: <sup>2</sup> **-3.41 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

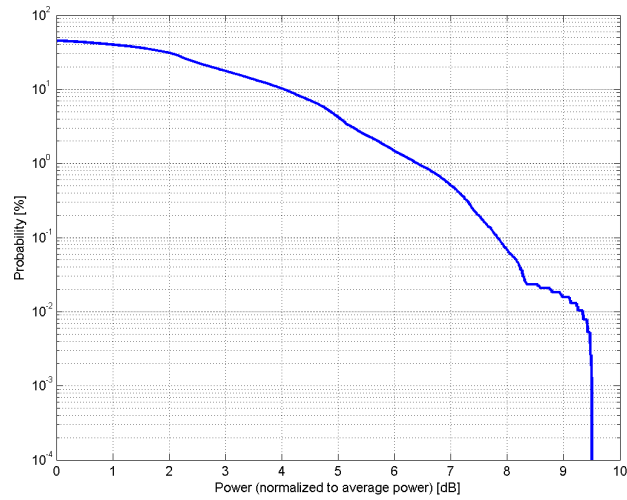
Category: Random amplitude modulation  
Modulation: QPSK  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 7  
Data Type: PN9fix

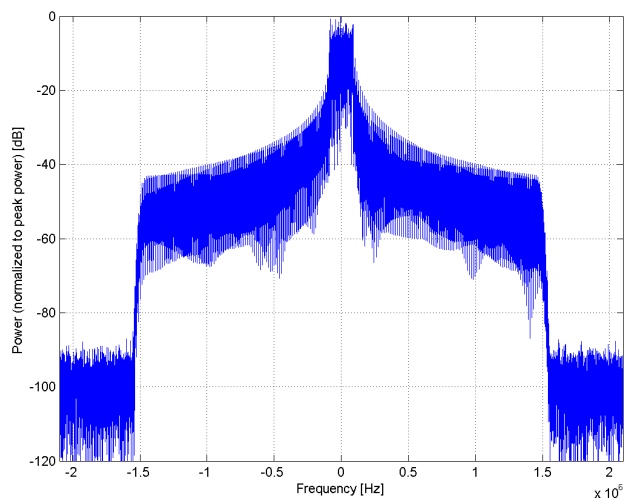
Bandwidth: 3.0 MHz  
Integration Time: 10.0 ms

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

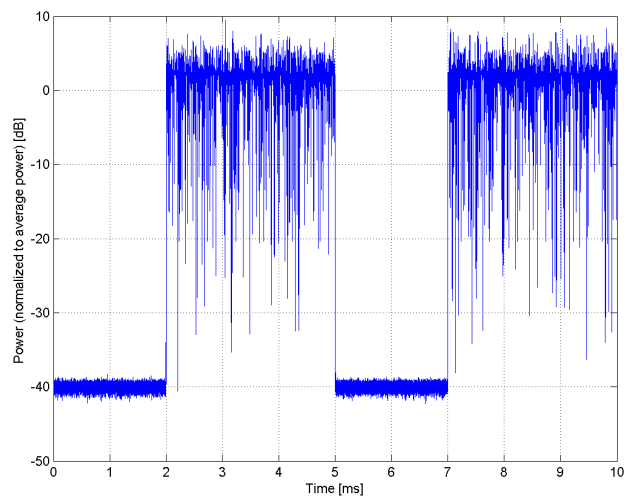
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name: **LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10465-AAC

PAR: <sup>1</sup> **8.32 dB**  
MIF: <sup>2</sup> **-3.18 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

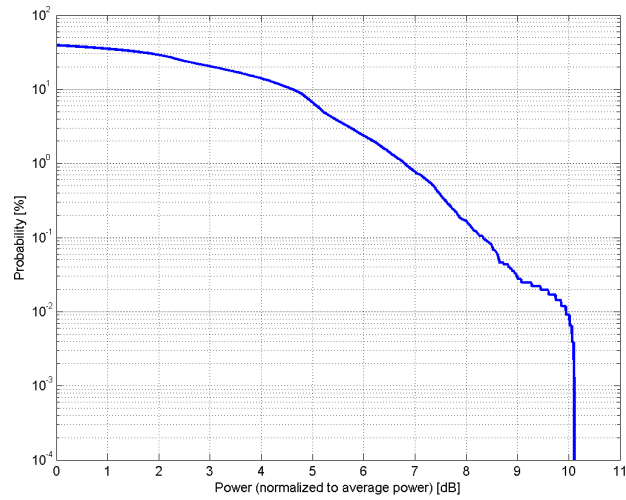
Category: Random amplitude modulation  
Modulation: 16-QAM  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 7  
Data Type: PN9fix

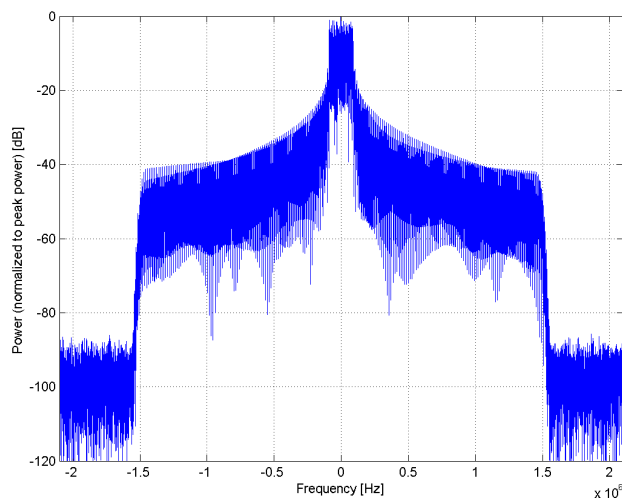
Bandwidth: 3.0 MHz  
Integration Time: 10.0 ms

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

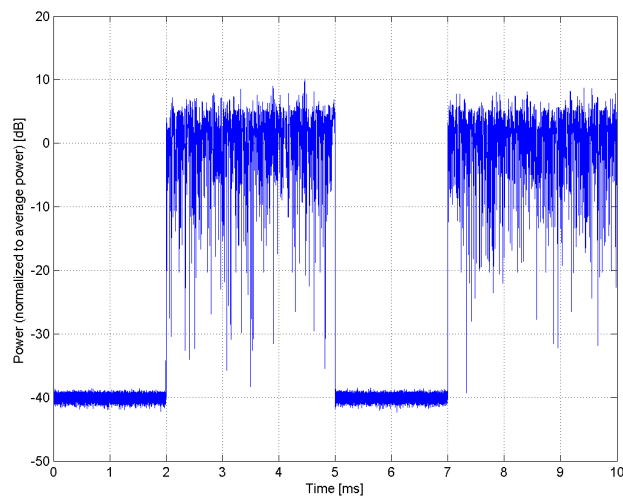
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name: **LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10466-AAC

PAR: <sup>1</sup> **8.57 dB**  
MIF: <sup>2</sup> **-3.31 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

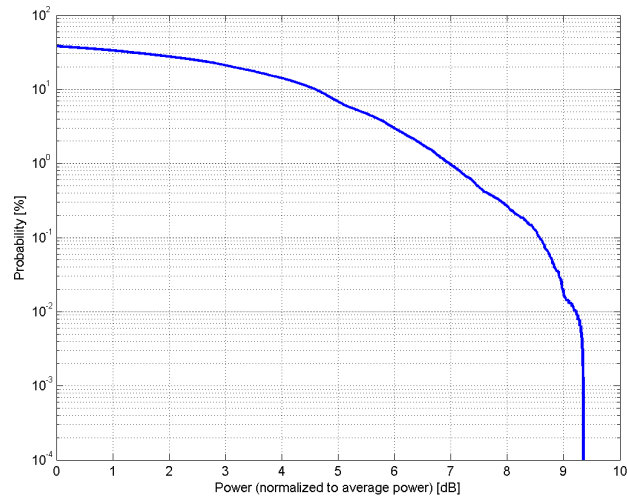
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 7  
Data Type: PN9fix

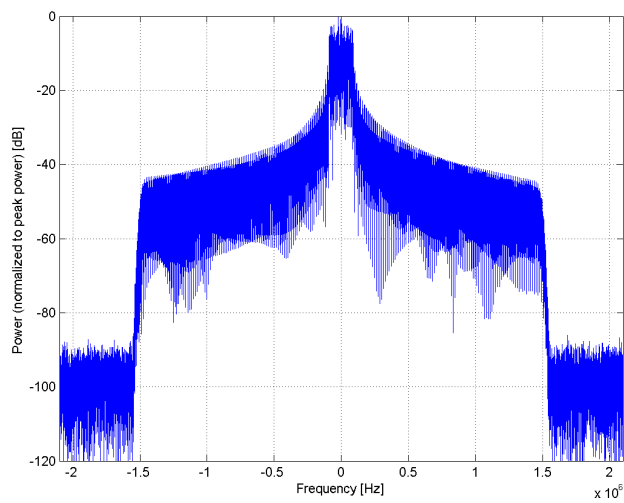
Bandwidth: 3.0 MHz  
Integration Time: 10.0 ms

