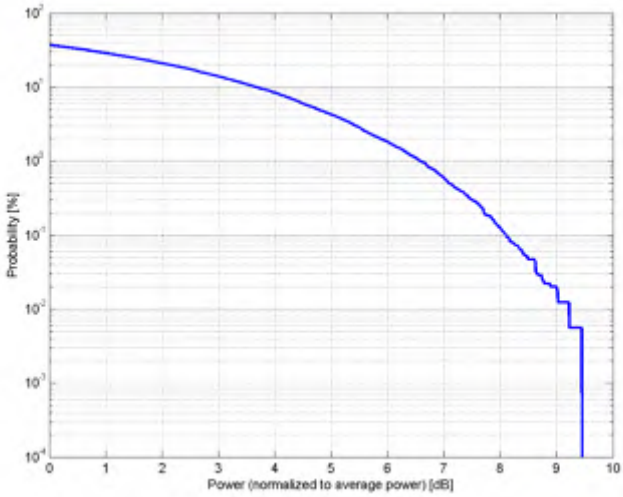
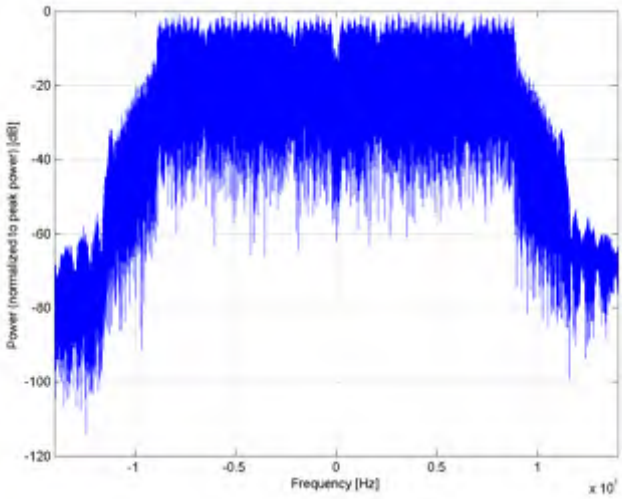
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)**
Group:	WLAN
UID:	10193-CAC
PAR: [1]	**8.09 dB**
MIF: [2]	**-15.80 dB**
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: 6.5 Mbps PPDU Format: HT Greenfield PPDU Type: 20 MHz MCS Index: 0 Guard Interval: Long Payload Length: 1767
Bandwidth:	20.0 MHz
Integration Time:	2.3 ms

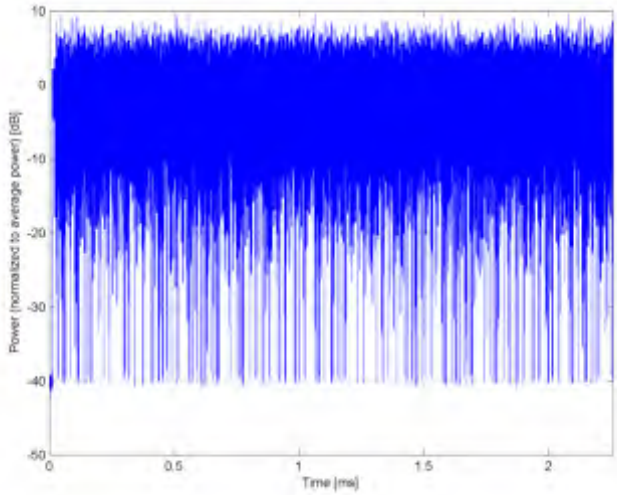
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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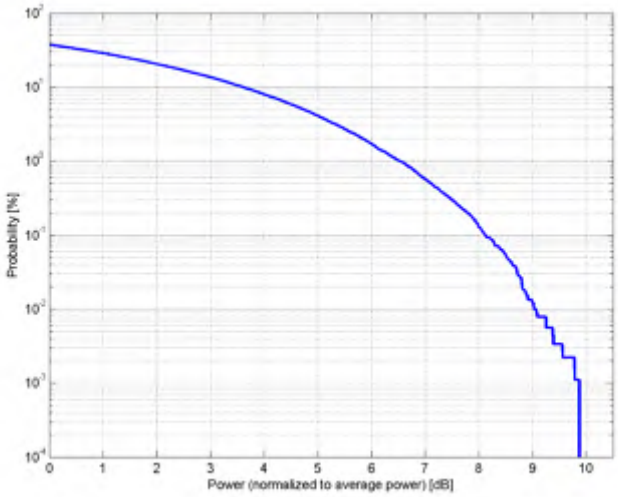
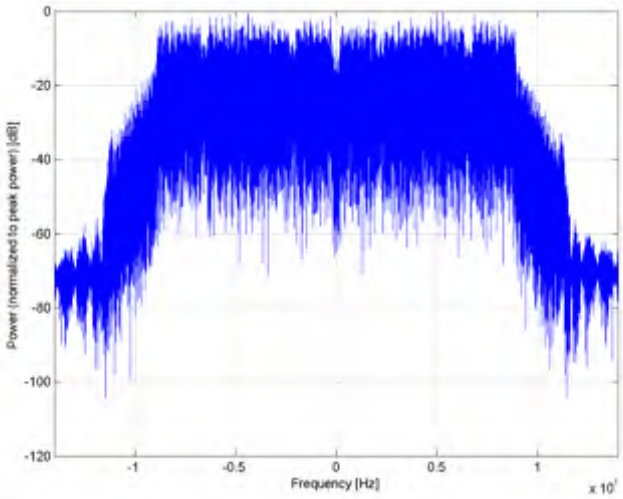
Name:	**IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)**
Group:	WLAN
UID:	10194-CAC
PAR: [1]	**8.12 dB**
MIF: [2]	**-16.17 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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:	Modulation: 16-QAM Data Rate: 39 Mbps PPDU Format: HT Greenfield PPDU Type: 20 MHz MCS Index: 4 Guard Interval: Long Payload Length: 10766
Bandwidth:	20.0 MHz
Integration Time:	2.3 ms

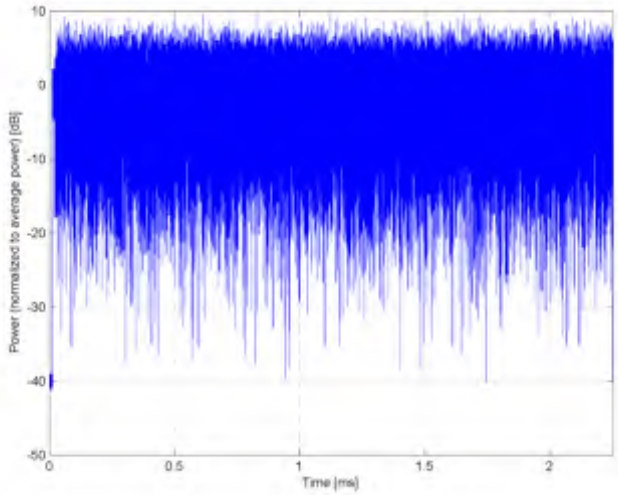
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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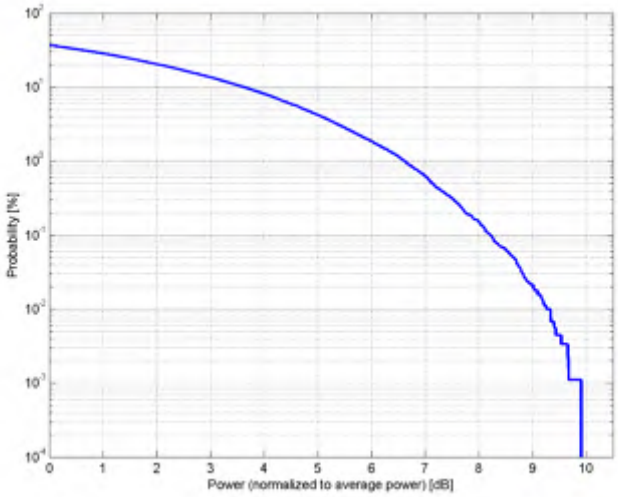
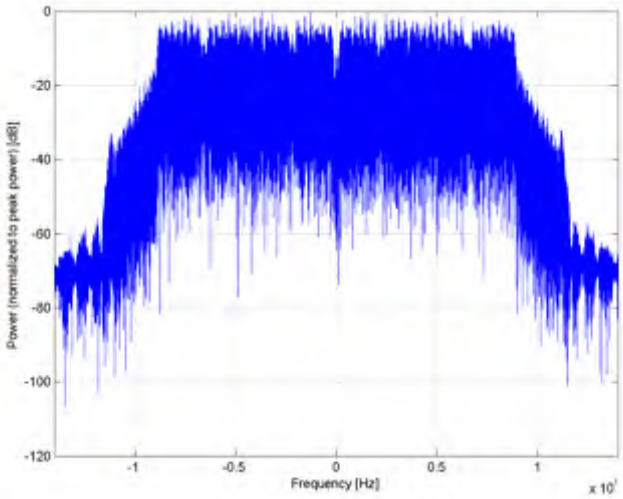
Name:	**IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)**
Group:	WLAN
UID:	10195-CAC
PAR: [1]	**8.21 dB**
MIF: [2]	**-15.73 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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:	Modulation: 64-QAM Data Rate: 65 Mbps PPDU Format: HT Greenfield PPDU Type: 20 MHz MCS Index: 7 Guard Interval: Long Payload Length: 17968
Bandwidth:	20.0 MHz
Integration Time:	2.3 ms

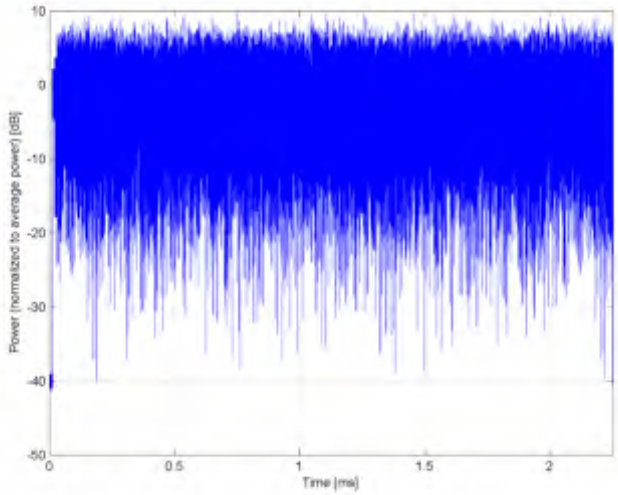
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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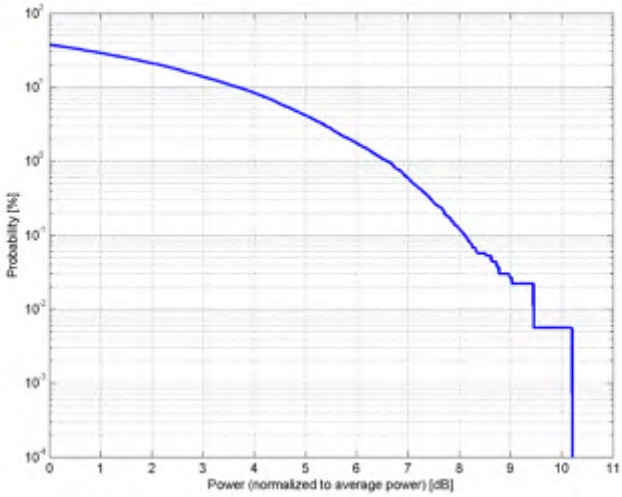
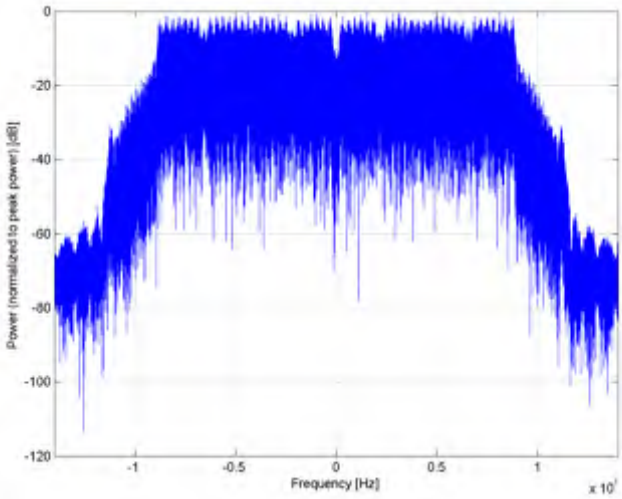
Name:	**IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)**
Group:	WLAN
UID:	10196-CAC
PAR: [1]	**8.10 dB**
MIF: [2]	**-16.16 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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: 6.5 Mbps PPDU Format: HT Mixed PPDU Type: 20 MHz MCS Index: 0 Guard Interval: Long Payload Length: 1767
Bandwidth:	20.0 MHz
Integration Time:	2.3 ms

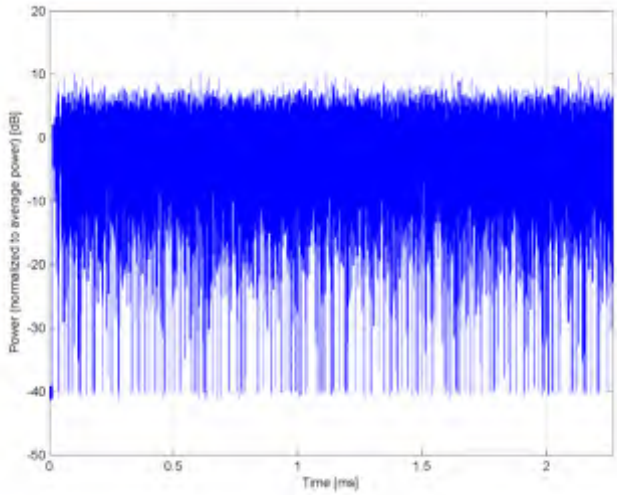
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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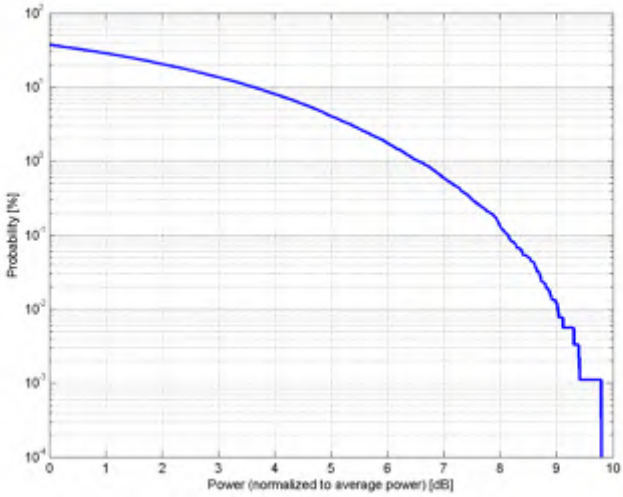
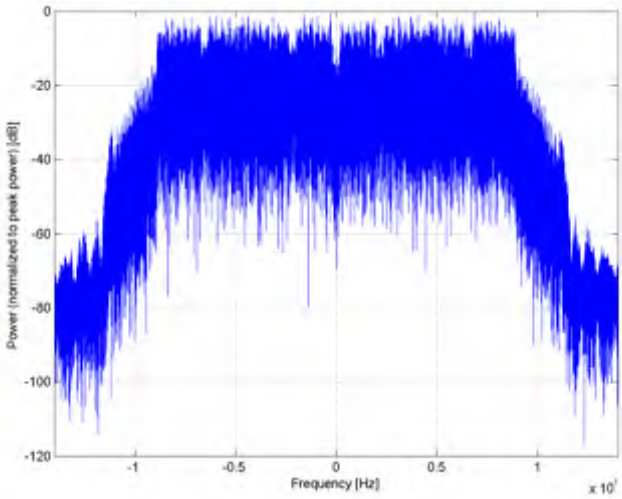
Name:	**IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)**
Group:	WLAN
UID:	10197-CAC
PAR: [1]	**8.13 dB**
MIF: [2]	**-16.43 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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:	Modulation: 16-QAM Data Rate: 39 Mbps PPDU Format: HT Mixed PPDU Type: 20 MHz MCS Index: 4 Guard Interval: Long Payload Length: 10766
Bandwidth:	20.0 MHz
Integration Time:	2.3 ms

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

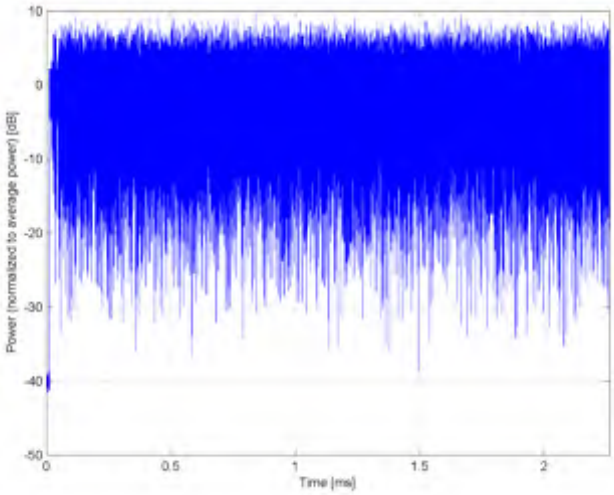
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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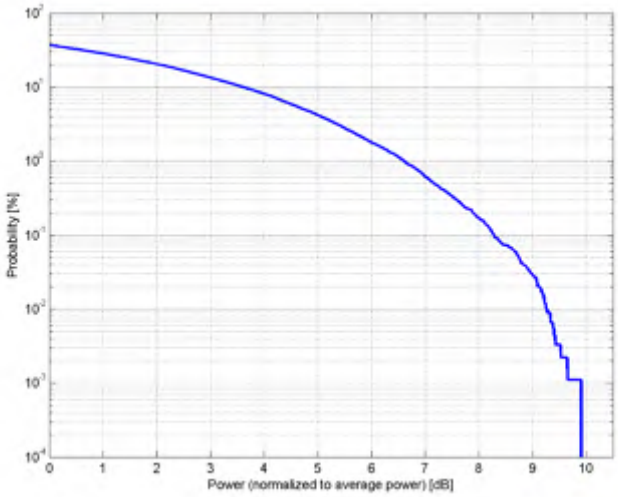
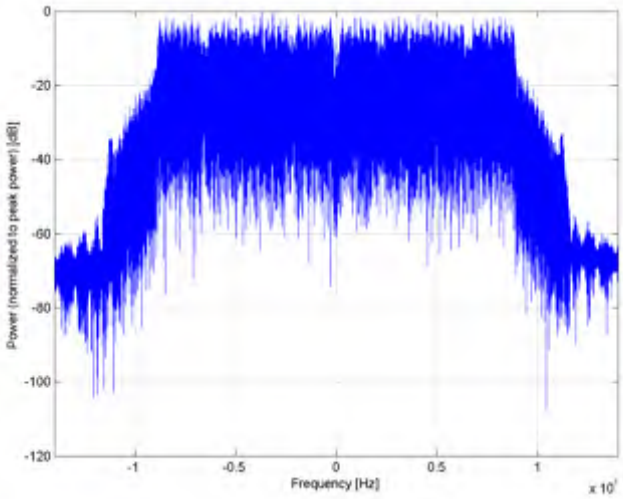
Name:	**IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)**
Group:	WLAN
UID:	10198-CAC
PAR: [1]	**8.27 dB**
MIF: [2]	**-15.98 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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:	Modulation: 64-QAM Data Rate: 65 Mbps PPDU Format: HT Mixed PPDU Type: 20 MHz MCS Index: 7 Guard Interval: Long Payload Length: 17968
Bandwidth:	20.0 MHz
Integration Time:	2.3 ms