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

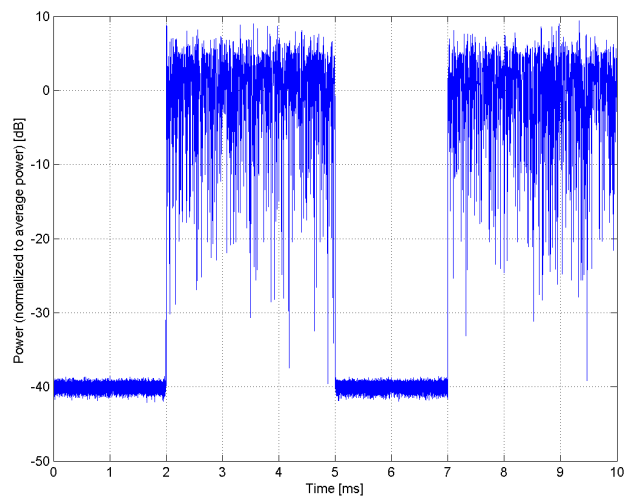
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



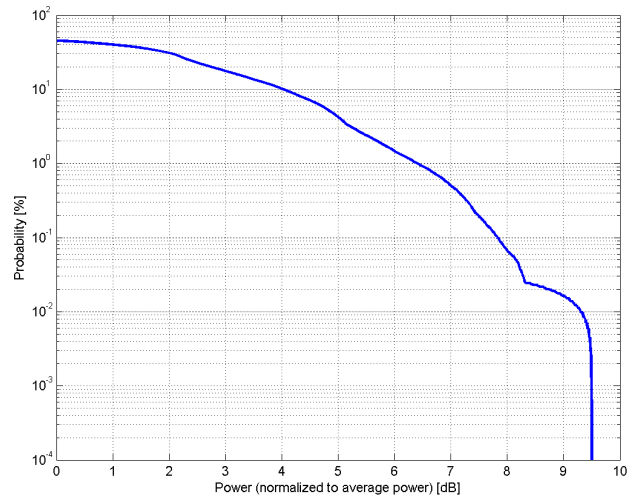
### Time Domain

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Engineering AG**  
Zeughausstrasse 43, 8004 Zurich, Switzerland

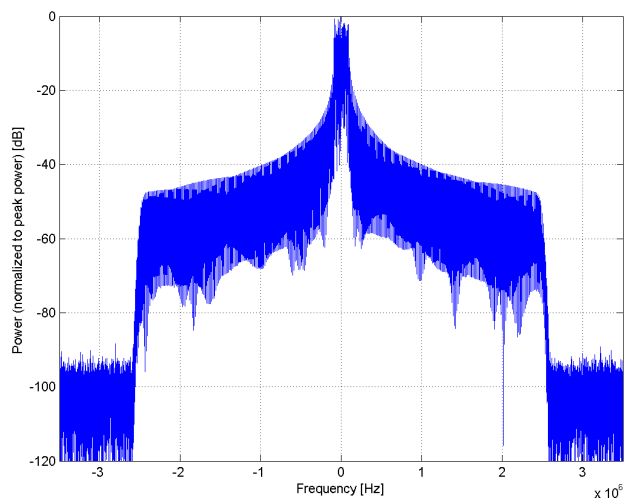
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10467-AAF
PAR: <sup>1</sup>	<b>7.82 dB</b>
MIF: <sup>2</sup>	<b>-3.41 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz) Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 12 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

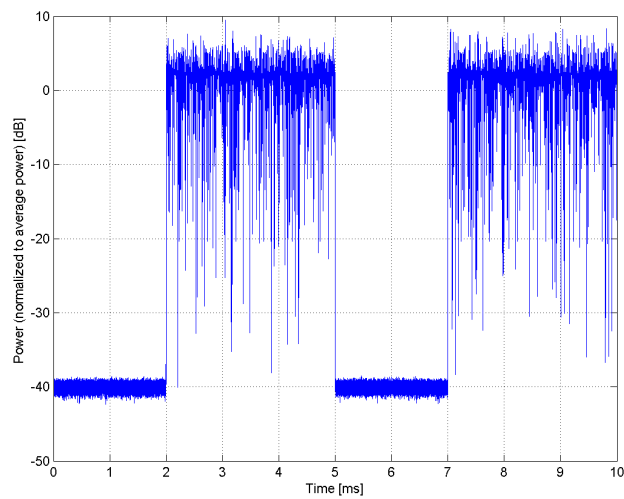
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

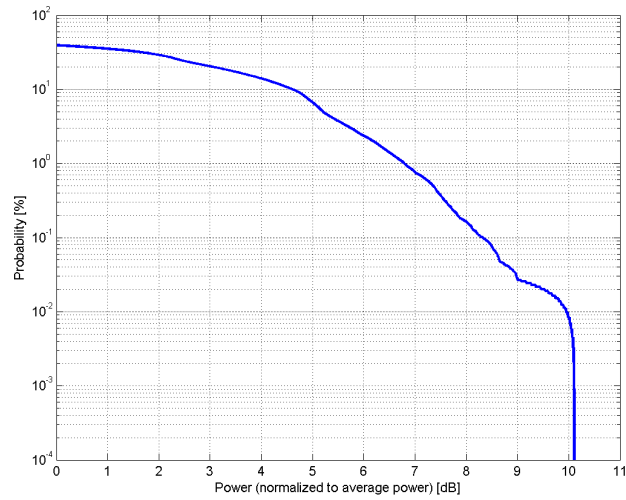


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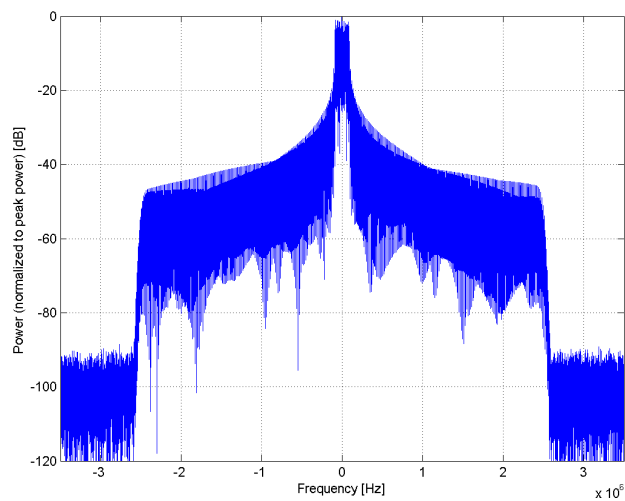
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10468-AAF
PAR: <sup>1</sup>	<b>8.32 dB</b>
MIF: <sup>2</sup>	<b>-3.18 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz) Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 12 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

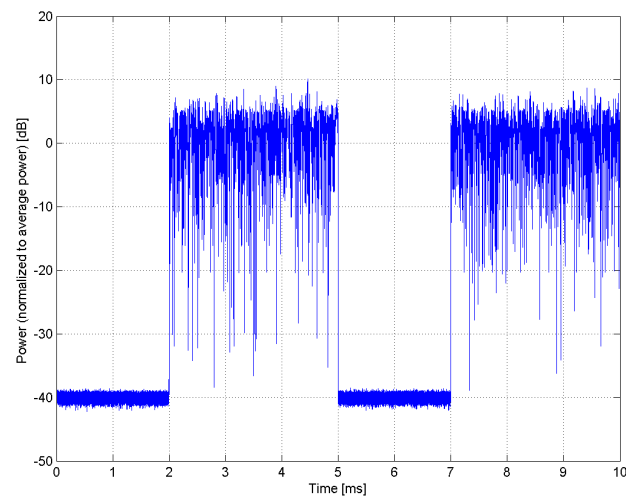
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name: **LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10469-AAF

PAR: <sup>1</sup> **8.56 dB**  
MIF: <sup>2</sup> **-3.31 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

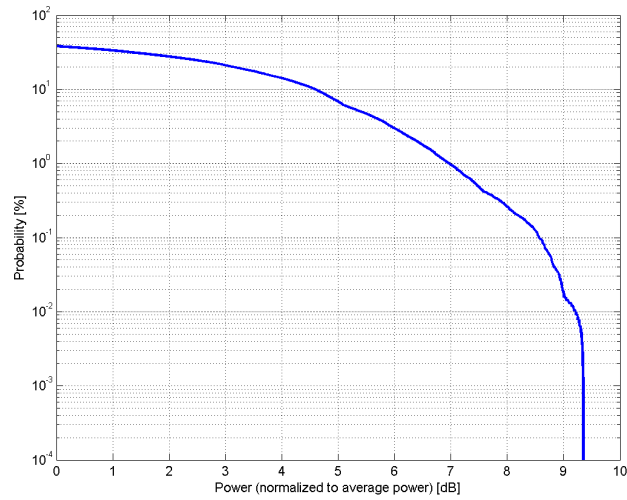
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz)  
Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz)  
Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz)  
Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)  
Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz)  
Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz)  
Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)  
Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz)  
Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz)  
Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz)  
Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 12  
Data Type: PN9fix

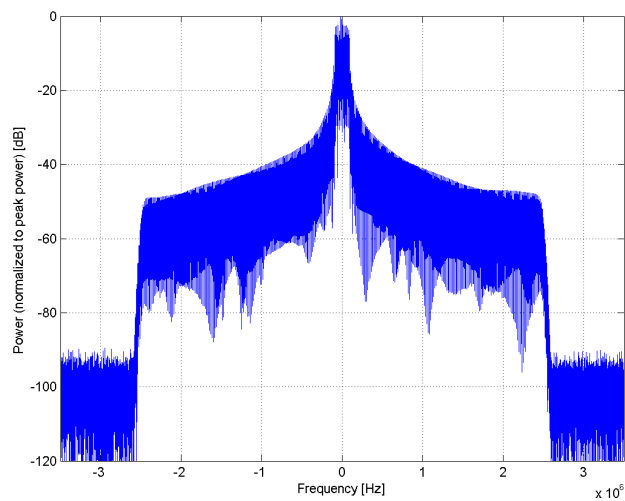
Bandwidth: 5.0 MHz  
Integration Time: 10.0 ms

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

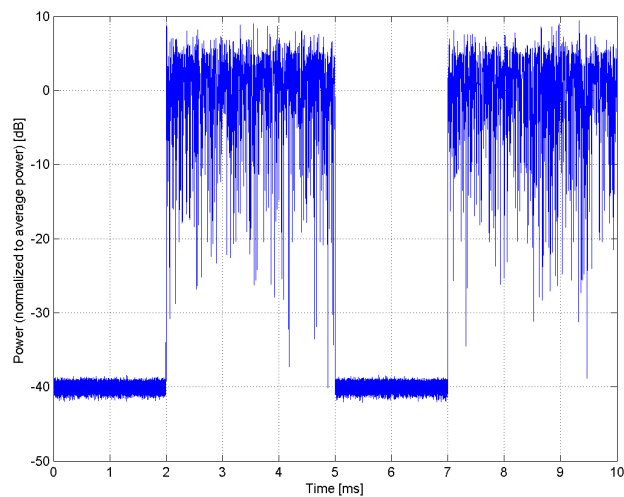
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name: **LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10470-AAF

PAR: <sup>1</sup> **7.82 dB**  
MIF: <sup>2</sup> **-3.41 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

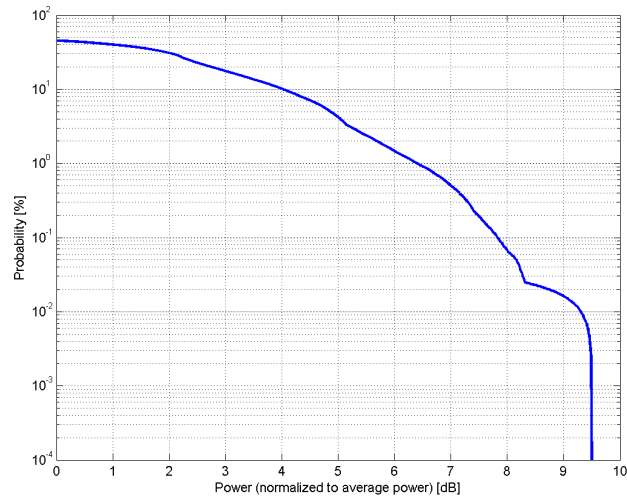
Category: Random amplitude modulation  
Modulation: QPSK  
Frequency Band: Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz)  
Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz)  
Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz)  
Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)  
Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz)  
Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz)  
Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)  
Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz)  
Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz)  
Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz)  
Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz)  
Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 25  
Data Type: PN9fix

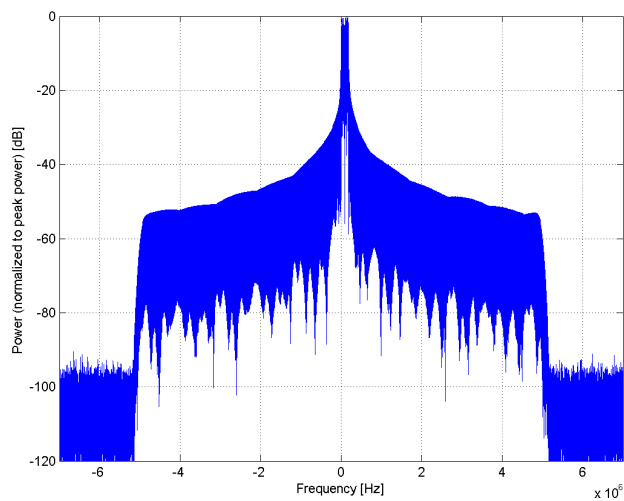
Bandwidth: 10.0 MHz  
Integration Time: 10.0 ms

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

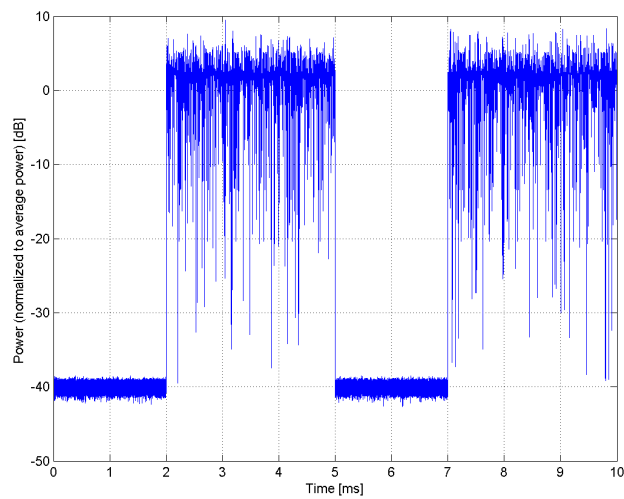
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



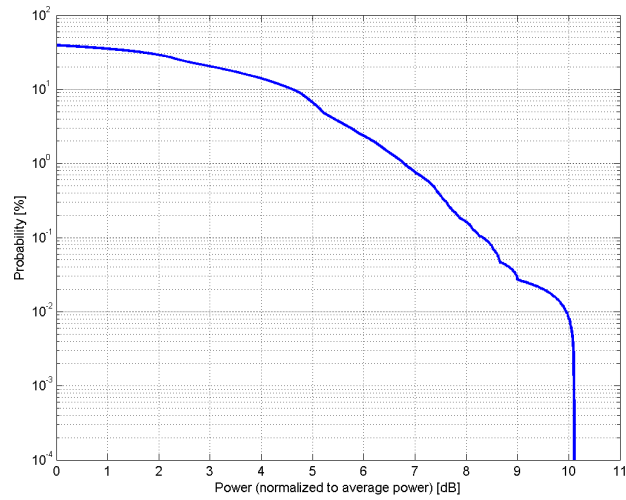
### Time Domain

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

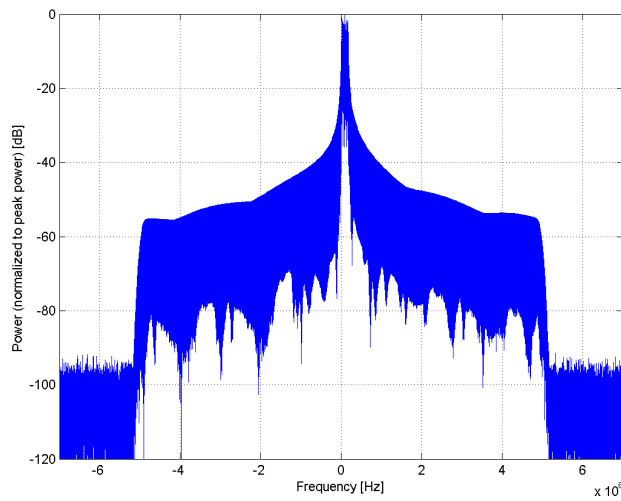
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10471-AAF
PAR: <sup>1</sup>	<b>8.32 dB</b>
MIF: <sup>2</sup>	<b>-3.17 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 25 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

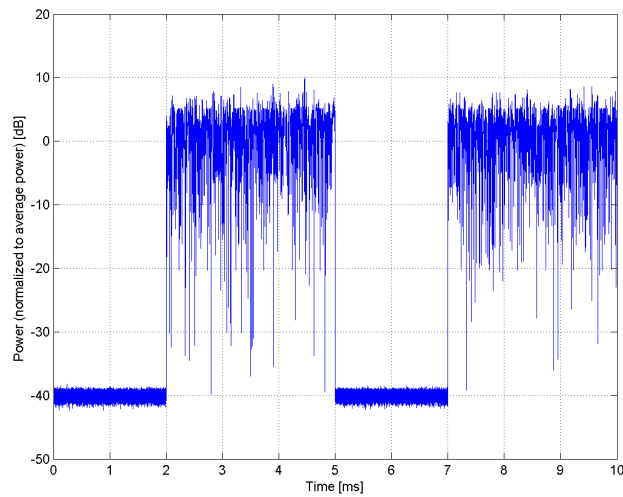
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



**Time Domain**



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Name: **LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10472-AAF

PAR: <sup>1</sup> **8.57 dB**  
MIF: <sup>2</sup> **-3.31 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