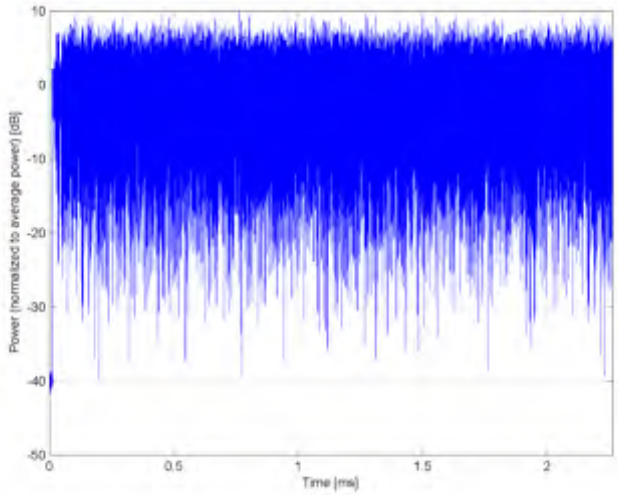
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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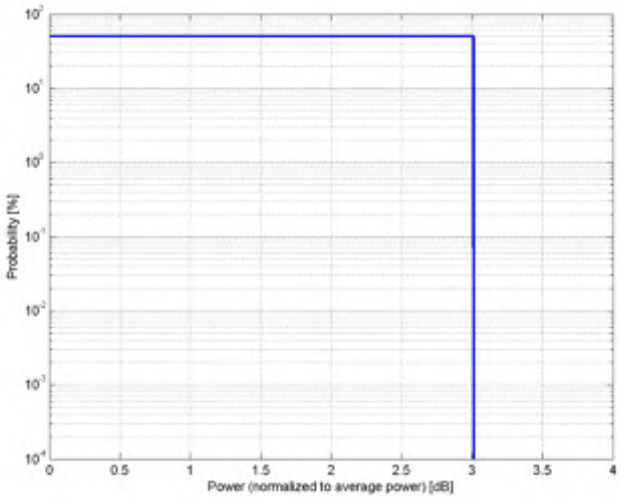
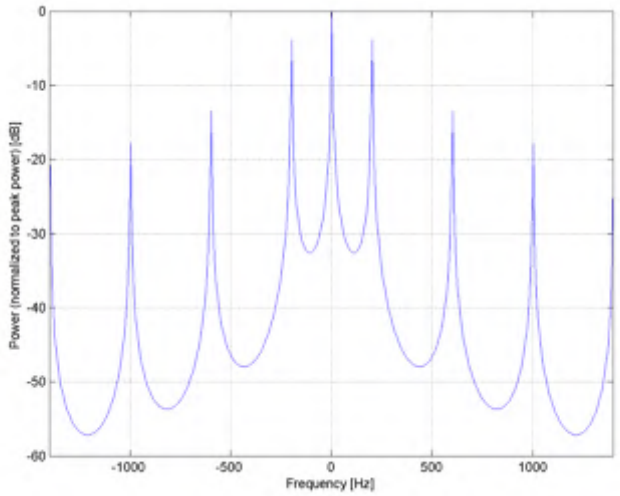
Name:	**MRI (Square, 5ms, 2.5ms)**
Group:	MRI
UID:	10199-DAC
PAR: [1]	**3.01 dB**
MIF: [2]	**-99.00 dB**
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Custom Calibration Sequence Pulse Shape: rectangular Repetition Rate: 200 Hz Duty Cycle: 50%
Bandwidth:	0.0 MHz
Integration Time:	5.0 ms

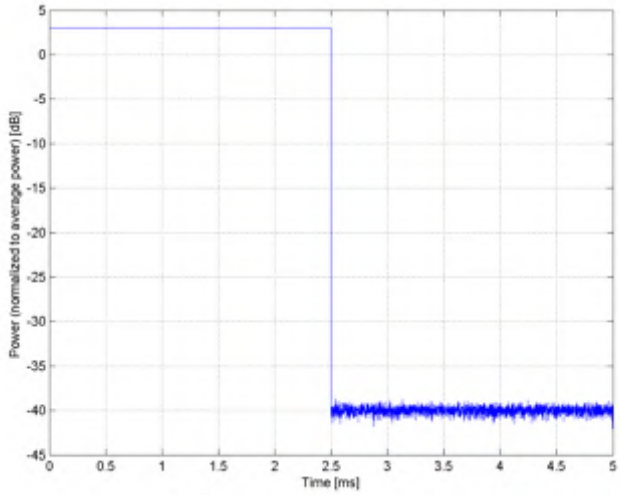
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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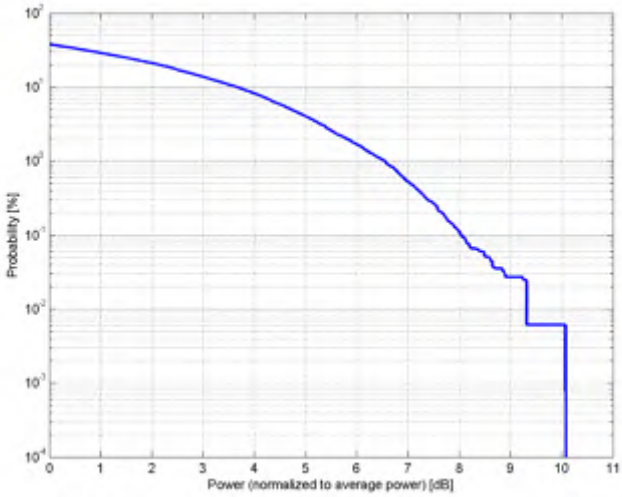
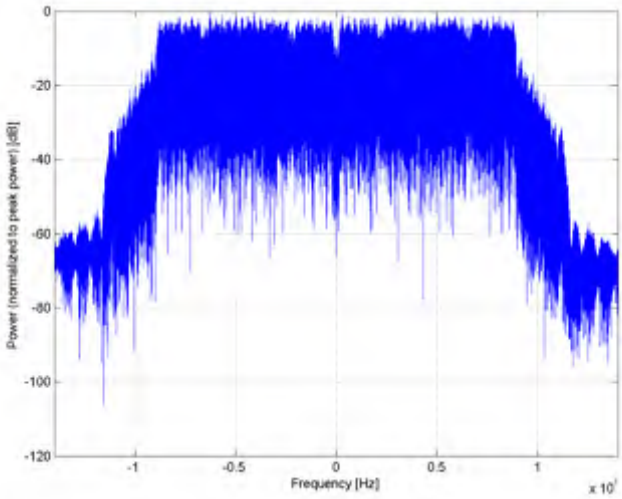
Name:	**IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)**
Group:	WLAN
UID:	10219-CAC
PAR: [1]	**8.03 dB**
MIF: [2]	**-15.94 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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 Mixed PPDU Type: 20 MHz MCS Index: 0 Guard Interval: Short Payload Length: 1761
Bandwidth:	20.0 MHz
Integration Time:	2.0 ms

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

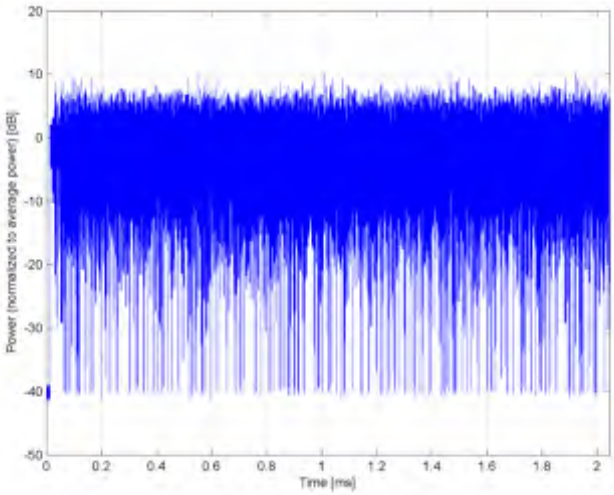
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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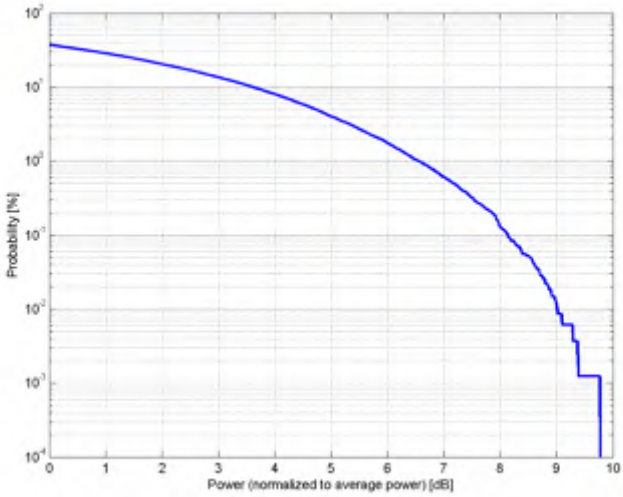
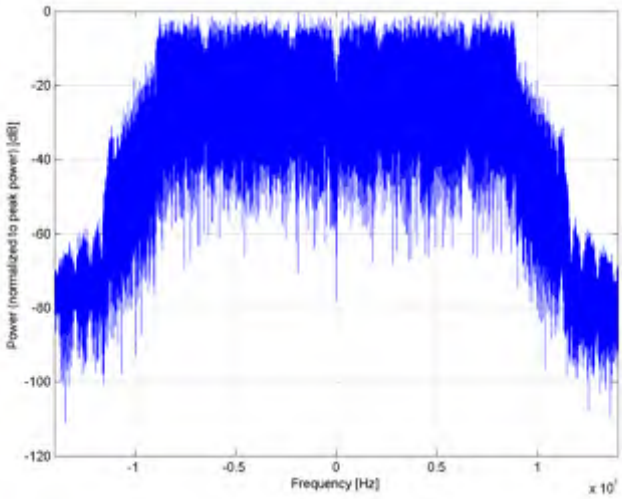
Name:	**IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)**
Group:	WLAN
UID:	10220-CAC
PAR: [1]	**8.13 dB**
MIF: [2]	**-16.33 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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:	Modulation: 16-QAM Data Rate: 43.3 Mbps PPDU Format: HT Mixed PPDU Type: 20 MHz MCS Index: 4 Guard Interval: Short Payload Length: 10757
Bandwidth:	20.0 MHz
Integration Time:	2.0 ms

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

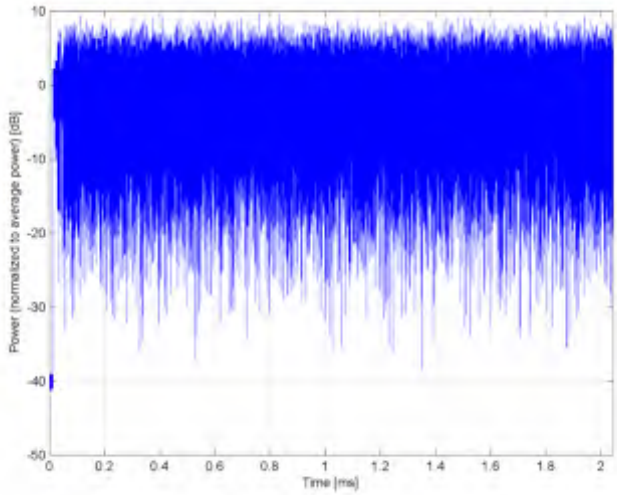
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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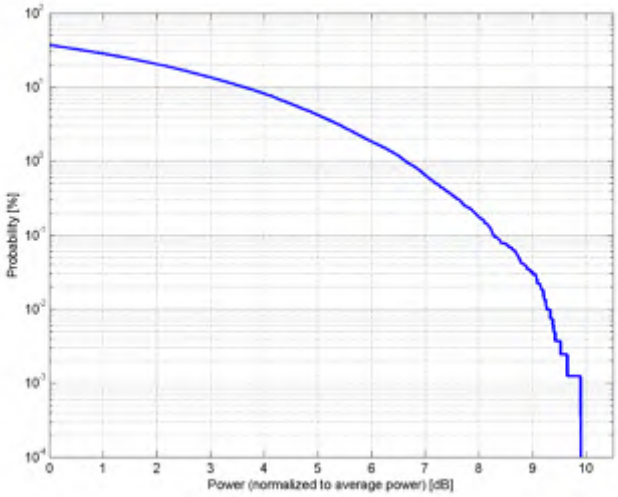
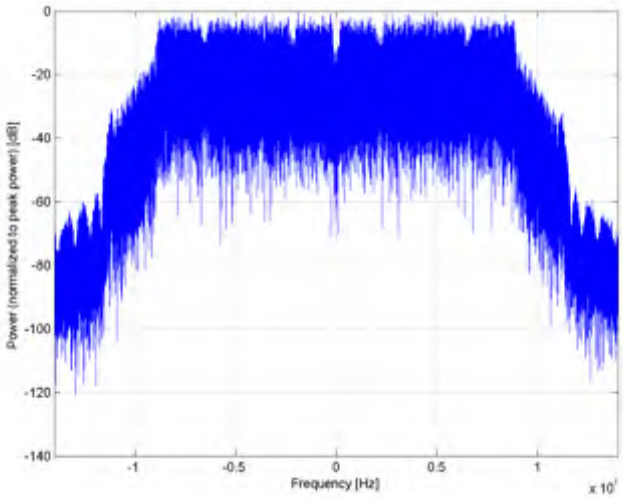
Name:	**IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)**
Group:	WLAN
UID:	10221-CAC
PAR: [1]	**8.27 dB**
MIF: [2]	**-16.16 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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:	Modulation: 64-QAM Data Rate: 72.2 Mbps PPDU Format: HT Mixed PPDU Type: 20 MHz MCS Index: 7 Guard Interval: Short Payload Length: 17962
Bandwidth:	20.0 MHz
Integration Time:	2.0 ms

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

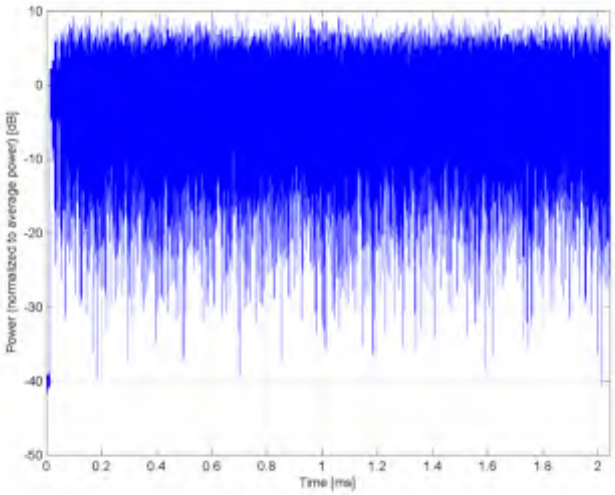
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

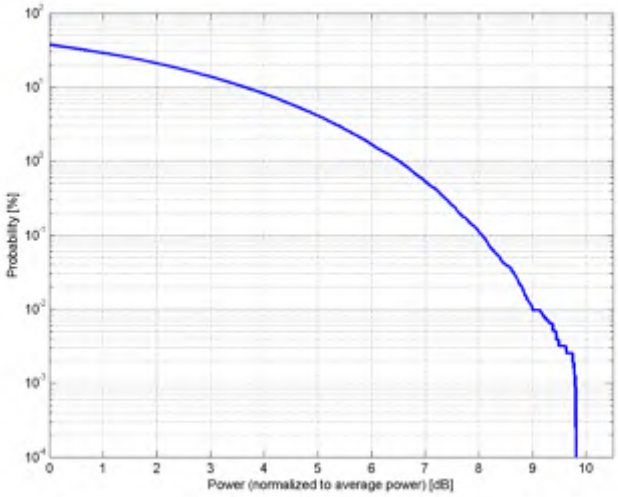


Time Domain

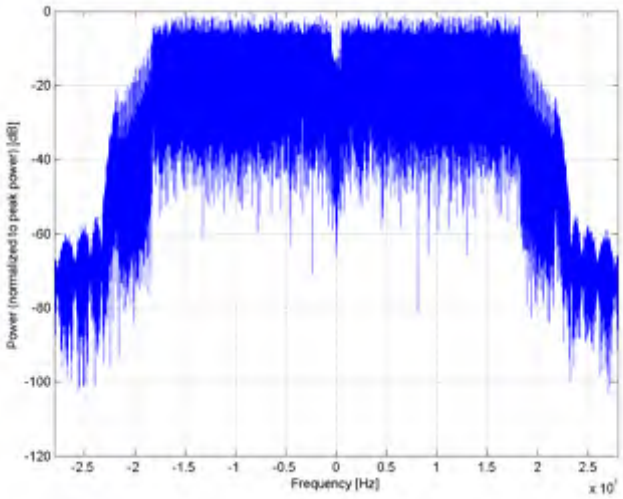
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)**
Group:	WLAN
UID:	10222-CAC
PAR: [1]	**8.06 dB**
MIF: [2]	**-17.00 dB**
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 Mixed PPDU Type: 40 MHz MCS Index: 0 Guard Interval: Short Payload Length: 3567
Bandwidth:	40.0 MHz
Integration Time:	2.0 ms

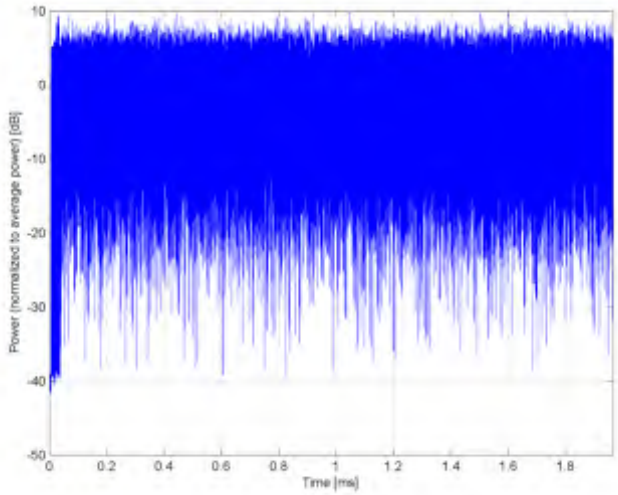
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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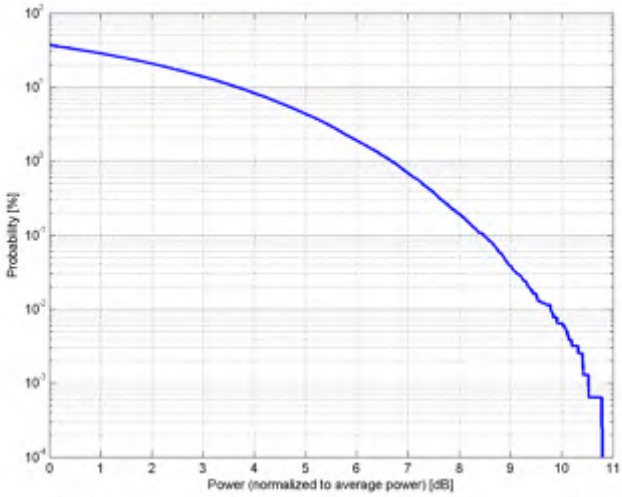
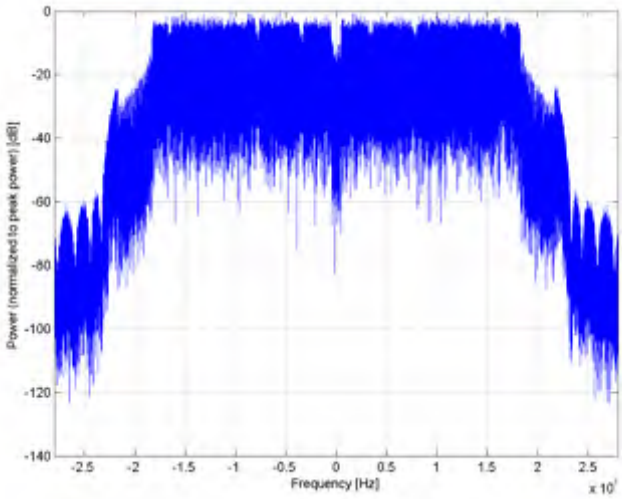
Name:	**IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)**
Group:	WLAN
UID:	10223-CAC
PAR: [1]	**8.48 dB**
MIF: [2]	**-17.20 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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:	Modulation: 16-QAM Data Rate: 90 Mbps PPDU Format: HT Mixed PPDU Type: 40 MHz MCS Index: 4 Guard Interval: Short Payload Length: 21590
Bandwidth:	40.0 MHz
Integration Time:	2.0 ms

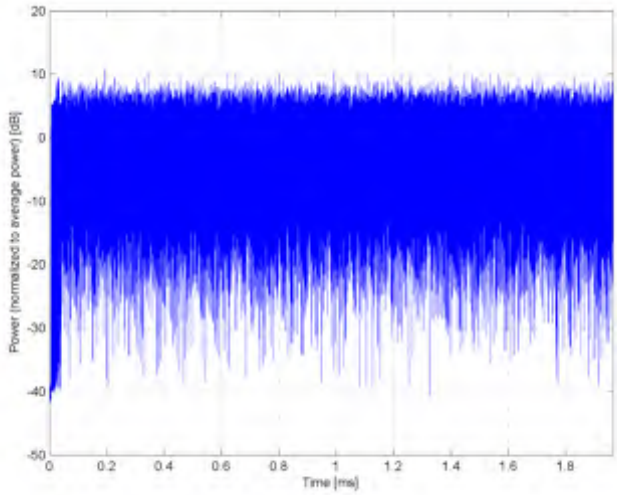
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



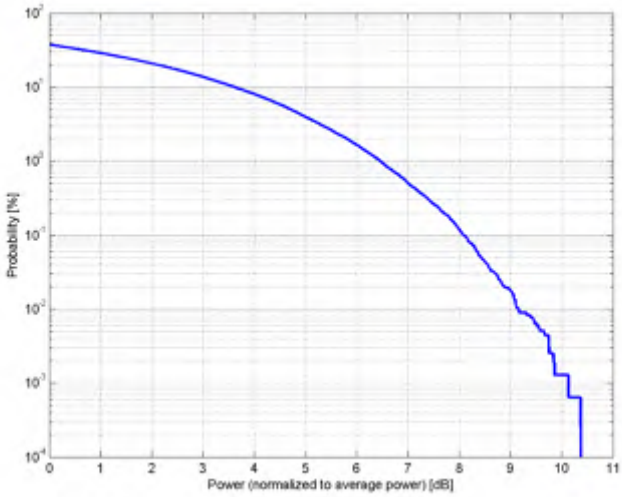
Time Domain

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

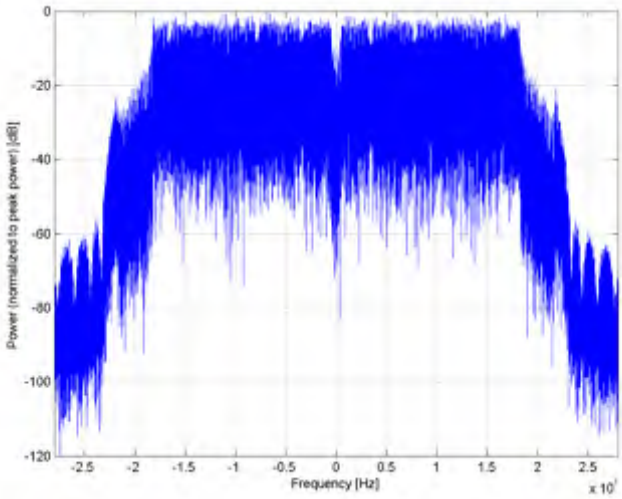
Name:	**IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)**
Group:	WLAN
UID:	10224-CAC
PAR: [1]	**8.08 dB**
MIF: [2]	**-17.01 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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:	Modulation: 64-QAM Data Rate: 150 Mbps PPDU Format: HT Mixed PPDU Type: 40 MHz MCS Index: 7 Guard Interval: Short Payload Length: 36008
Bandwidth:	40.0 MHz
Integration Time:	2.0 ms

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

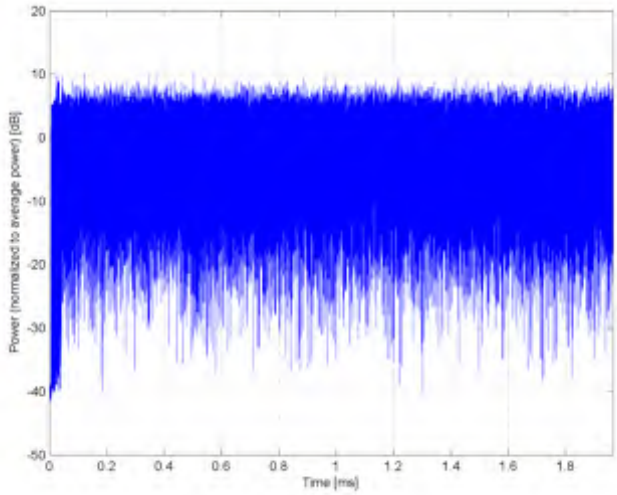
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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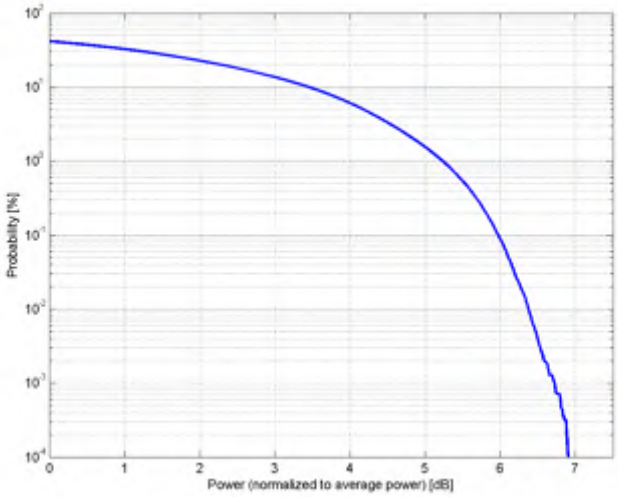
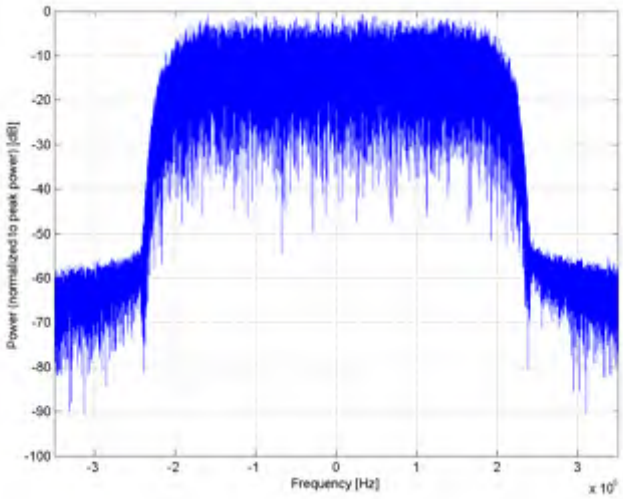
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**UMTS-FDD (HSPA+)**
Group:	WCDMA
UID:	10225-CAB
PAR: [1]	**5.97 dB**
MIF: [2]	**-20.39 dB**
Standard Reference:	3GPP Rel 7 TS 34.121 FCC OET KDB 941225 D01 SAR test for 3G devices v02 FCC OET KDB 941225 D02 Guidance for 3GPP R6 and R7 HSPA v02v01
Category:	Random amplitude modulation
Modulation:	16QAM
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:	12.2 kbps RMC, FRC H-Set 2 CQI value: 2 Sub-test 2 Conditions: DPCCH gain factor (Beta_c) = 6/15 DPDCH gain factor (Beta_d): 15/15 E-DPDCH Settings: Symbol Rate: 2x1960 Mbps Modulation 4PAM Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	100.0 ms

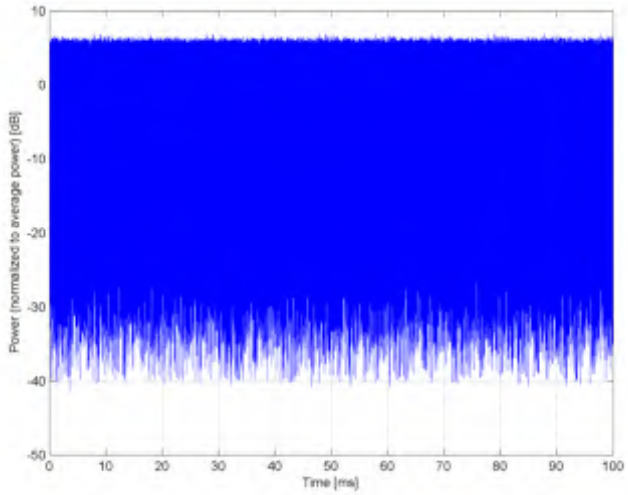
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

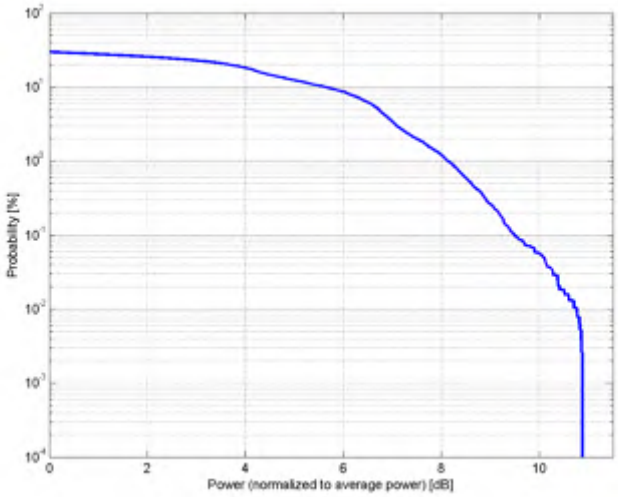


Time Domain

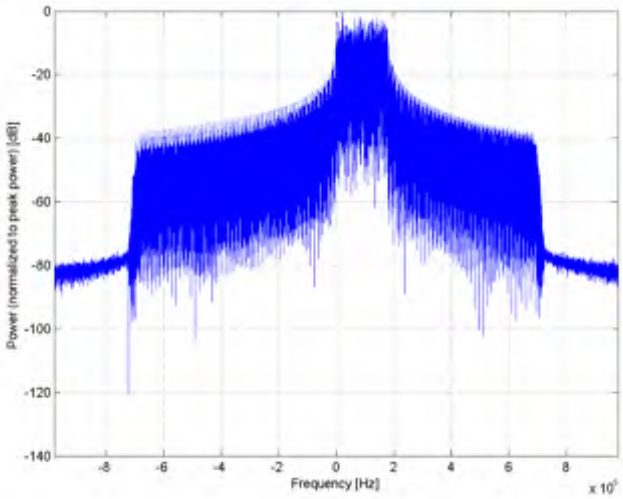
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10226-CAA
PAR: [1]	**9.49 dB**
MIF: [2]	**-1.44 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 1
	Start Number of RB: 3
	Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

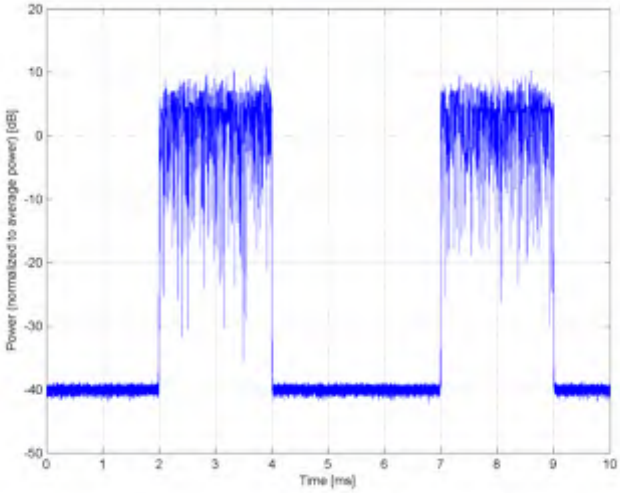
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

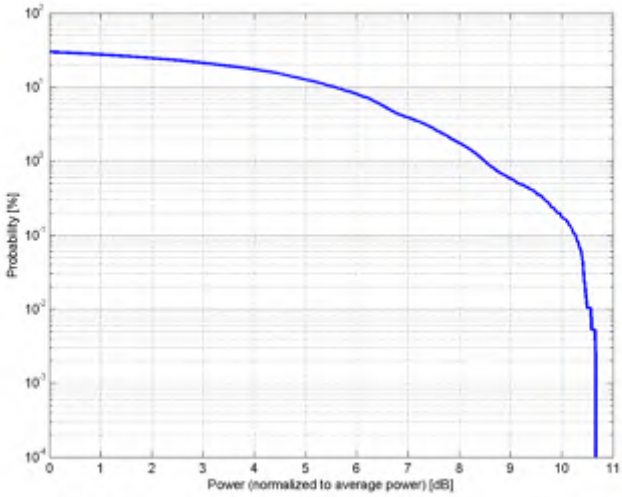


Time Domain

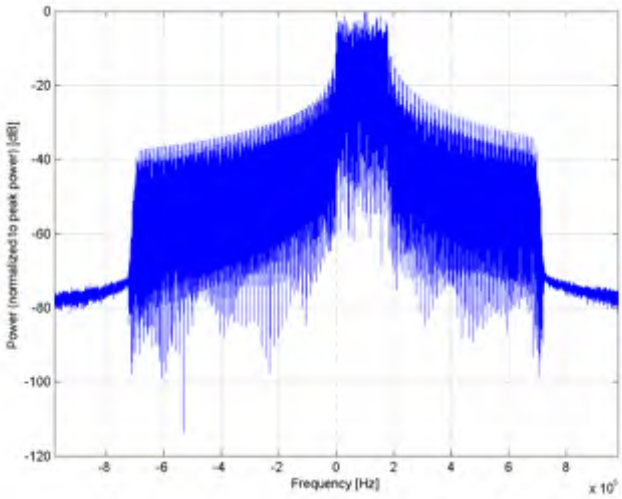
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10227-CAA
PAR: [1]	**10.26 dB**
MIF: [2]	**-1.54 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 64QAM
	Allocated RB: 1
	Start Number of RB: 3
	Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

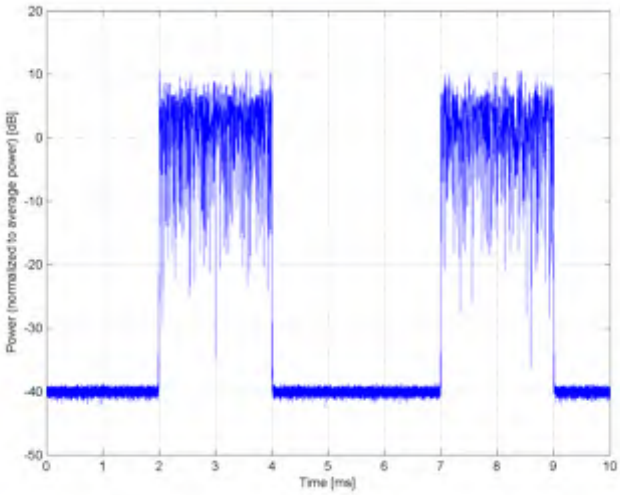
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

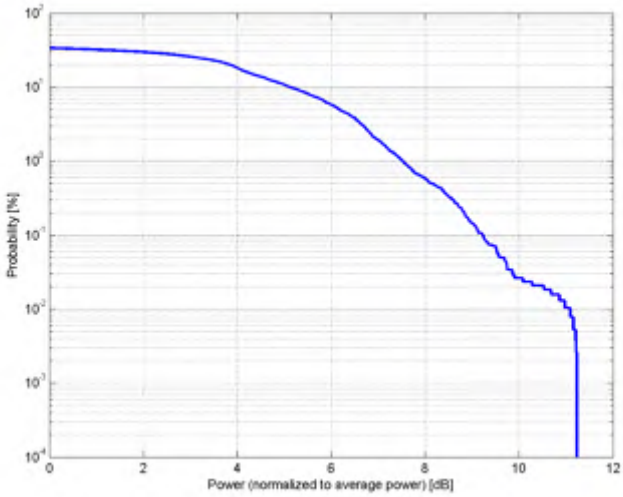


Time Domain

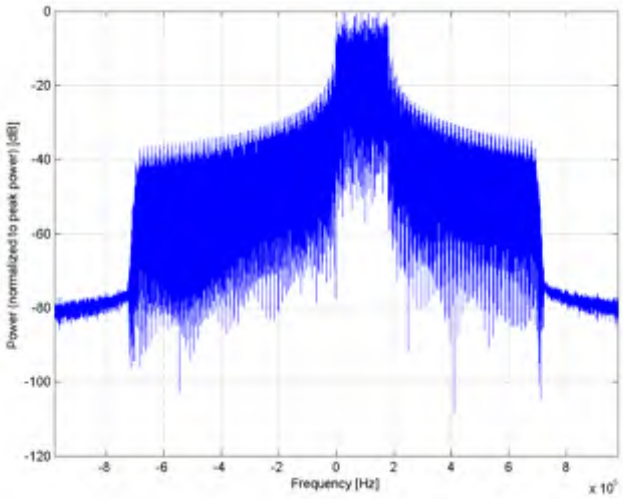
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)**
Group:	LTE-TDD
UID:	10228-CAA
PAR: [1]	**9.22 dB**
MIF: [2]	**-1.62 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	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

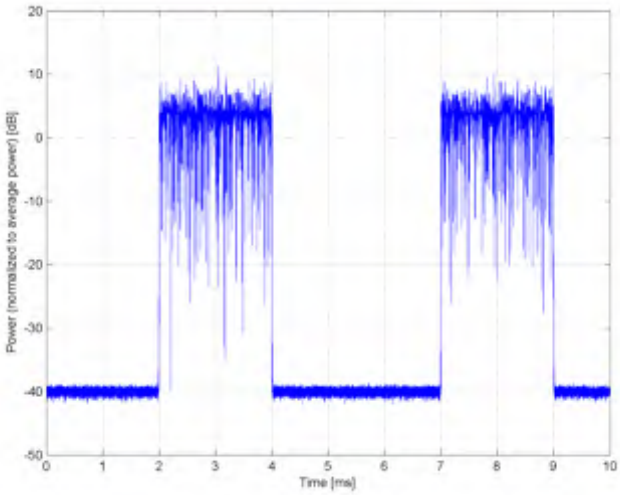
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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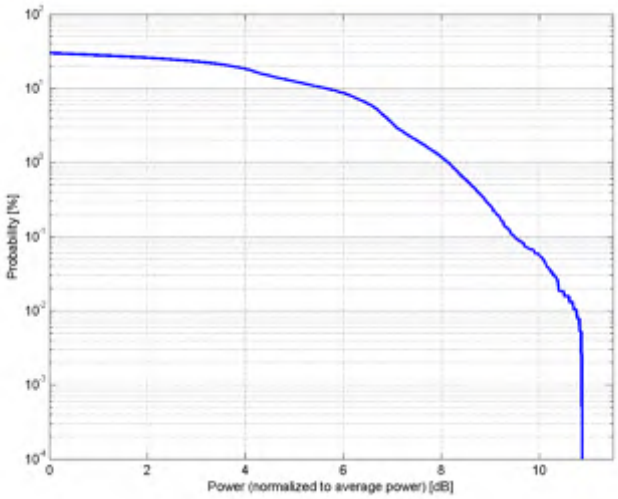
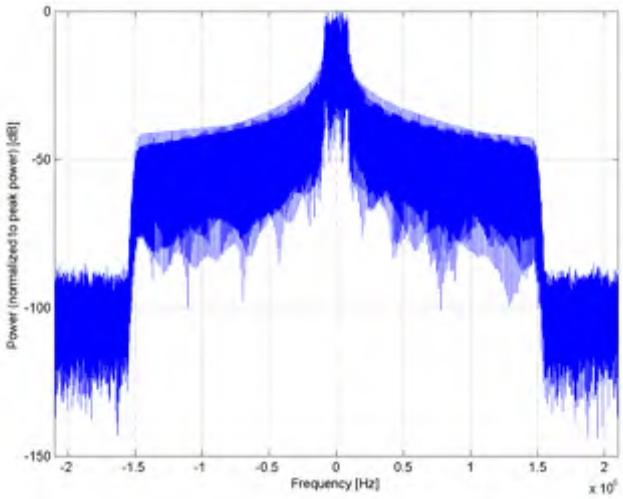
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10229-CAB
PAR: [1]	**9.48 dB**
MIF: [2]	**-1.44 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 1
	Start Number of RB: 7
	Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