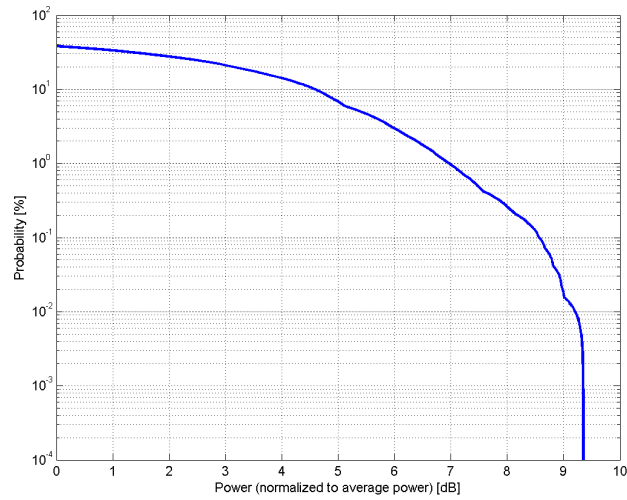
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz)  
Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz)  
Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz)  
Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz)  
Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz)  
Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz)  
Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz)  
Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz)  
Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz)  
Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz)  
Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz)  
Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 1  
Start Number of RB: 25  
Data Type: PN9fix

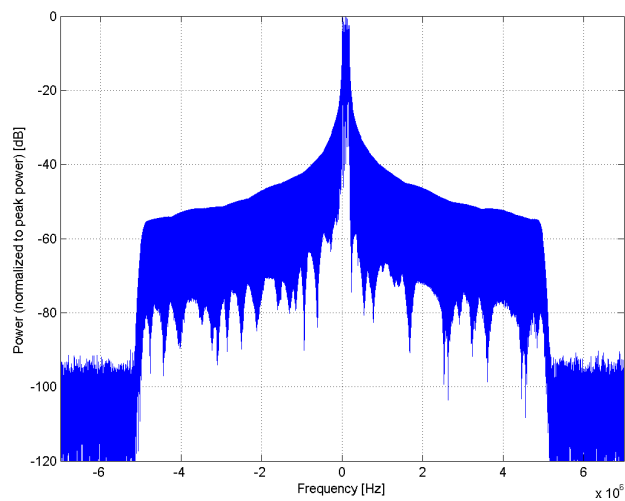
Bandwidth: 10.0 MHz  
Integration Time: 10.0 ms

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

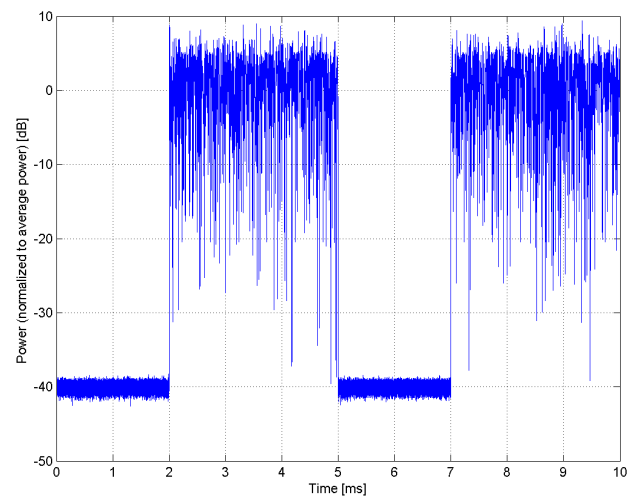
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



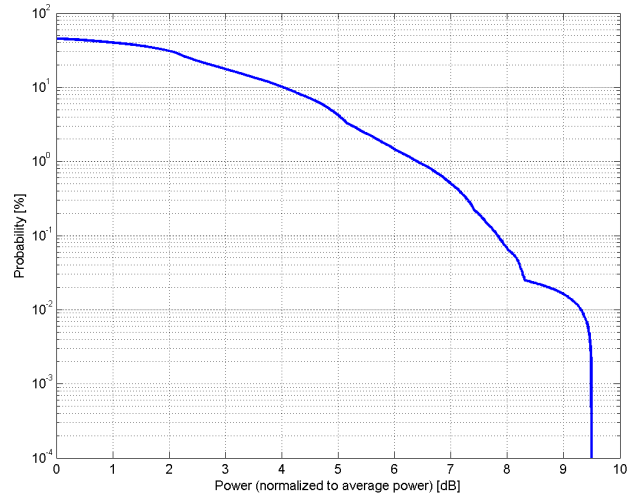
### Time Domain

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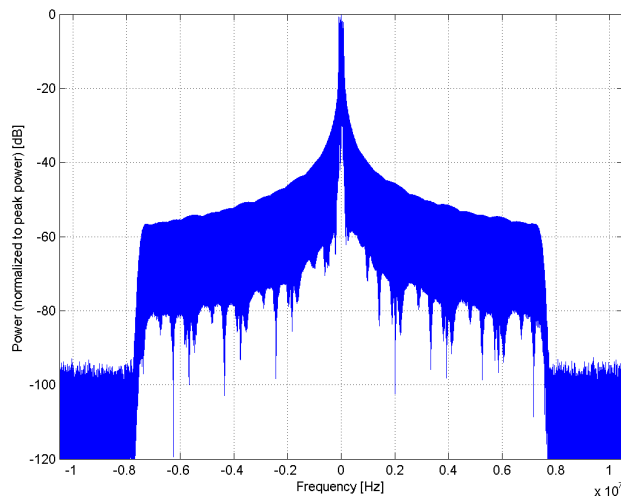
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10473-AAE
PAR: <sup>1</sup>	<b>7.82 dB</b>
MIF: <sup>2</sup>	<b>-3.41 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	QPSK
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 37 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

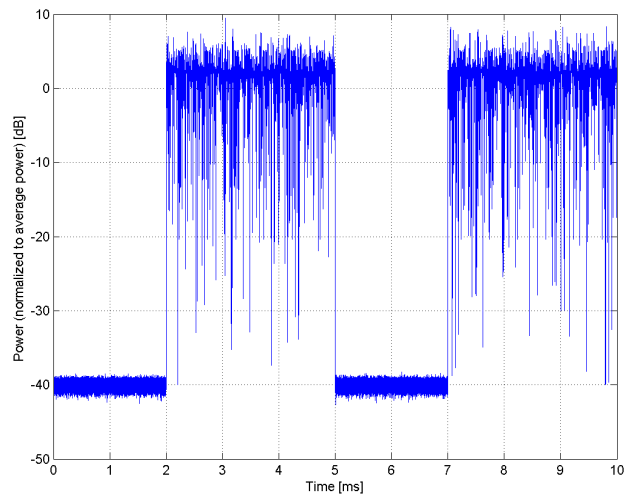
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



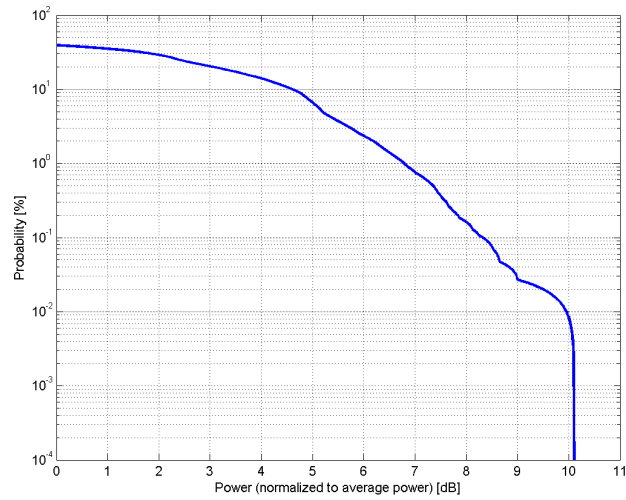
**Time Domain**

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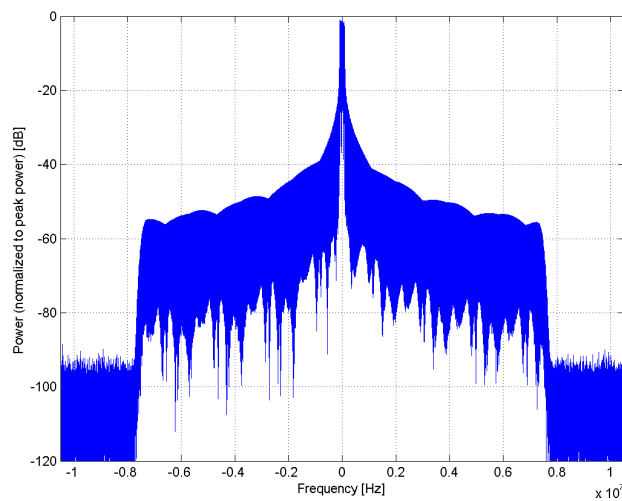
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10474-AAE
PAR: <sup>1</sup>	<b>8.32 dB</b>
MIF: <sup>2</sup>	<b>-3.17 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 37 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

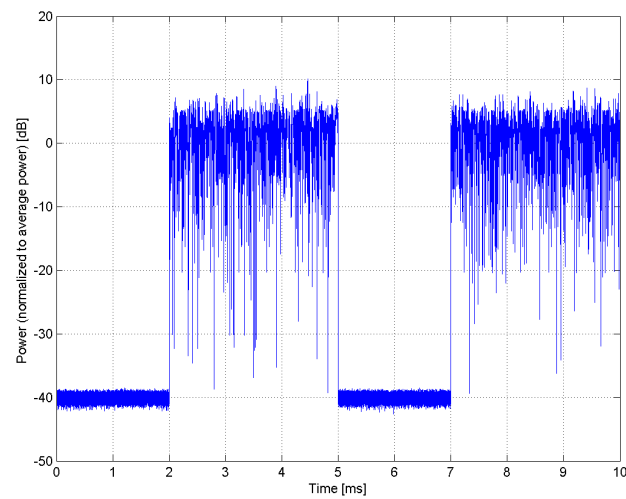
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