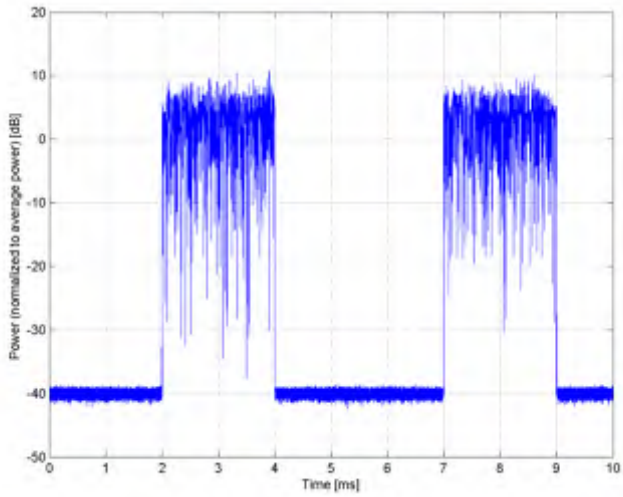
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

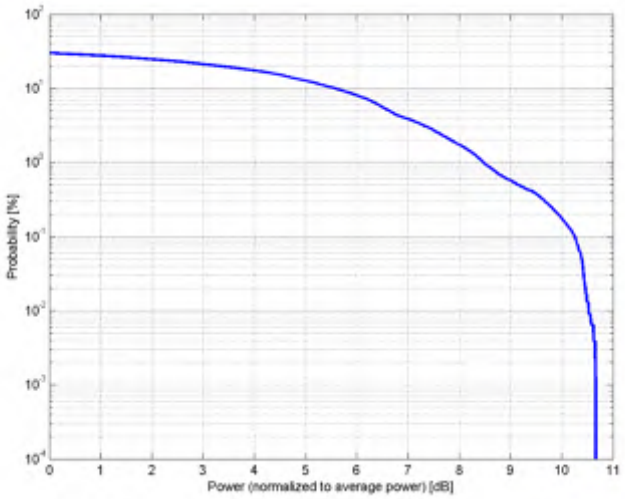


Time Domain

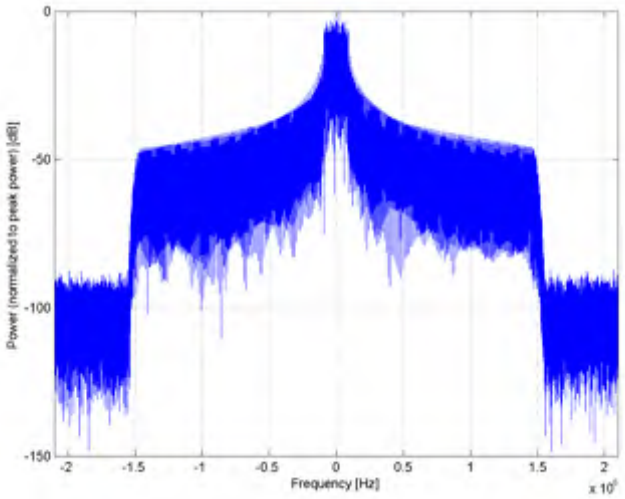
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10230-CAB
PAR: [1]	**10.25 dB**
MIF: [2]	**-1.54 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, 20150) Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151) Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 1 Start Number of RB: 7 Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

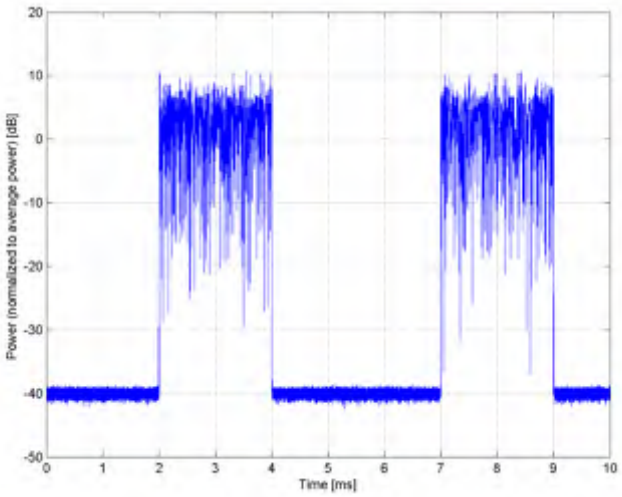
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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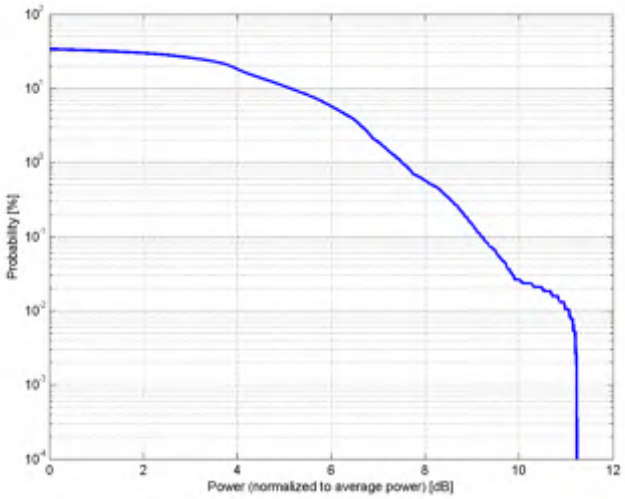
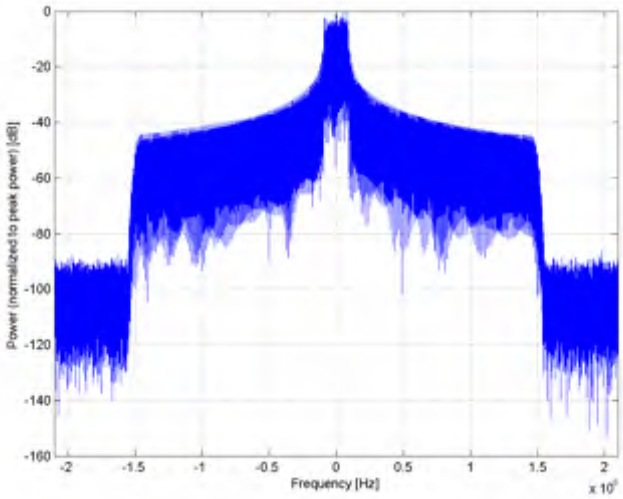
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)**
Group:	LTE-TDD
UID:	10231-CAB
PAR: [1]	**9.19 dB**
MIF: [2]	**-1.62 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, 20150) Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151) Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: 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

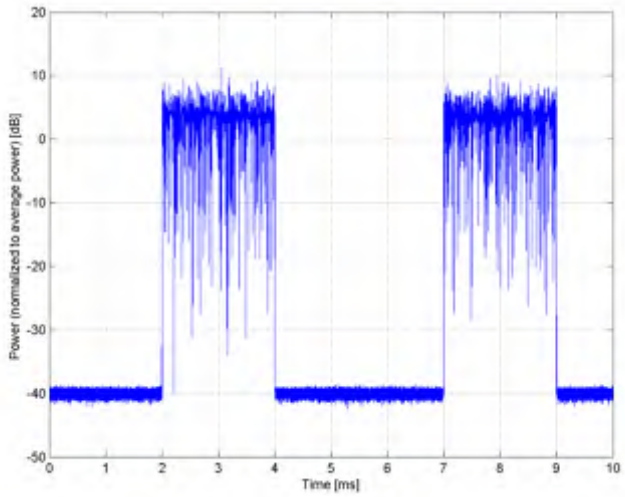
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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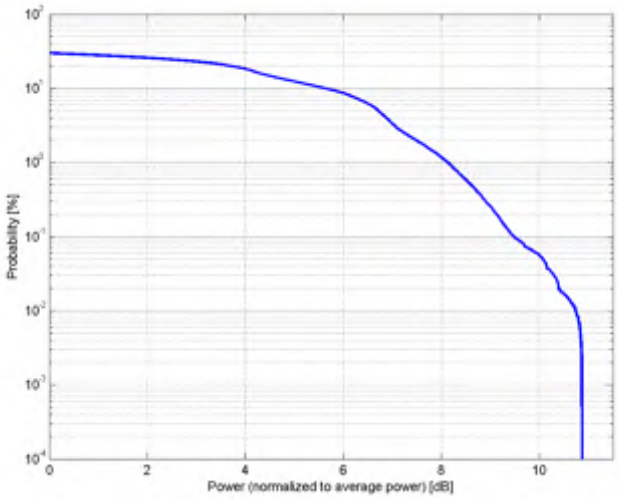
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

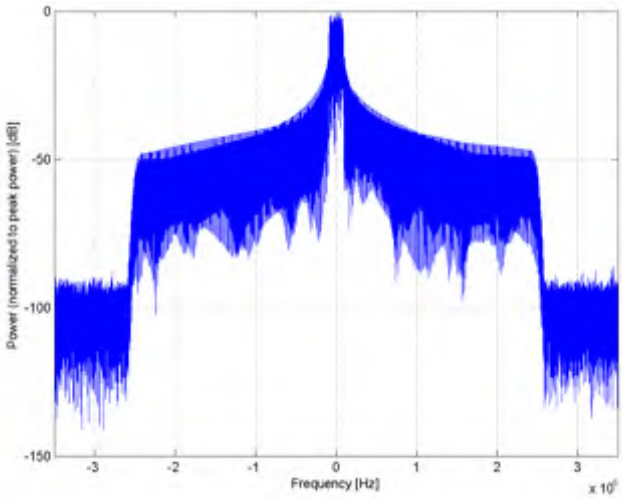
Name:	**LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10232-CAD
PAR: [1]	**9.48 dB**
MIF: [2]	**-1.44 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 1 Start Number of RB: 12 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

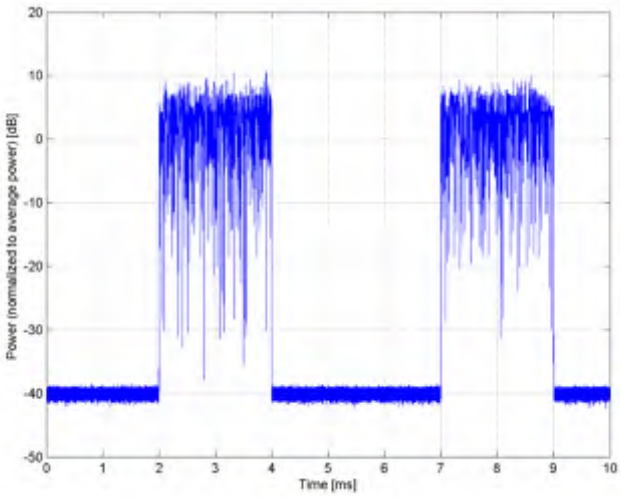
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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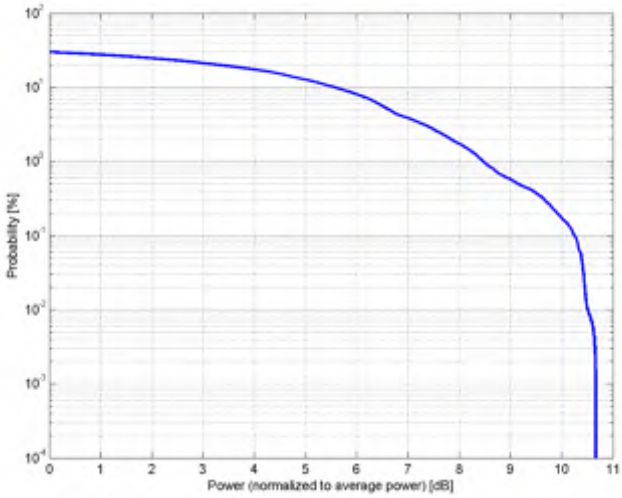
Zeughausstrasse 43, 8004 Zurich, Switzerland

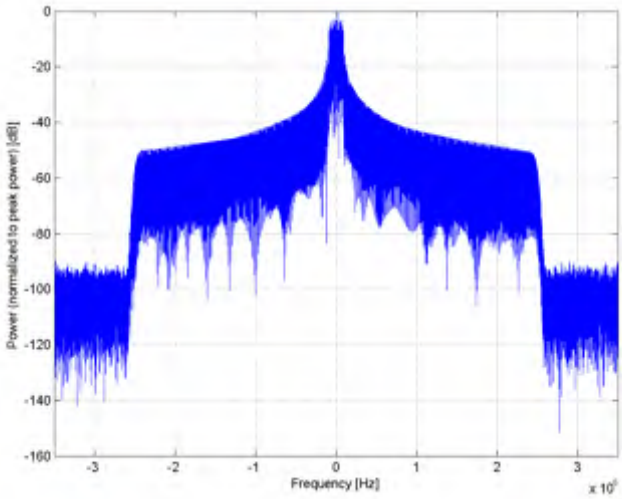
Name:	**LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10233-CAD
PAR: [1]	**10.25 dB**
MIF: [2]	**-1.54 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	64-QAM
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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64-QAM Allocated RB: 1 Start Number of RB: 12 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

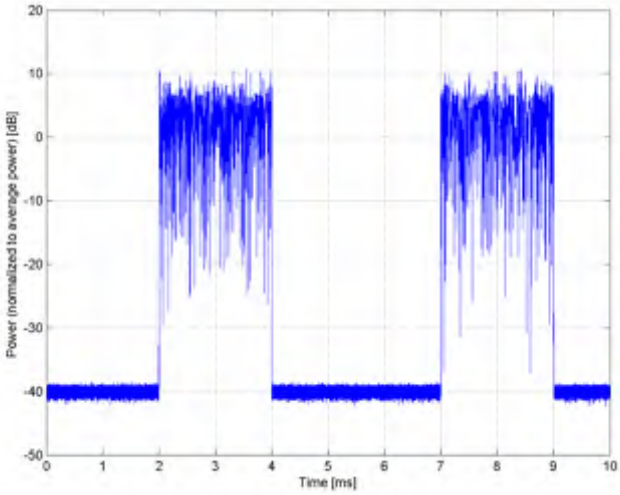
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



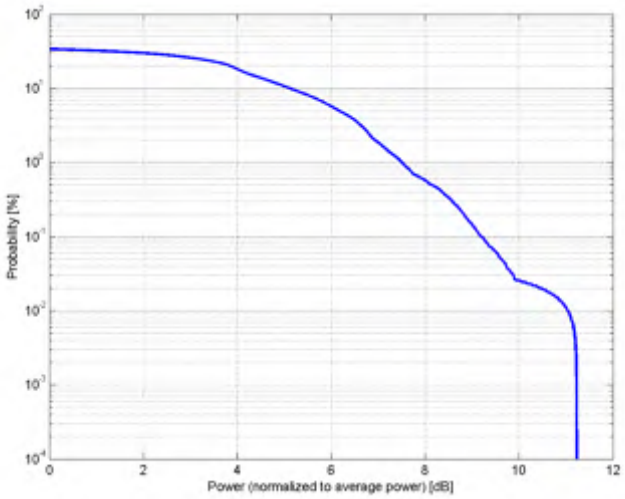
Time Domain

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

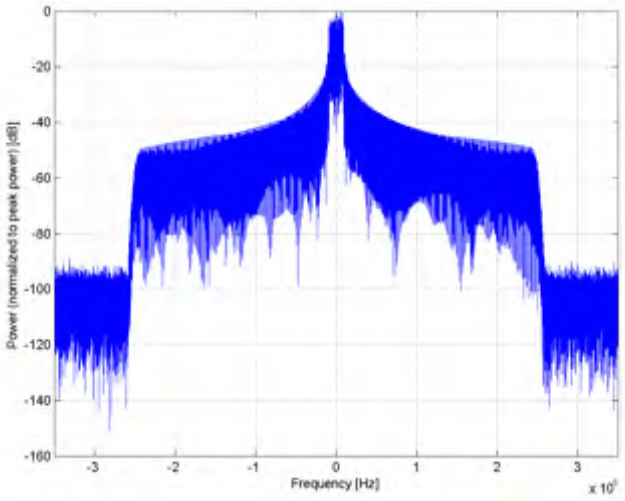
Name:	**LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)**
Group:	LTE-TDD
UID:	10234-CAD
PAR: [1]	**9.21 dB**
MIF: [2]	**-1.62 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
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 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: 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

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

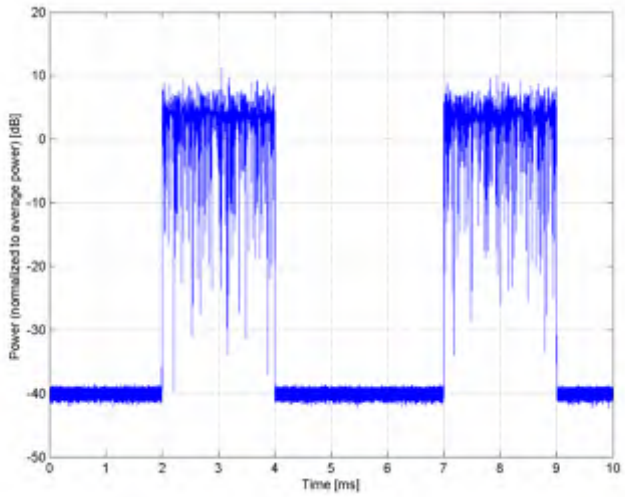
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