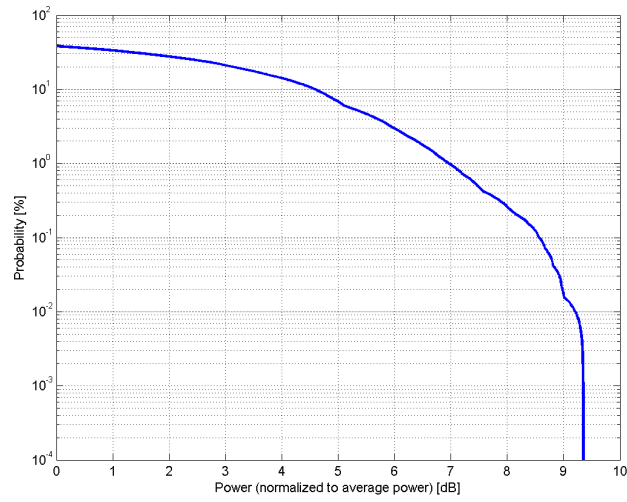
### Time Domain

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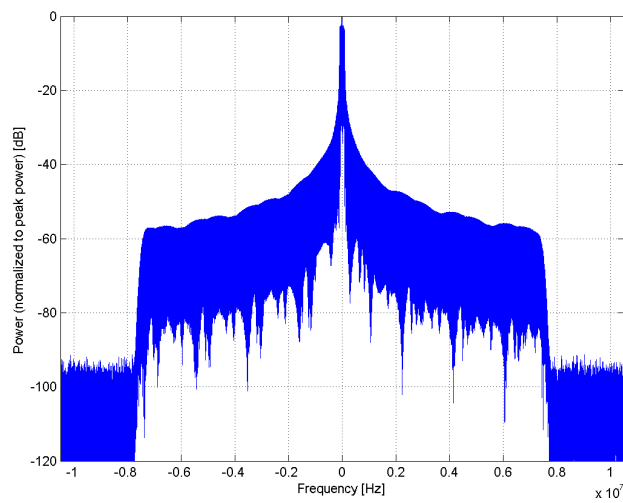
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10475-AAE
PAR: <sup>1</sup>	<b>8.57 dB</b>
MIF: <sup>2</sup>	<b>-3.31 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	64-QAM
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 37 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

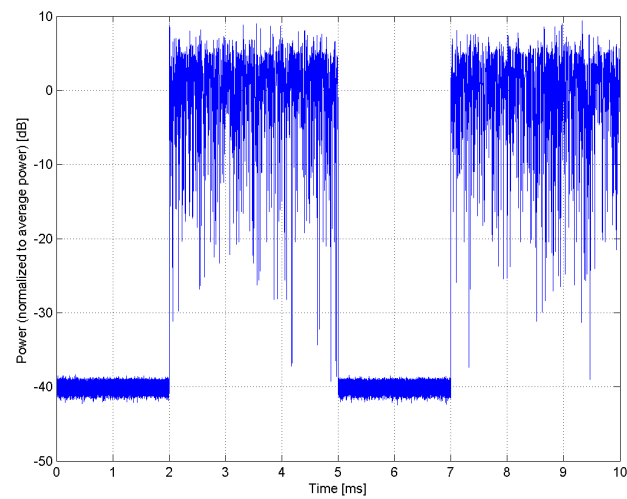
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

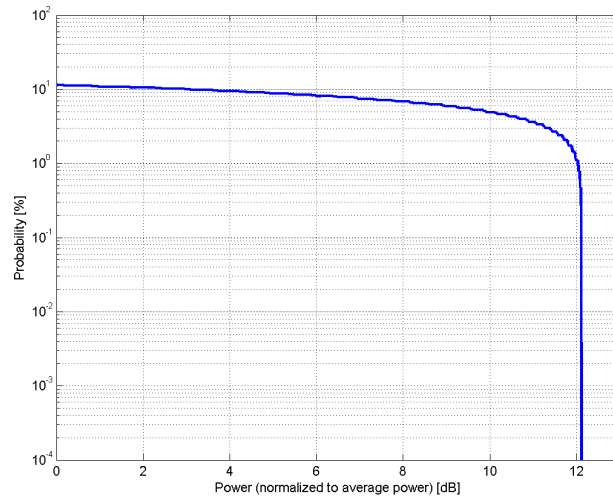


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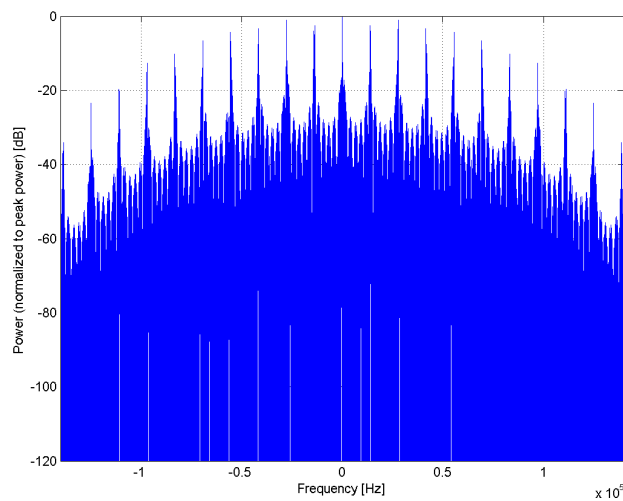
Name:	<b>MRI (Custom, 600us, 2.7ms)</b>
Group:	MRI
UID:	10476-AAC
PAR: <sup>1</sup>	<b>12.10 dB</b>
MIF: <sup>2</sup>	<b>-6.13 dB</b>
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS)
Bandwidth:	0.2MHz
Integration Time:	2.7 ms

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

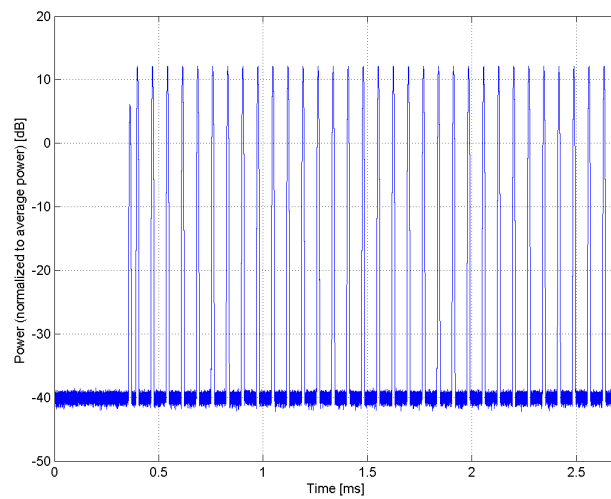
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



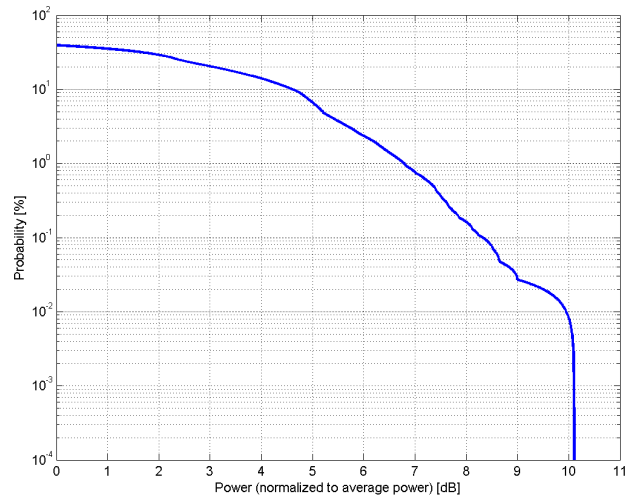
### Time Domain

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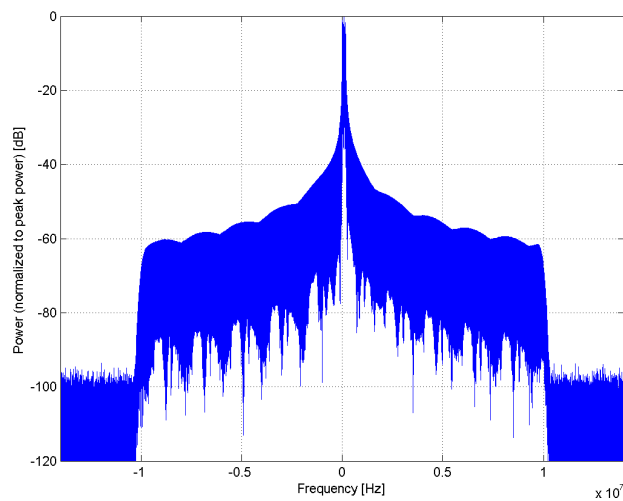
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10477-AAF
PAR: <sup>1</sup>	<b>8.32 dB</b>
MIF: <sup>2</sup>	<b>-3.17 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	16-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 50 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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