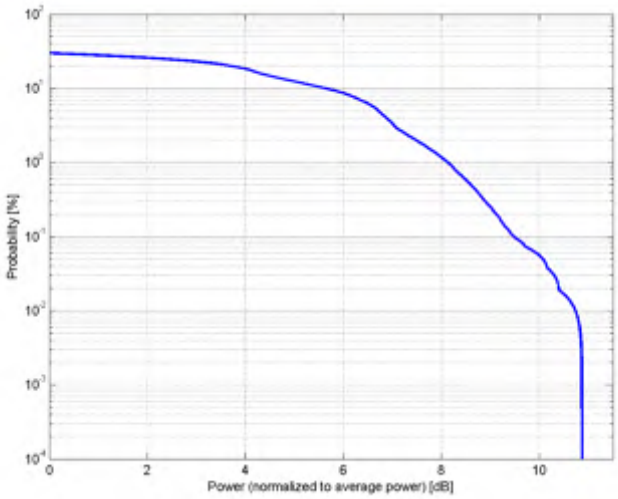
Time Domain

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

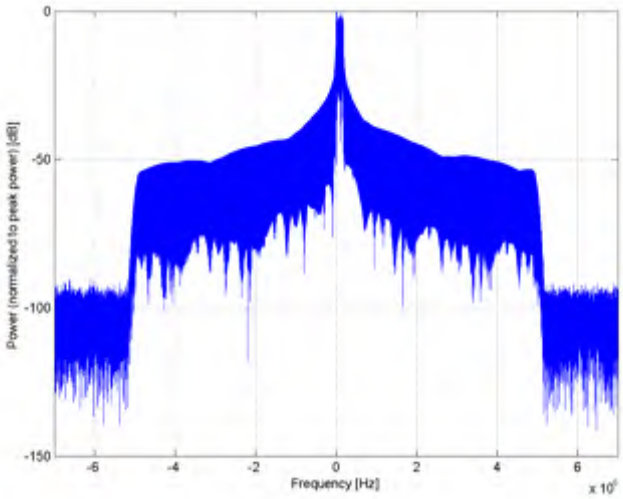
Name:	**LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10235-CAD
PAR: [1]	**9.48 dB**
MIF: [2]	**-1.44 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 1 Start Number of RB: 25 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

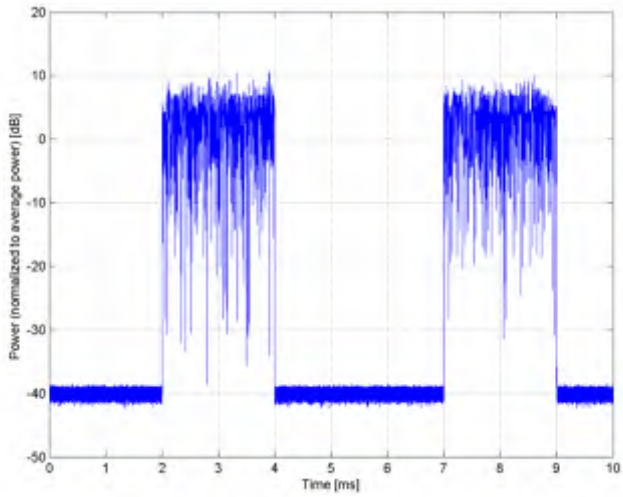
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

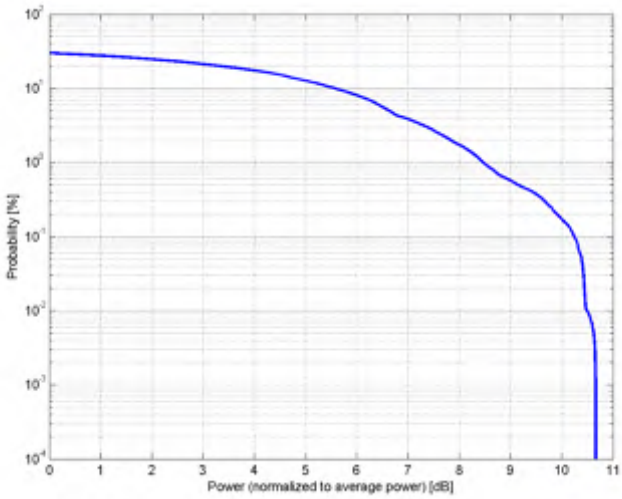


Time Domain

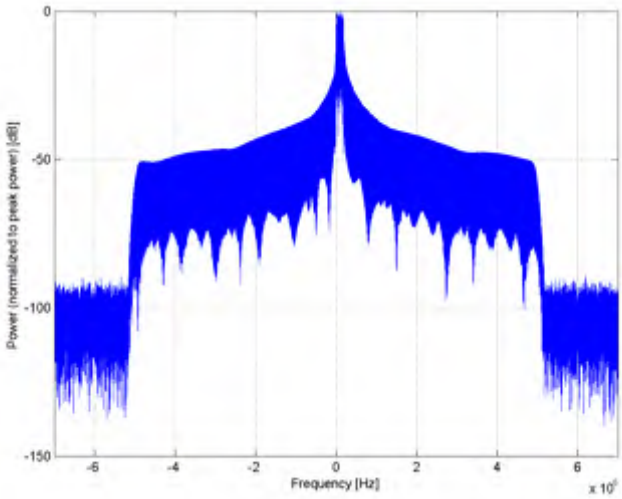
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10236-CAD
PAR: [1]	**10.25 dB**
MIF: [2]	**-1.54 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 1 Start Number of RB: 25 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

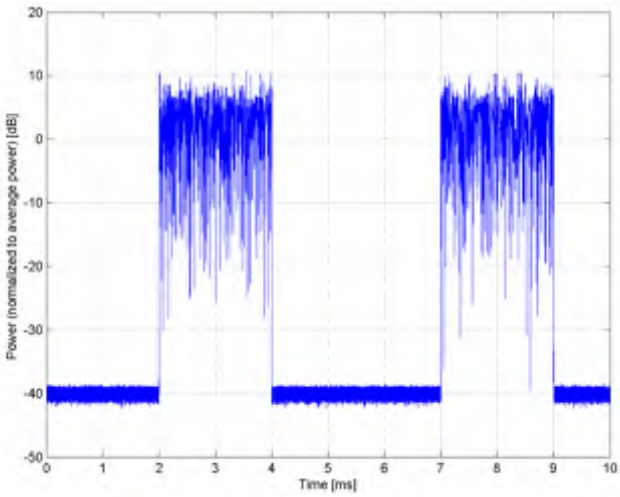
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

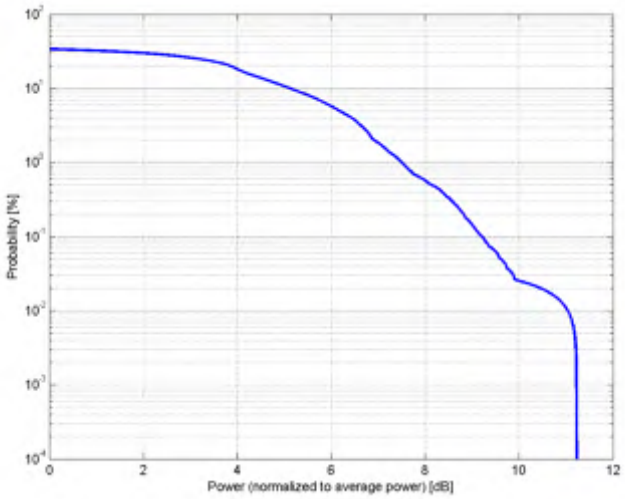


Time Domain

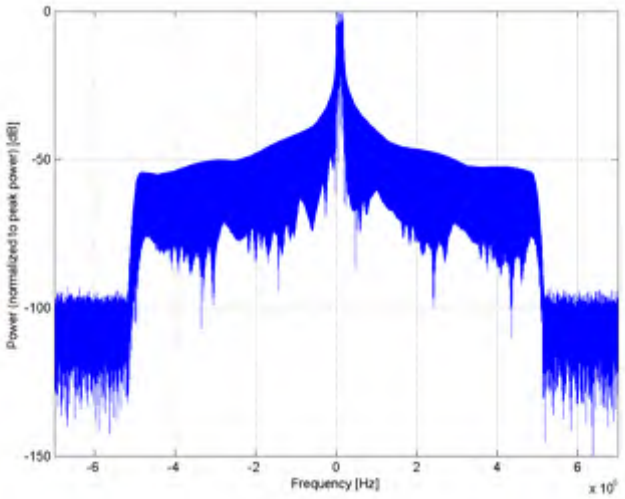
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)**
Group:	LTE-TDD
UID:	10237-CAD
PAR: [1]	**9.21 dB**
MIF: [2]	**-1.62 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: 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

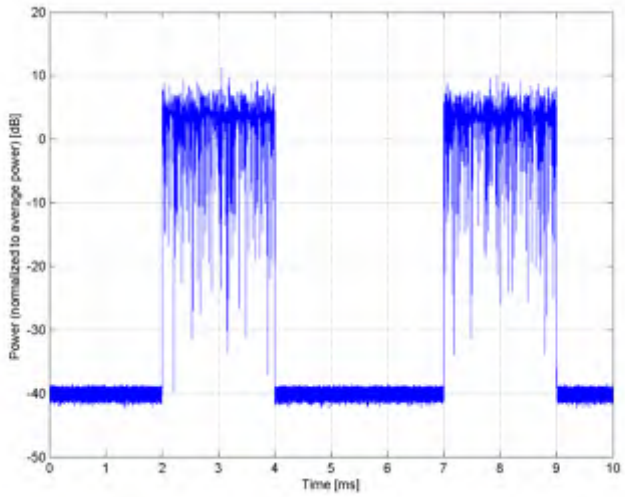
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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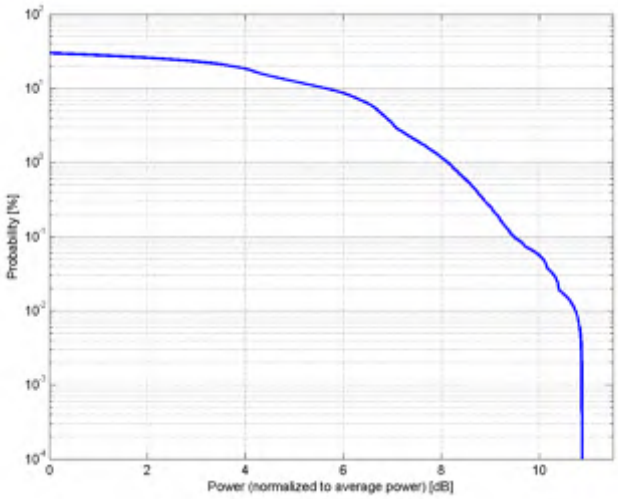
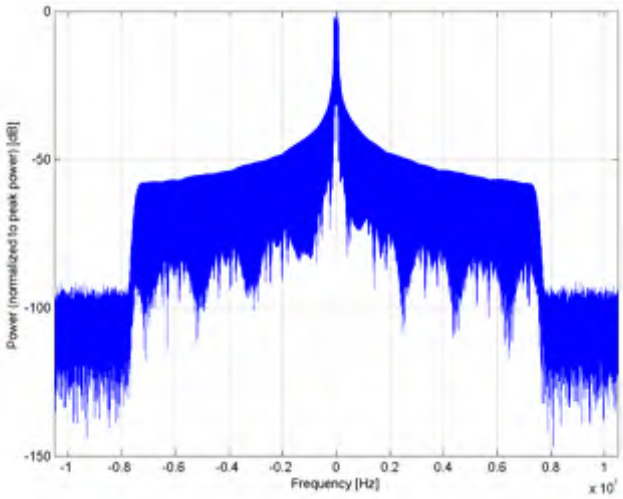
Name:	**LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10238-CAD
PAR: [1]	**9.48 dB**
MIF: [2]	**-1.44 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 1 Start Number of RB: 37 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

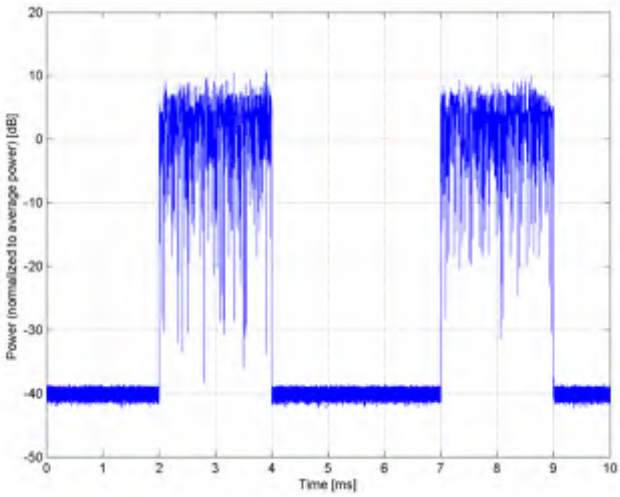
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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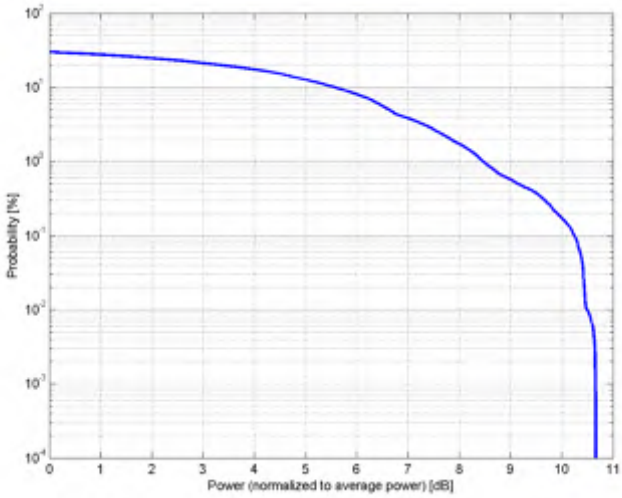
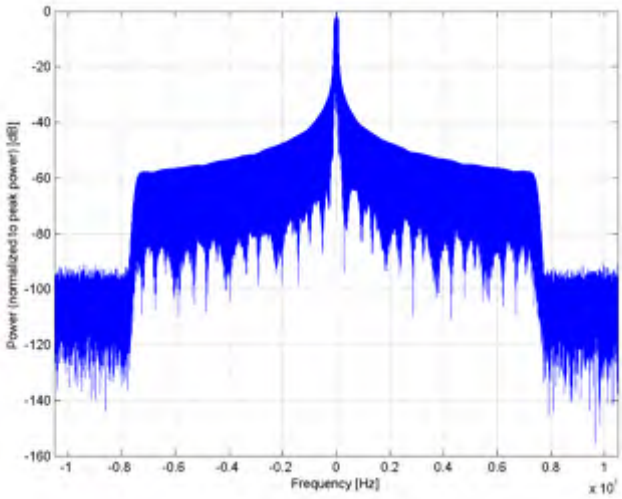
Name:	**LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10239-CAD
PAR: [1]	**10.25 dB**
MIF: [2]	**-1.54 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 1 Start Number of RB: 37 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

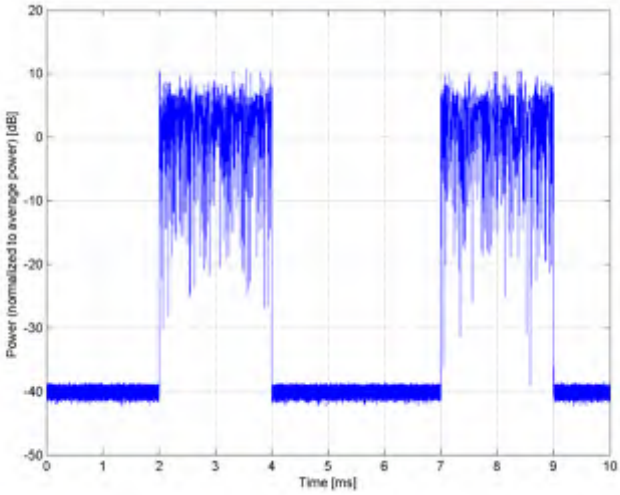
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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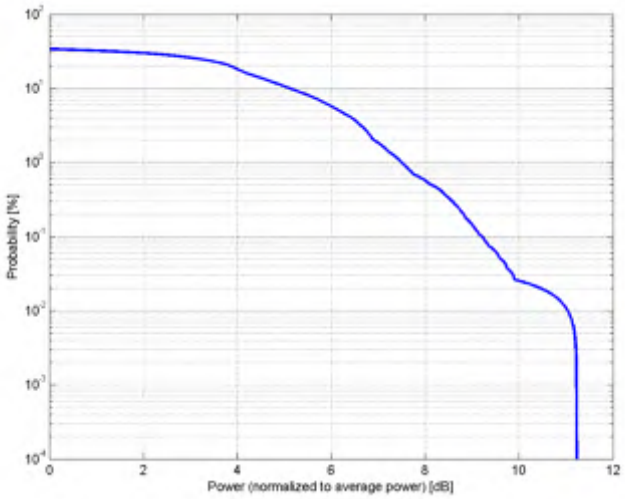
Zeughausstrasse 43, 8004 Zurich, Switzerland

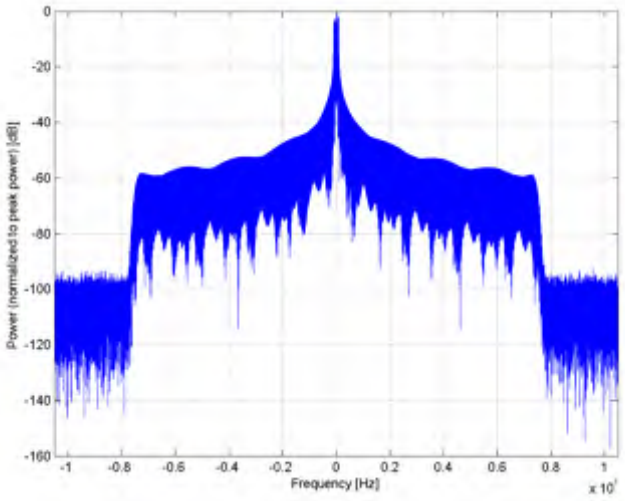
Name:	**LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)**
Group:	LTE-TDD
UID:	10240-CAD
PAR: [1]	**9.21 dB**
MIF: [2]	**-1.62 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
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 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: 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

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

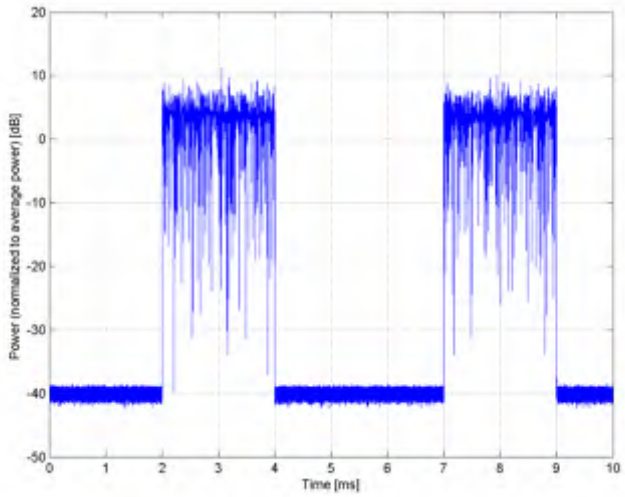
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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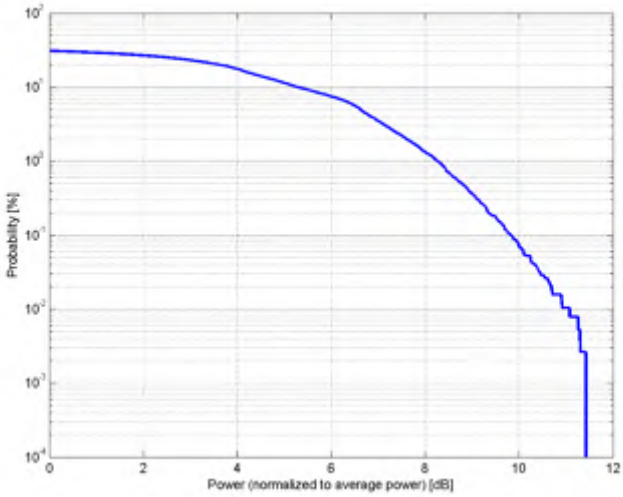
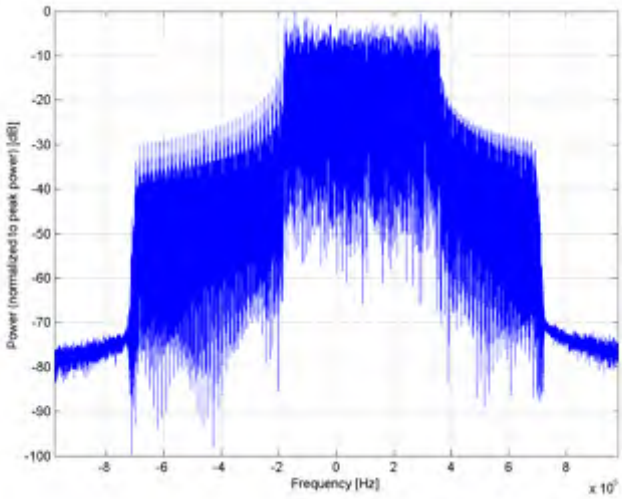
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 50 % RB, 1.4 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10241-CAA
PAR: [1]	**9.82 dB**
MIF: [2]	**-1.58 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 3
	Start Number of RB: 2
	Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

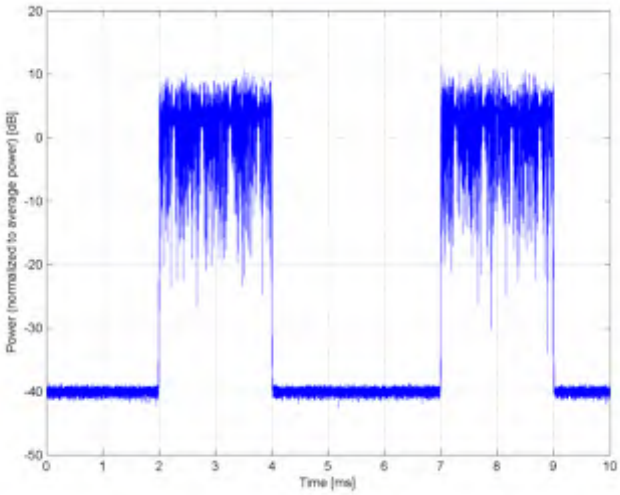
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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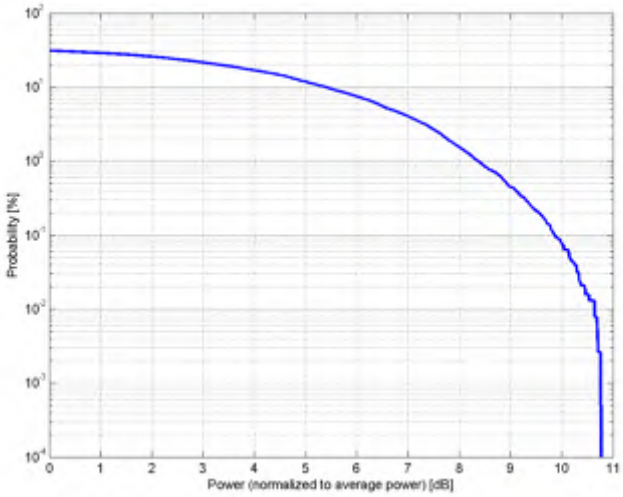
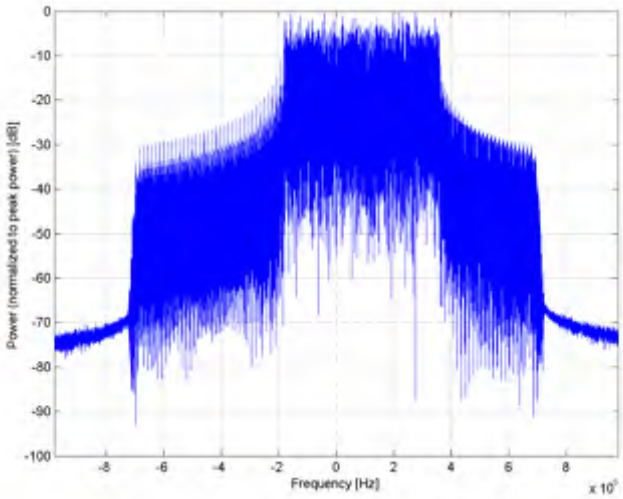
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 50 % RB, 1.4 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10242-CAA
PAR: [1]	**9.86 dB**
MIF: [2]	**-1.57 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 64QAM
	Allocated RB: 3
	Start Number of RB: 2
	Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

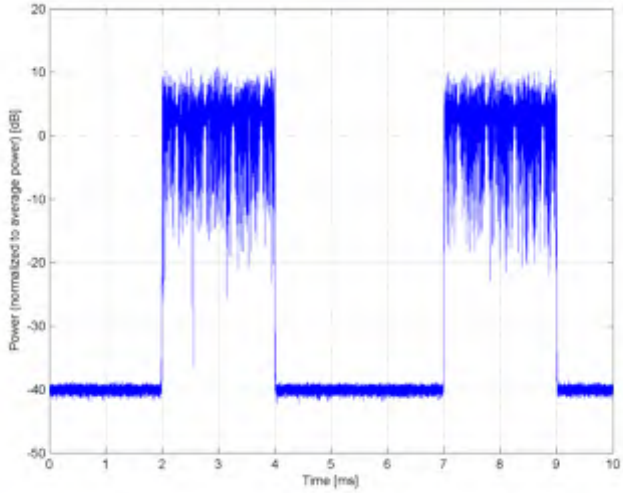
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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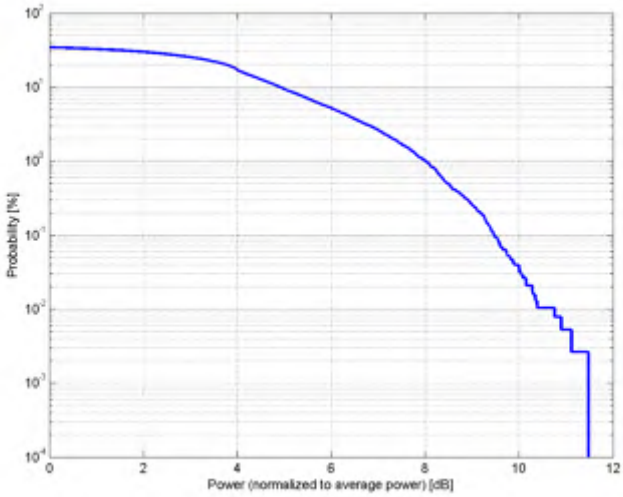
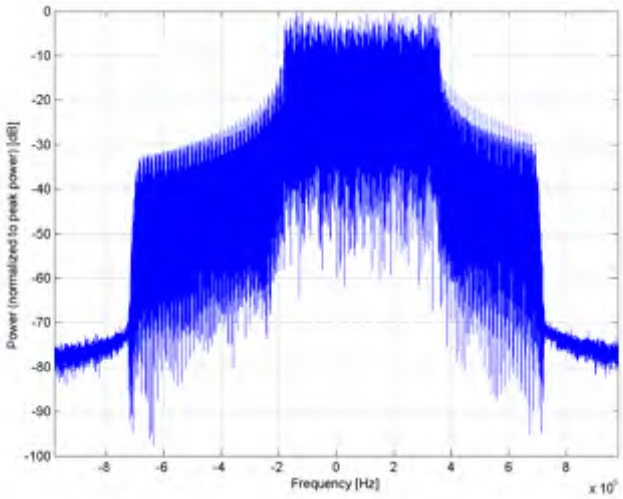
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 50 % RB, 1.4 MHz, QPSK)**
Group:	LTE-TDD
UID:	10243-CAA
PAR: [1]	**9.46 dB**
MIF: [2]	**-1.65 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	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

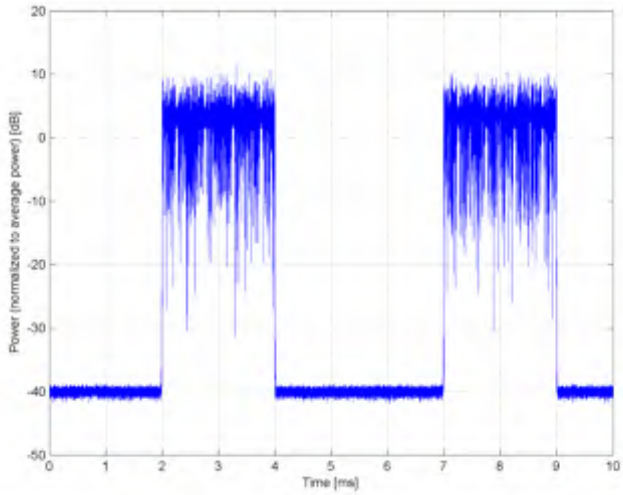
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

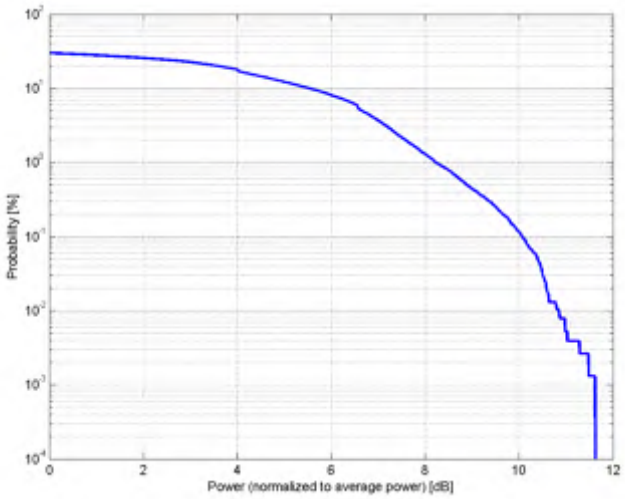


Time Domain

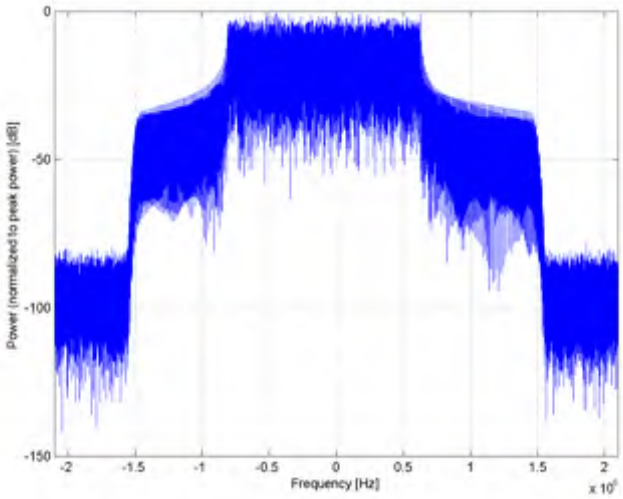
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 50 % RB, 3 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10244-CAB
PAR: [1]	**10.06 dB**
MIF: [2]	**-1.65 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 8
	Start Number of RB: 3
	Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

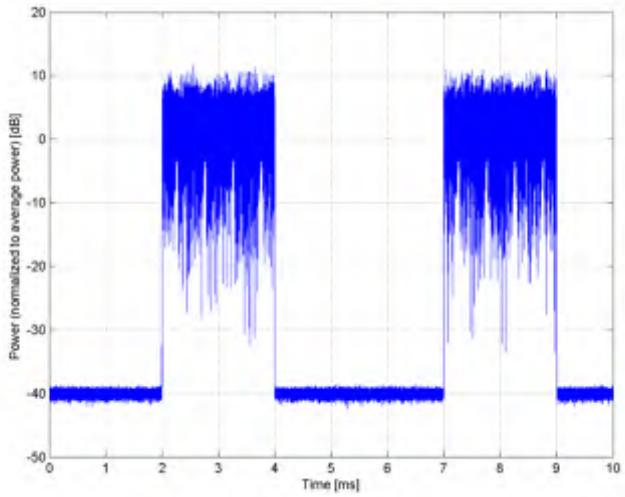
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

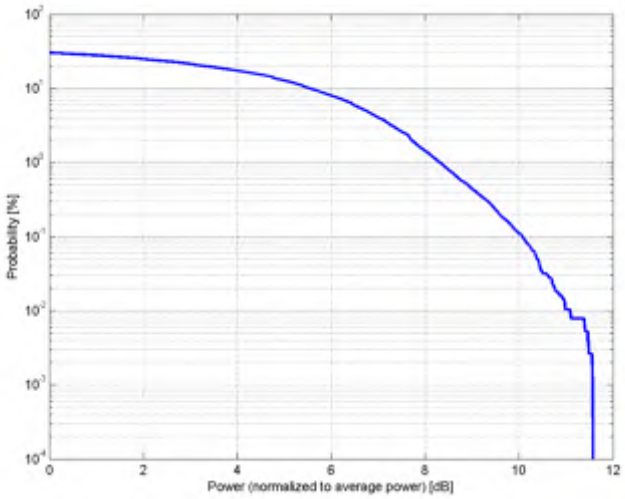


Time Domain

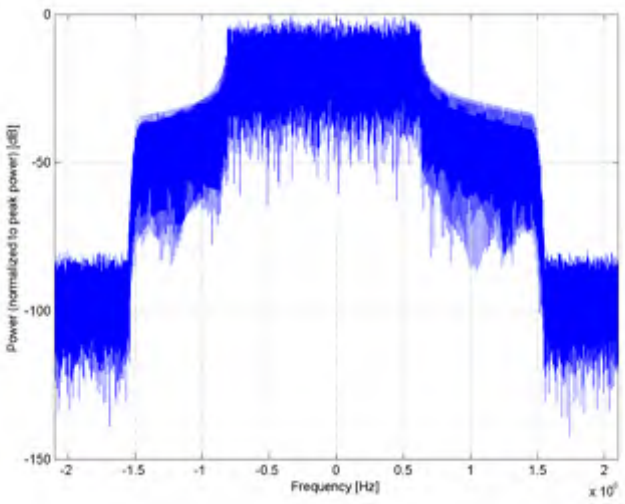
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 50 % RB, 3 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10245-CAB
PAR: [1]	**10.06 dB**
MIF: [2]	**-1.68 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 64QAM
	Allocated RB: 8
	Start Number of RB: 4
	Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

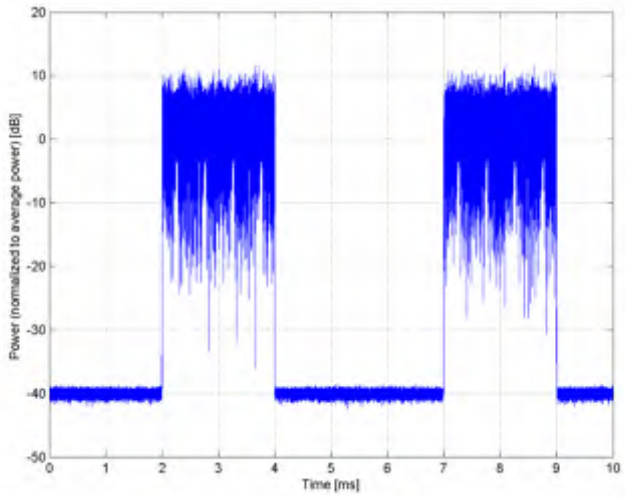
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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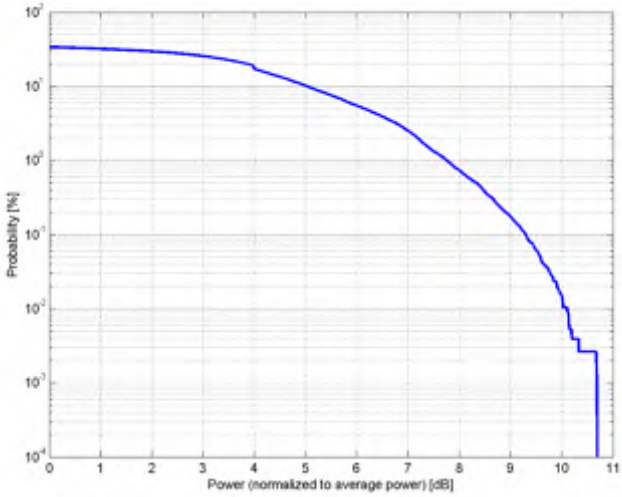
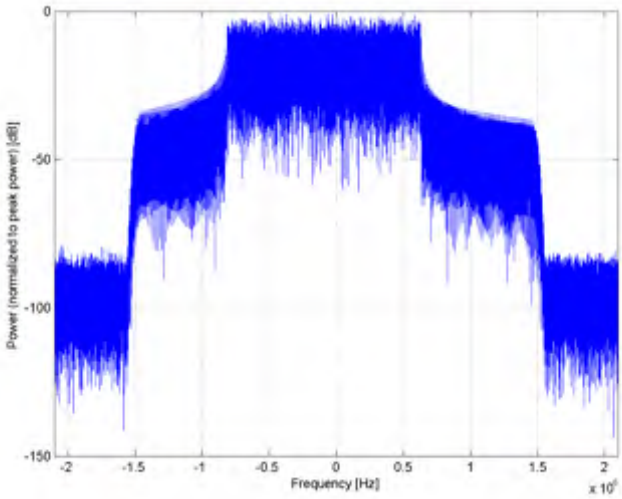
Name:	**LTE-TDD (SC-FDMA, 50 % RB, 3 MHz, QPSK)**
Group:	LTE-TDD
UID:	10246-CAB
PAR: [1]	**9.30 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150) Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151) Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 8 Start Number of RB: 4 Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

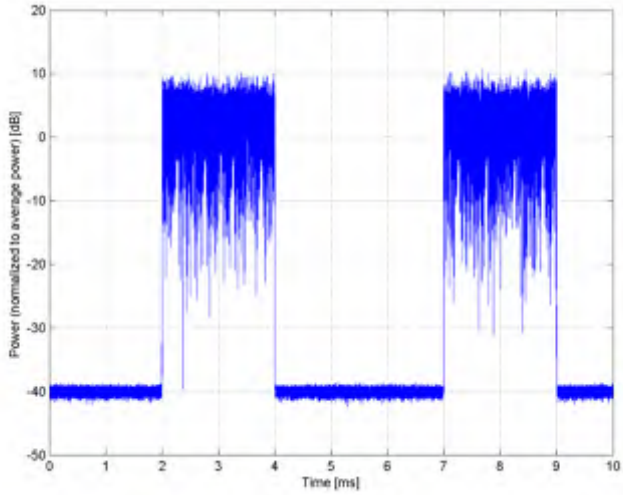
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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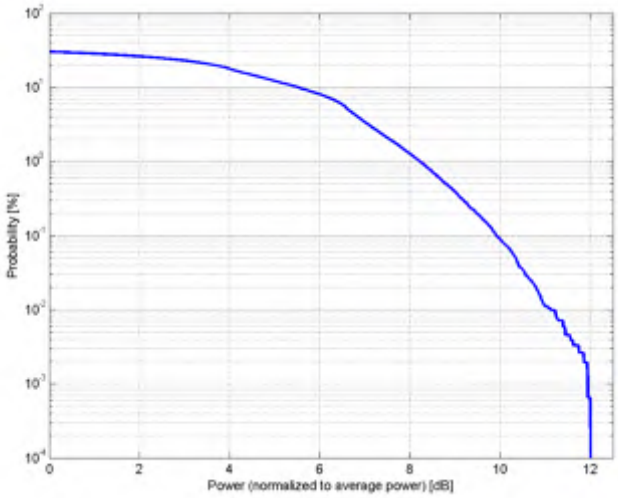
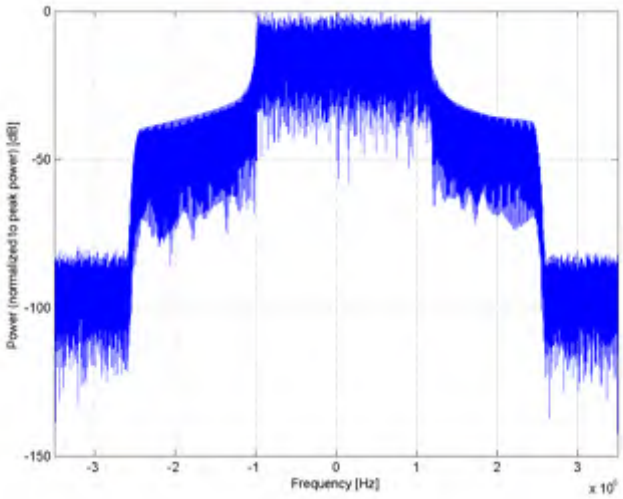
Name:	**LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10247-CAD
PAR: [1]	**9.91 dB**
MIF: [2]	**-1.67 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 12 Start Number of RB: 7 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