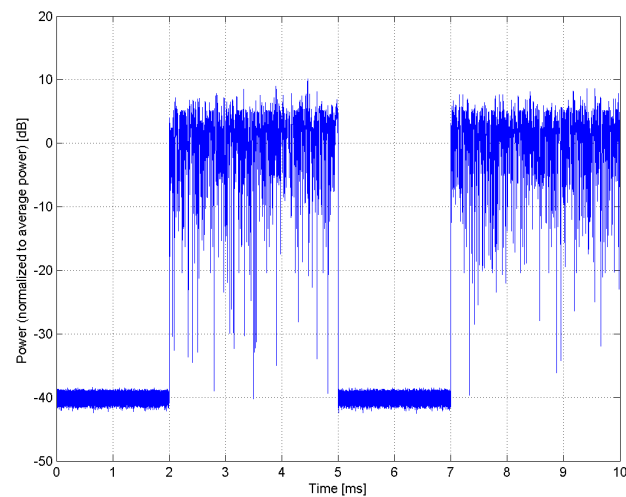
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



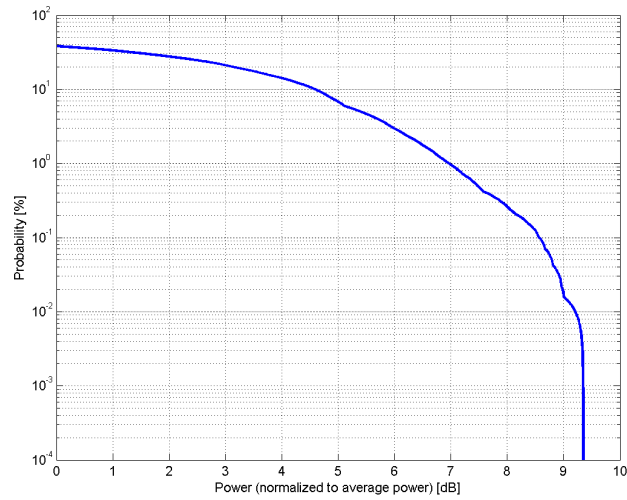
### Time Domain

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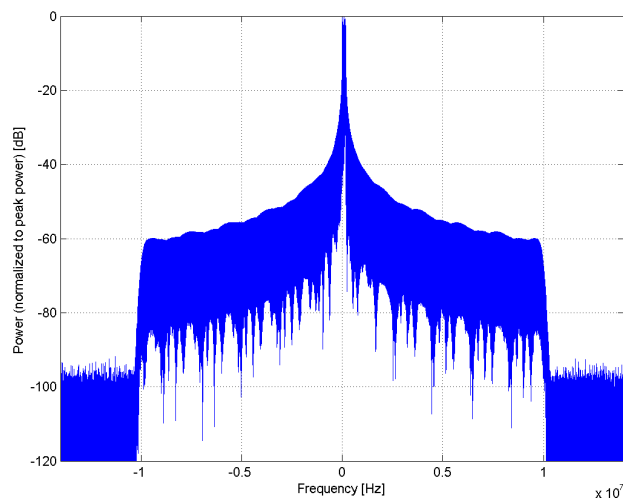
Name:	<b>LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10478-AAF
PAR: <sup>1</sup>	<b>8.57 dB</b>
MIF: <sup>2</sup>	<b>-3.31 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01 Random amplitude modulation
Category:	64-QAM
Modulation:	
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 46, E-UTRA/FDD (5150.0 - 5925.0 MHz) Band 47, E-UTRA/TDD (5855.0 - 5925.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 49, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 76, E-UTRA/FDD (3300.0 - 3400.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 1 Start Number of RB: 50 Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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

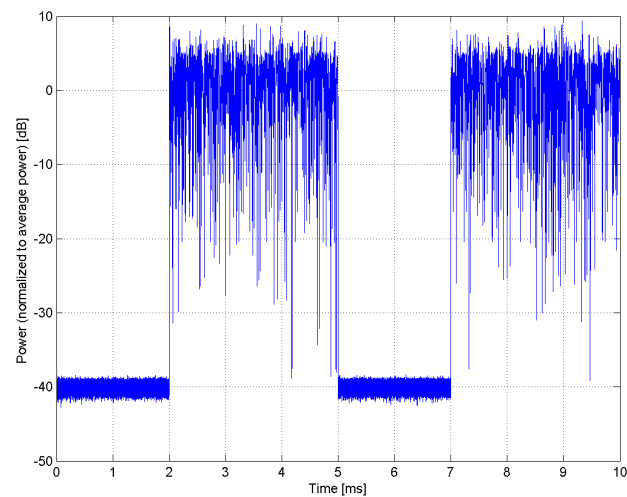
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name: **LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10479-AAB

PAR: <sup>1</sup> **7.74 dB**  
MIF: <sup>2</sup> **-3.41 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

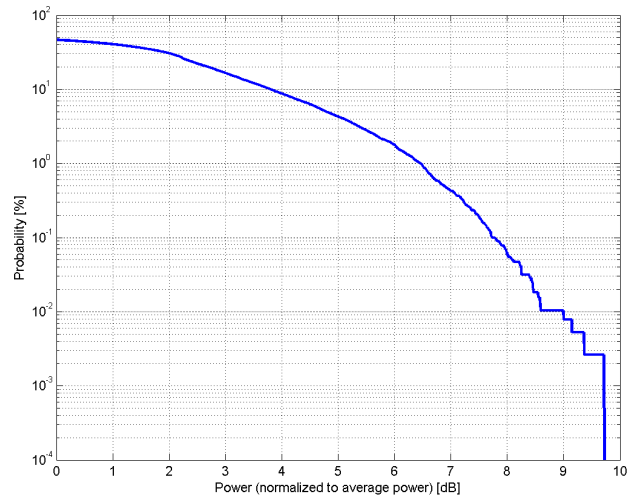
Category: Random amplitude modulation  
Modulation: QPSK  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 3  
Start Number of RB: 2  
Data Type: PN9fix

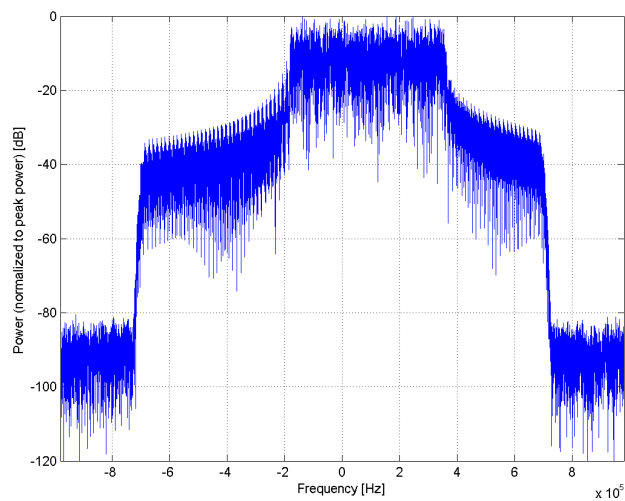
Bandwidth: 1.4 MHz  
Integration Time: 10.0 ms

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

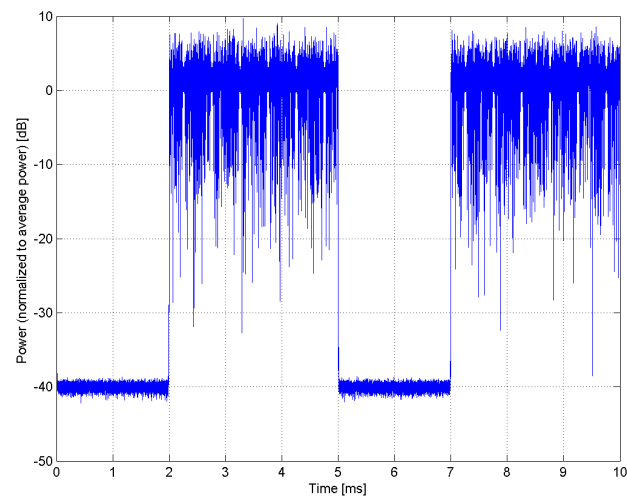
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

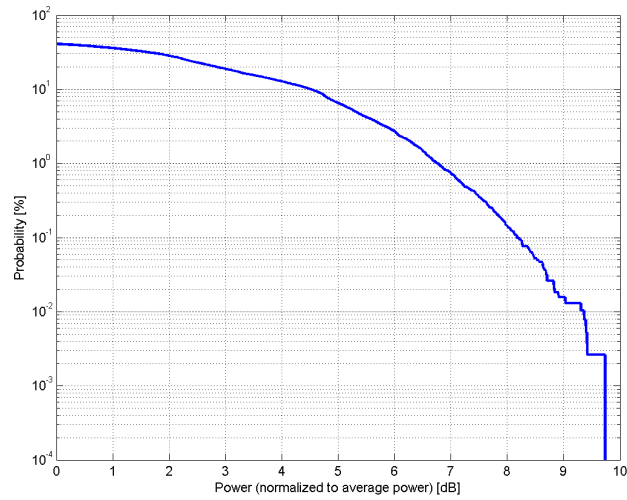


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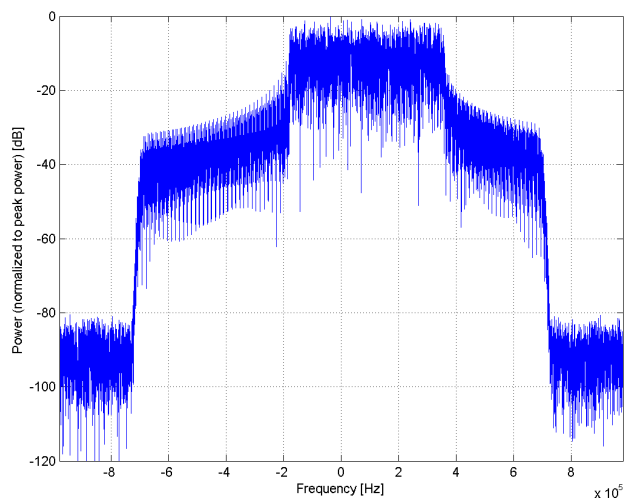
Name:	<b>LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10480-AAB
PAR: <sup>1</sup>	<b>8.18 dB</b>
MIF: <sup>2</sup>	<b>-3.37 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 3 Start Number of RB: 2 Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

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

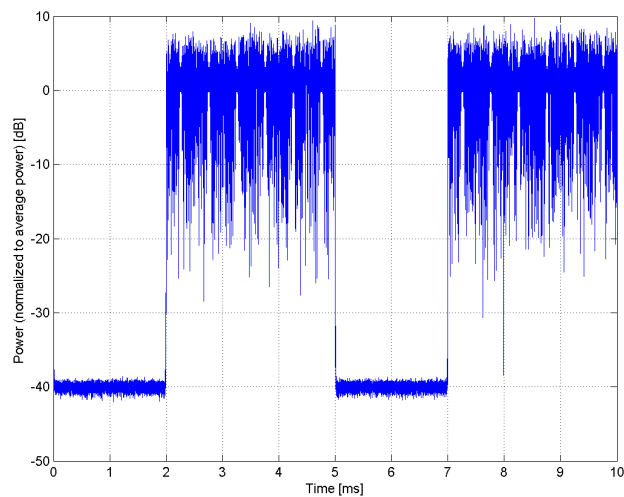
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name: **LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10481-AAB

PAR: <sup>1</sup> **8.45 dB**  
MIF: <sup>2</sup> **-3.31 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

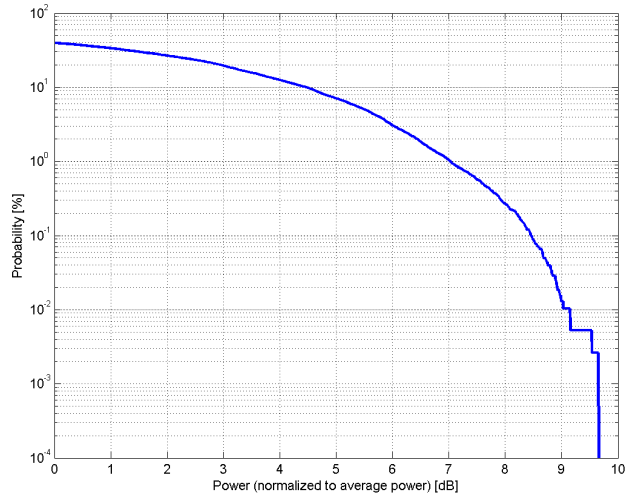
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 3  
Start Number of RB: 2  
Data Type: PN9fix

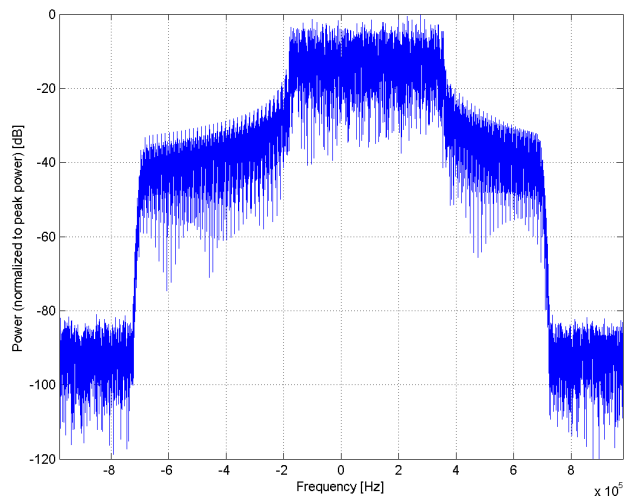
Bandwidth: 1.4 MHz  
Integration Time: 10.0 ms

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

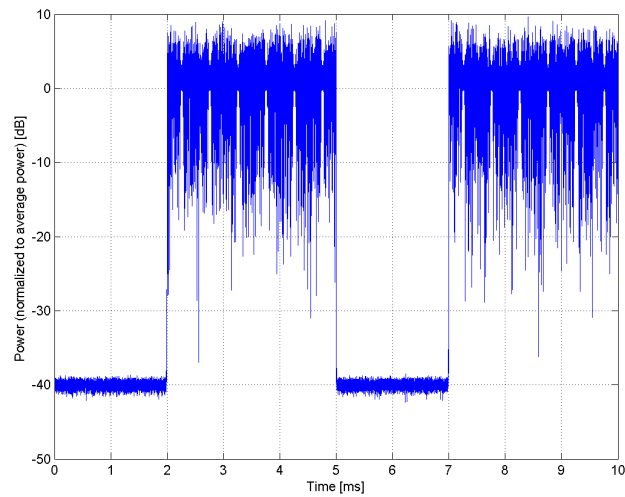
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



**Time Domain**

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

Name: **LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10482-AAC

PAR: <sup>1</sup> **7.71 dB**  
MIF: <sup>2</sup> **-3.40 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

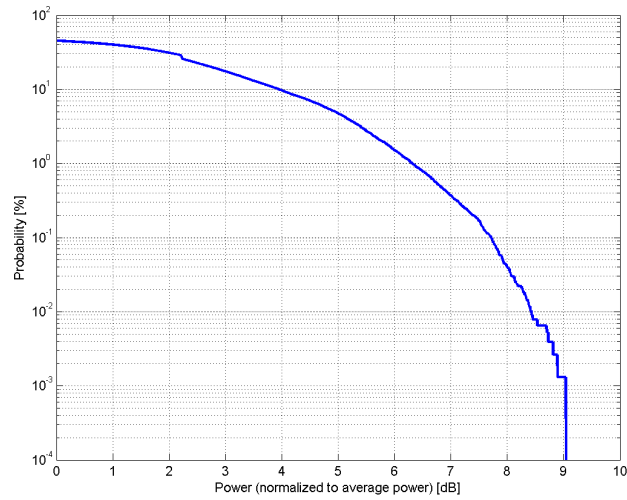
Category: Random amplitude modulation  
Modulation: QPSK  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 8  
Start Number of RB: 3  
Data Type: PN9fix

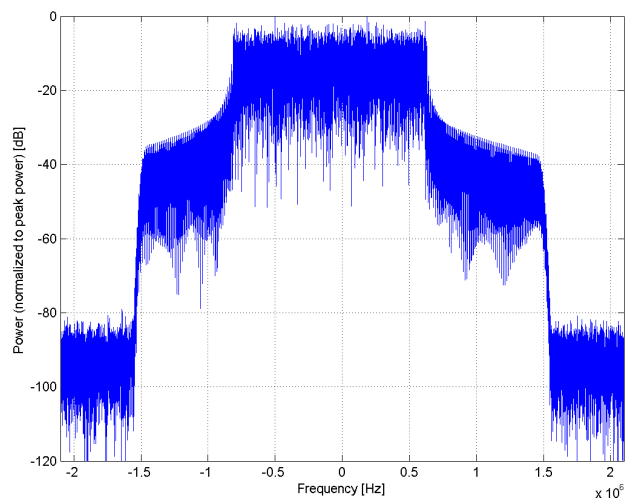
Bandwidth: 3.0 MHz  
Integration Time: 10.0 ms

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

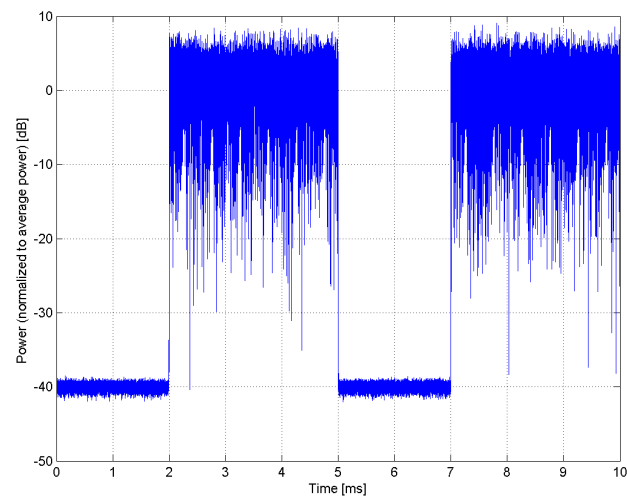
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