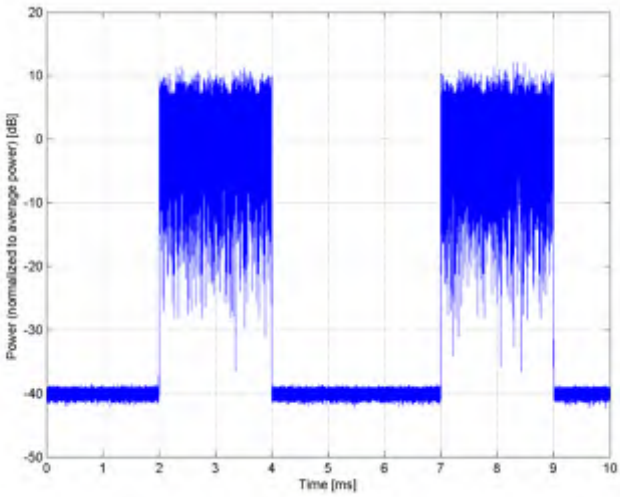
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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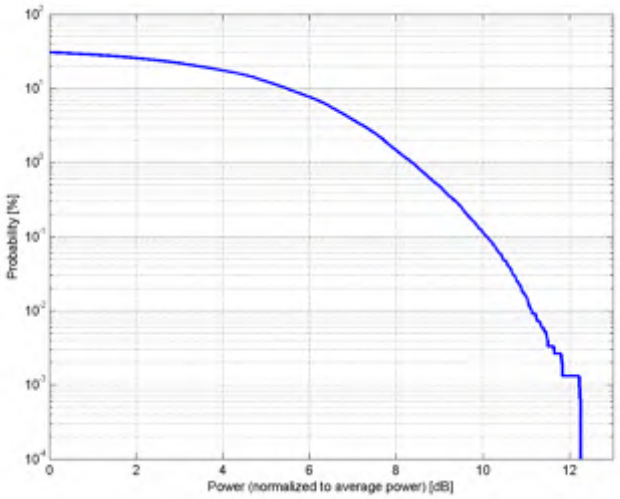
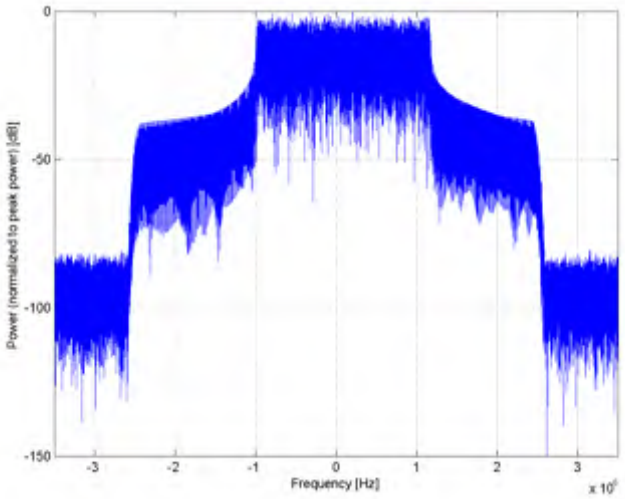
Name:	**LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10248-CAD
PAR: [1]	**10.09 dB**
MIF: [2]	**-1.66 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 12 Start Number of RB: 7 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

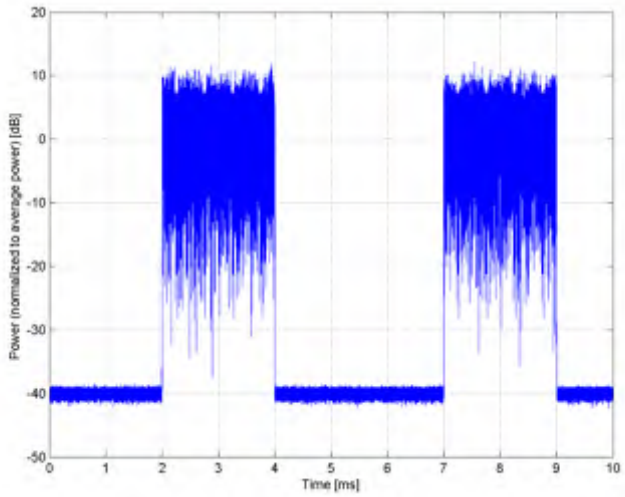
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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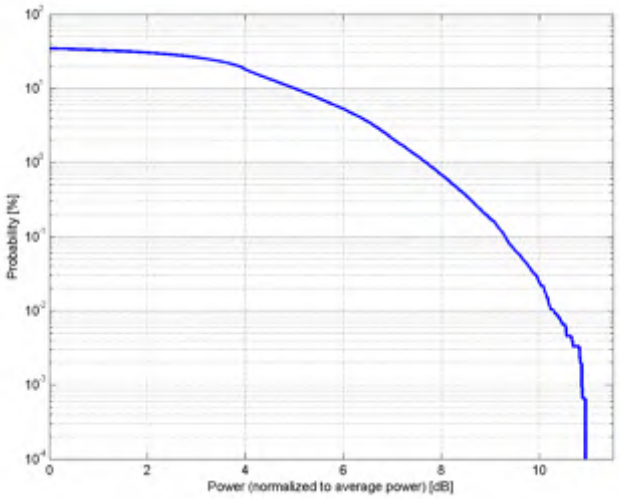
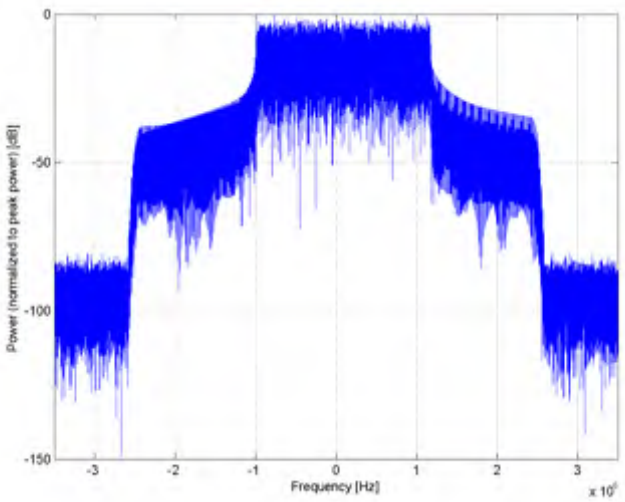
Name:	**LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)**
Group:	LTE-TDD
UID:	10249-CAD
PAR: [1]	**9.29 dB**
MIF: [2]	**-1.64 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
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 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: 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

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

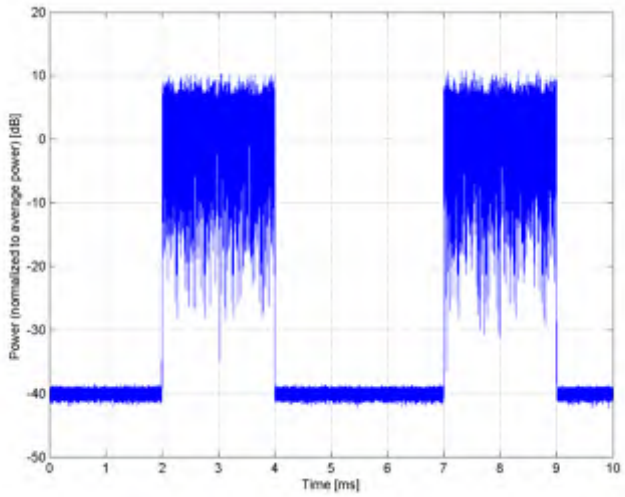
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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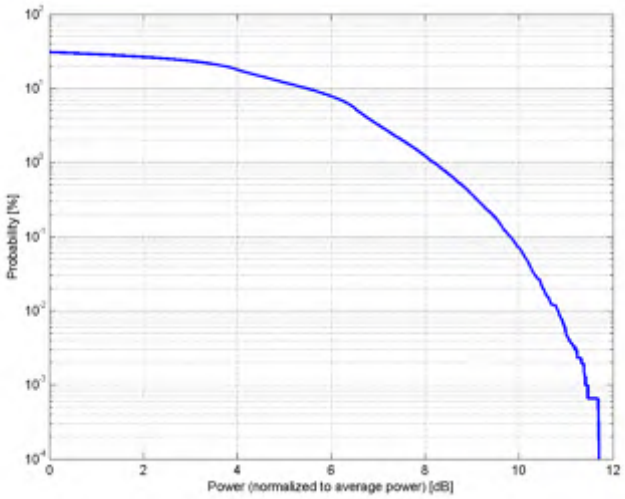
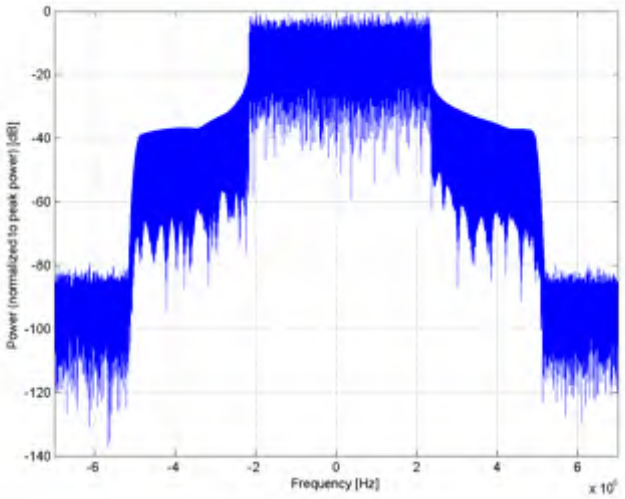
Name:	**LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10250-CAD
PAR: [1]	**9.81 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 25 Start Number of RB: 13 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

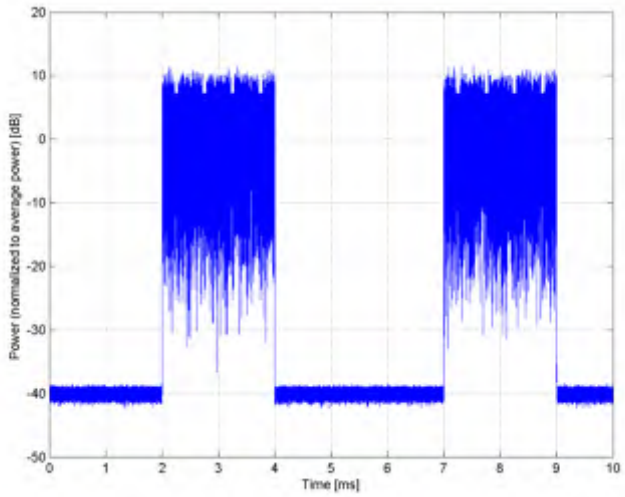
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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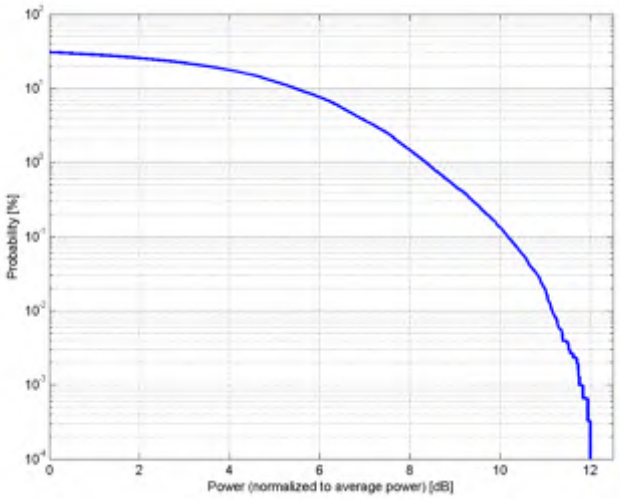
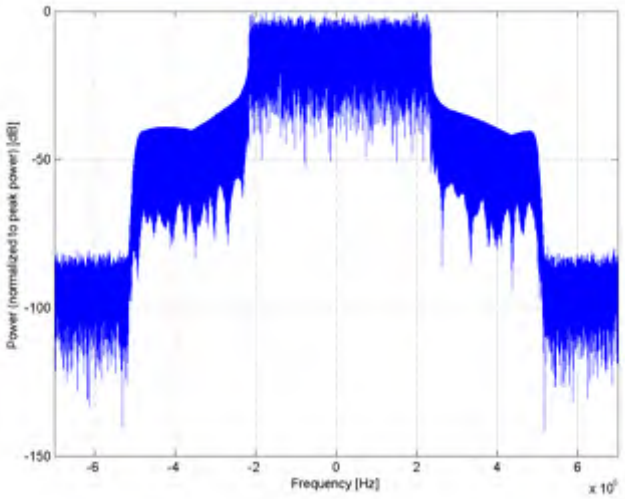
Name:	**LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10251-CAD
PAR: [1]	**10.17 dB**
MIF: [2]	**-1.67 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 25 Start Number of RB: 13 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

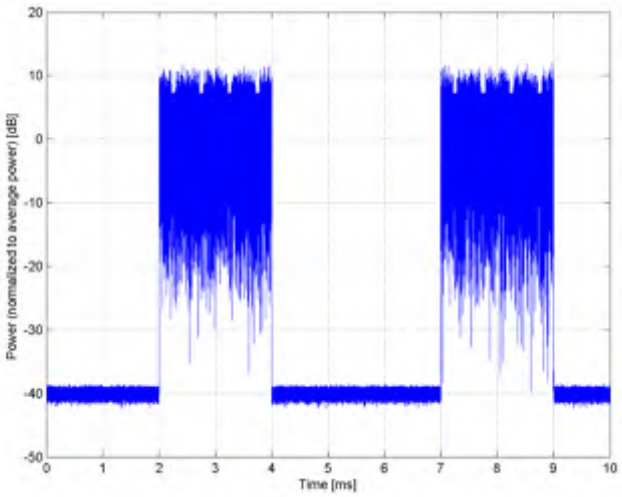
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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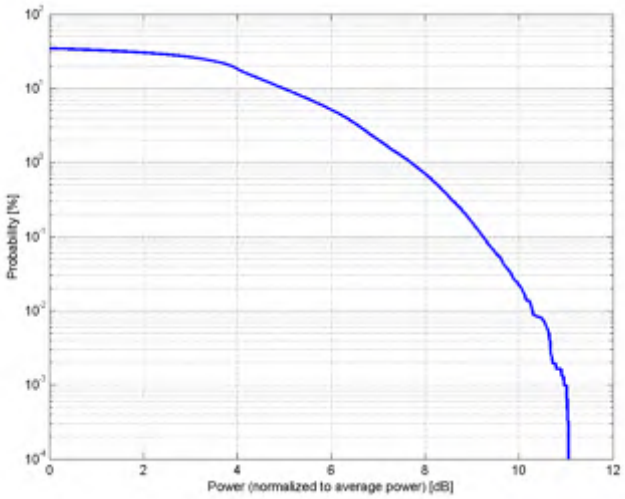
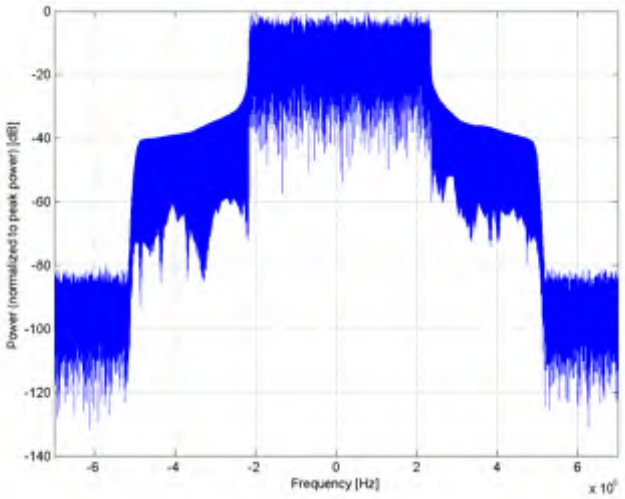
Name:	**LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)**
Group:	LTE-TDD
UID:	10252-CAD
PAR: [1]	**9.24 dB**
MIF: [2]	**-1.64 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 25 Start Number of RB: 13 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

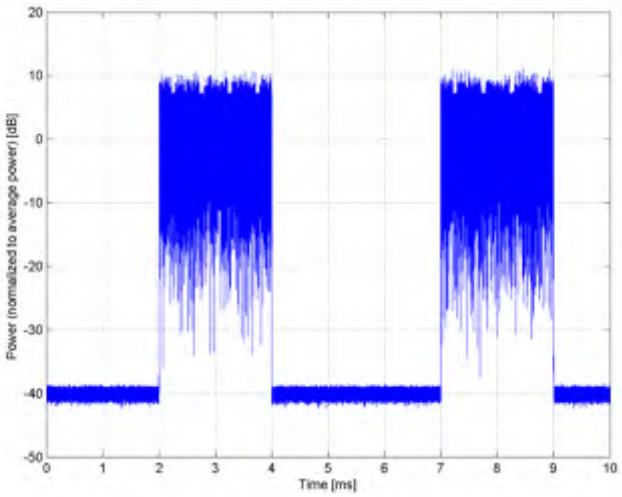
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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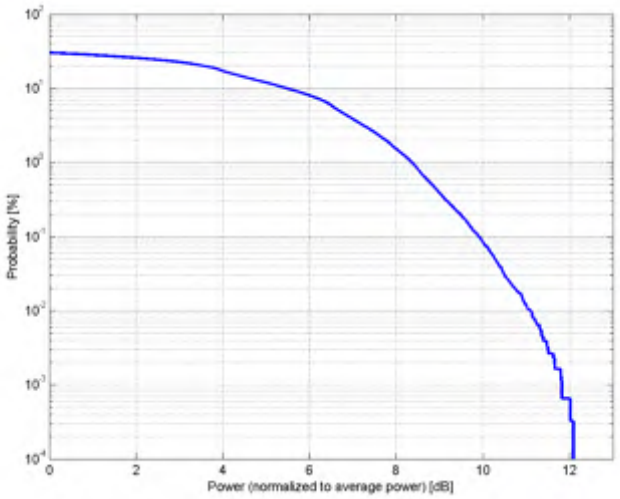
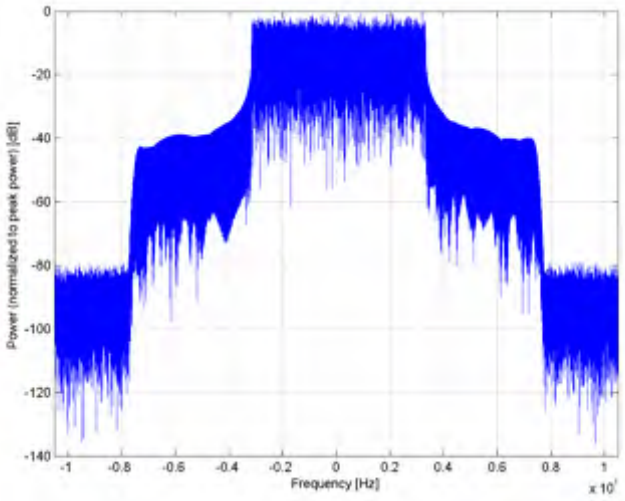
Name:	**LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10253-CAD
PAR: [1]	**9.90 dB**
MIF: [2]	**-1.67 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 36 Start Number of RB: 20 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