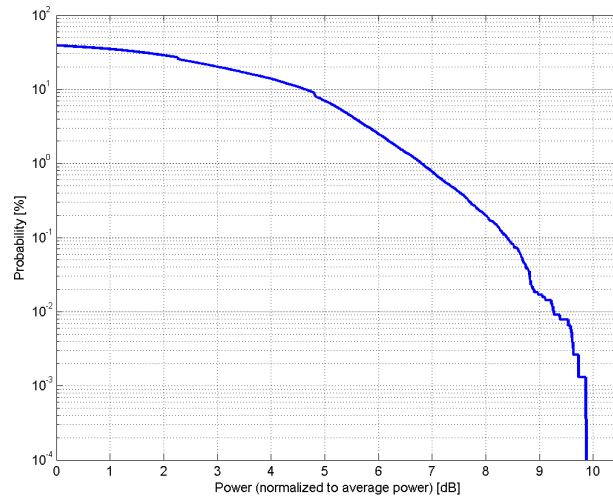
### Time Domain

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Zeughausstrasse 43, 8004 Zurich, Switzerland

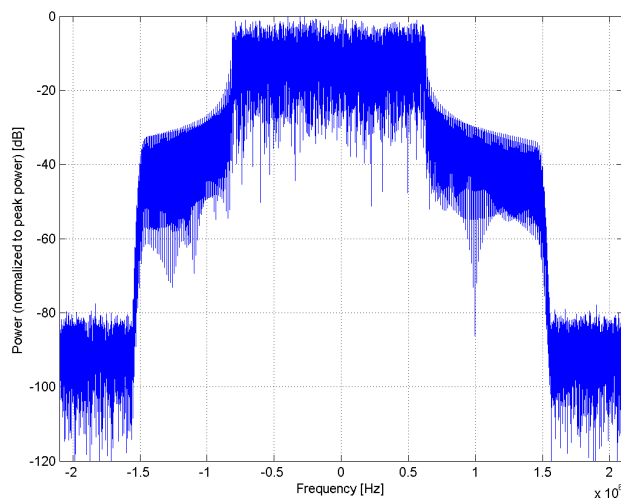
Name:	<b>LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10483-AAC
PAR: <sup>1</sup>	<b>8.39 dB</b>
MIF: <sup>2</sup>	<b>-3.46 dB</b>
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 8 Start Number of RB: 3 Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

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

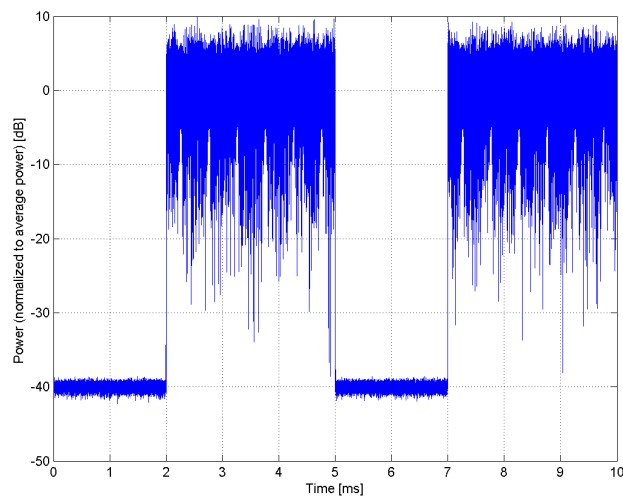
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain



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

Name: **LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)**

Group: LTE-TDD  
UID: 10484-AAC

PAR: <sup>1</sup> **8.47 dB**  
MIF: <sup>2</sup> **-3.43 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

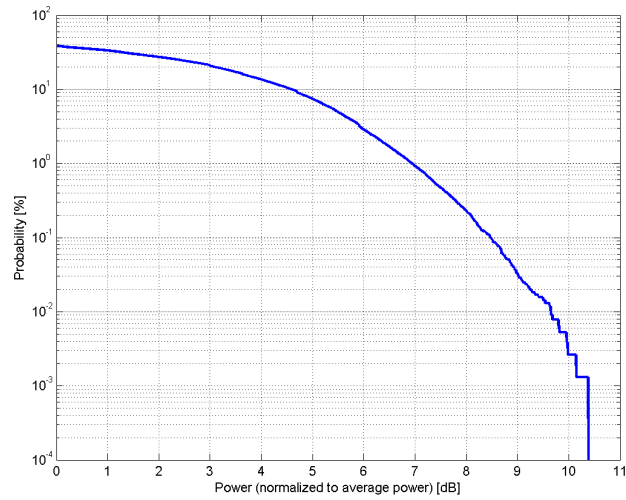
Category: Random amplitude modulation  
Modulation: 64-QAM  
Frequency Band: Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz)  
Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz)  
Band 44, E-UTRA/TDD (703.0 - 803.0 MHz)  
Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz)  
Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz)  
Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz)  
Validation band (0.0 - 6000.0 MHz)

Detailed Specification: Modulation Scheme: SC-FDMA  
Uplink-downlink configuration: 0  
Special Subframe configuration: 7  
Number of Frames: 1  
Settings for UL Subframe: 2,3,4,7,8,9  
Number of PUSCHs: 1  
Modulation Scheme: QPSK  
Allocated RB: 8  
Start Number of RB: 3  
Data Type: PN9fix

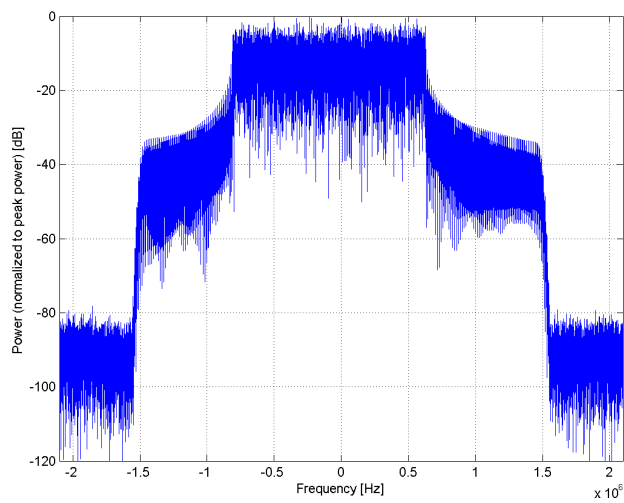
Bandwidth: 3.0 MHz  
Integration Time: 10.0 ms

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

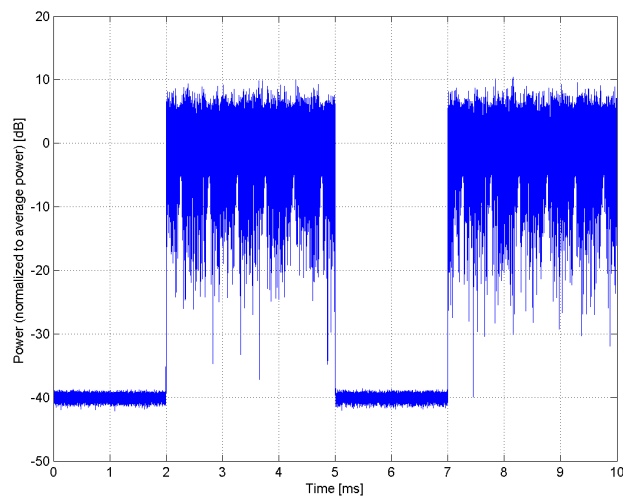
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



### Complementary Cumulative Distribution Function (CCDF)



### Frequency Domain



### Time Domain

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

Name:	<b>LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)</b>
Group:	LTE-TDD
UID:	10485-AAF
PAR: <sup>1</sup>	<b>7.59 dB</b>
MIF: <sup>2</sup>	<b>-3.40 dB</b>
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
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 34, E-UTRA/TDD (2010.0 - 2025.0 MHz) Band 35, E-UTRA/TDD (1850.0 - 1910.0 MHz) Band 36, E-UTRA/TDD (1930.0 - 1990.0 MHz) Band 37, E-UTRA/TDD (1910.0 - 1930.0 MHz) Band 38, E-UTRA/TDD (2570.0 - 2620.0 MHz) Band 39, E-UTRA/TDD (1880.0 - 1920.0 MHz) Band 40, E-UTRA/TDD (2300.0 - 2400.0 MHz) Band 41, E-UTRA/TDD (2496.0 - 2690.0 MHz) Band 42, E-UTRA/TDD (3400.0 - 3600.0 MHz) Band 43, E-UTRA/TDD (3600.0 - 3800.0 MHz) Band 44, E-UTRA/TDD (703.0 - 803.0 MHz) Band 45, E-UTRA/FDD (1447.0 - 1467.0 MHz) Band 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Band 50, E-UTRA/TDD (1432.0 - 1517.0 MHz) Band 51, E-UTRA/TDD (1427.0 - 1432.0 MHz) Band 52, E-UTRA/FDD (3300.0 - 3400.0 MHz) Band 53, E-UTRA/FDD (2483.5 - 2495.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 0 Special Subframe configuration: 7 Number of Frames: 1 Settings for UL Subframe: 2,3,4,7,8,9 Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 12 Start Number of RB: 7 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

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