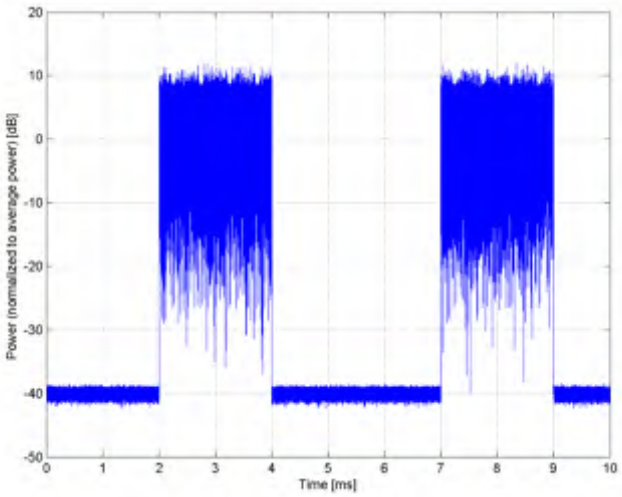
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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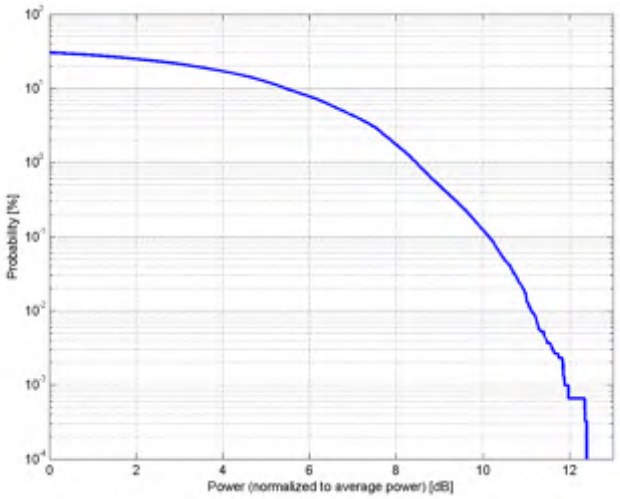
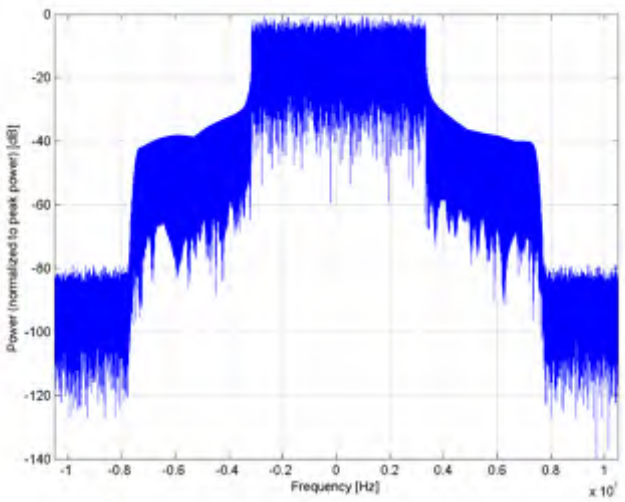
Name:	**LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10254-CAD
PAR: [1]	**10.14 dB**
MIF: [2]	**-1.67 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 36 Start Number of RB: 20 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

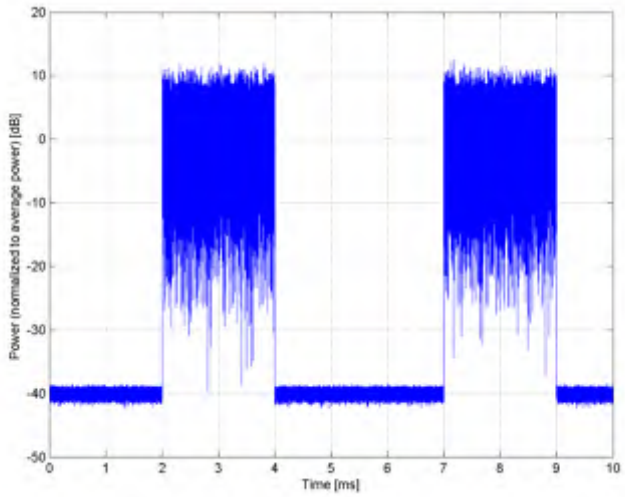
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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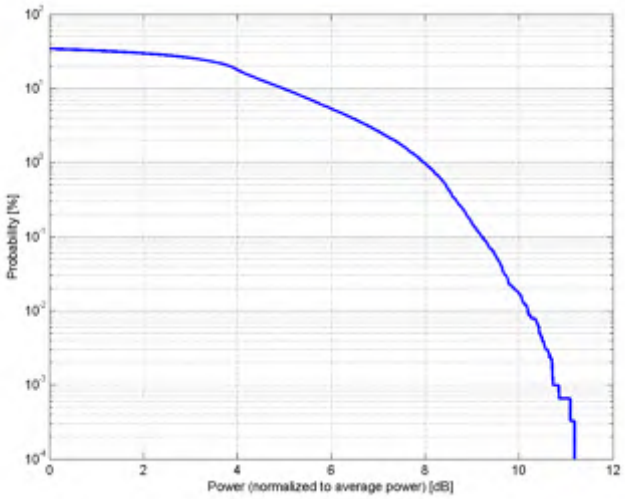
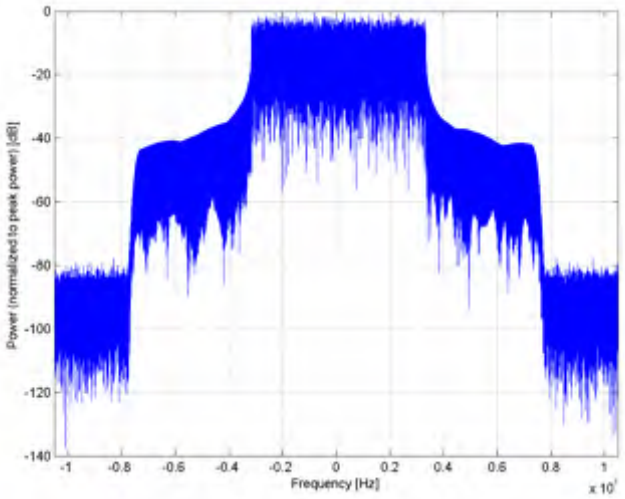
Name:	**LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)**
Group:	LTE-TDD
UID:	10255-CAD
PAR: [1]	**9.20 dB**
MIF: [2]	**-1.64 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
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 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 36 Start Number of RB: 20 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

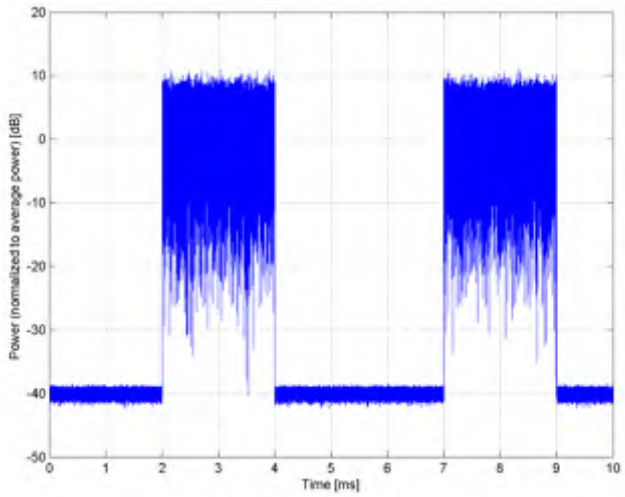
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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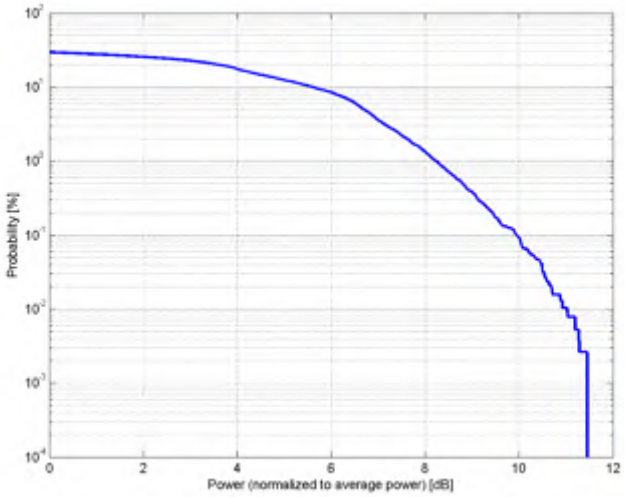
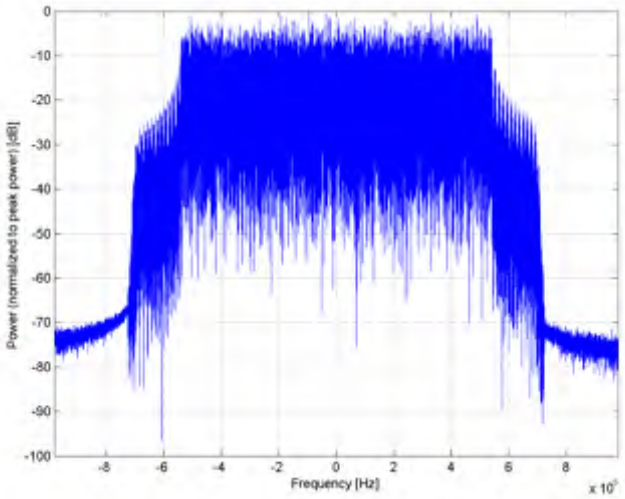
Name:	**LTE-TDD (SC-FDMA, 100 % RB, 1.4 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10256-CAA
PAR: [1]	**9.96 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 6
	Start Number of RB: 0
	Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

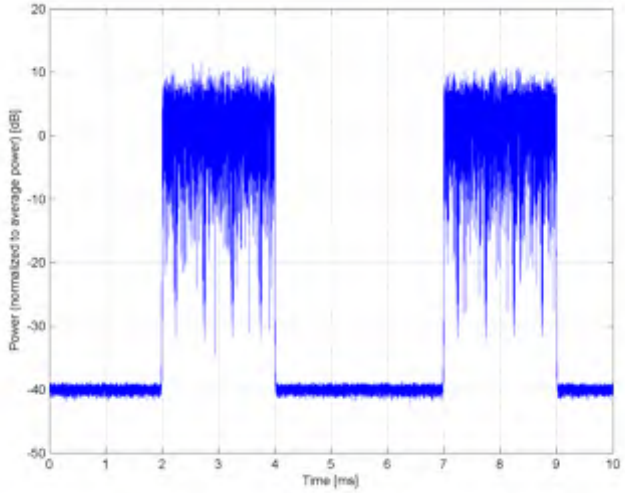
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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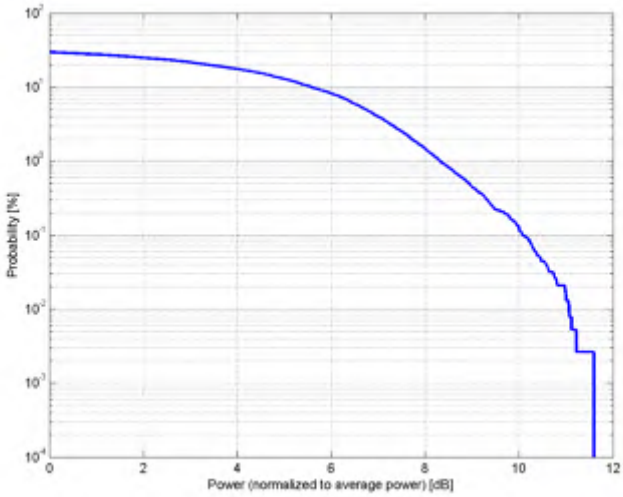
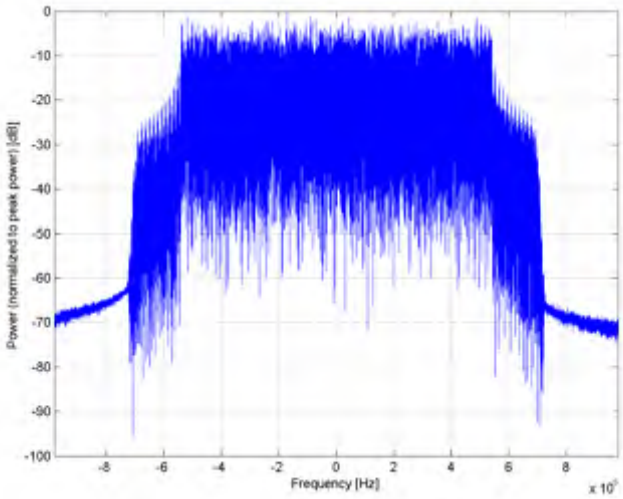
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 100 % RB, 1.4 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10257-CAA
PAR: [1]	**10.08 dB**
MIF: [2]	**-1.64 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 6
	Start Number of RB: 0
	Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

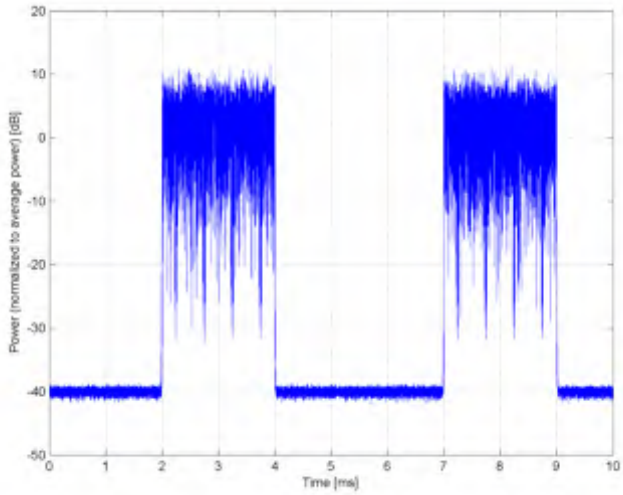
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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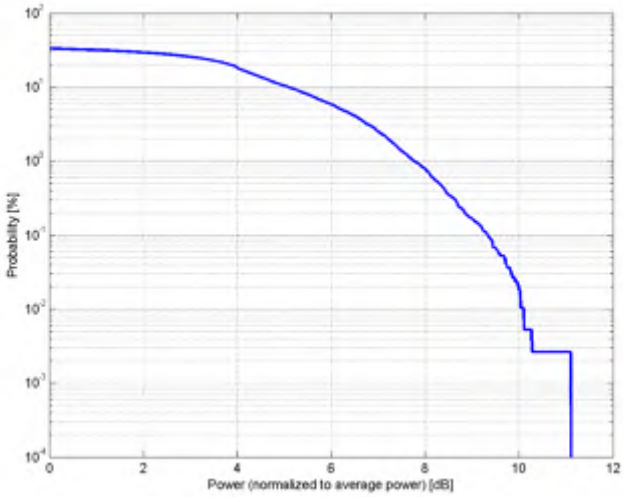
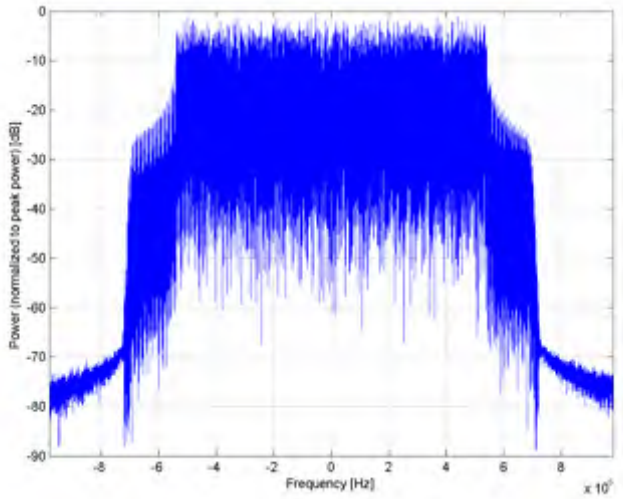
Name:	**LTE-TDD (SC-FDMA, 100 % RB, 1.4 MHz, QPSK)**
Group:	LTE-TDD
UID:	10258-CAA
PAR: [1]	**9.34 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150) Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 6 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

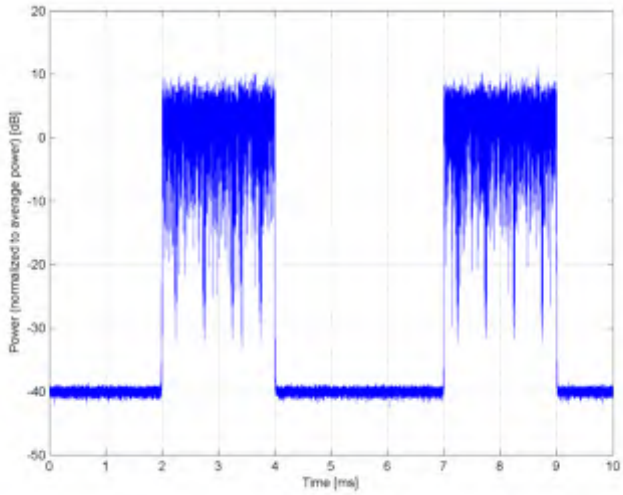
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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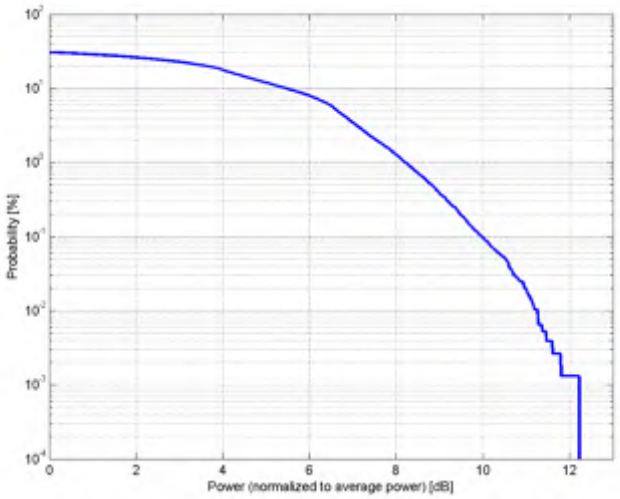
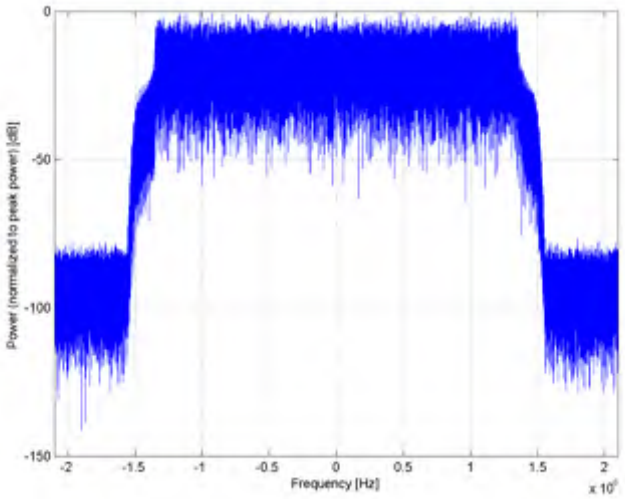
Name:	**LTE-TDD (SC-FDMA, 100 % RB, 3 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10259-CAB
PAR: [1]	**9.98 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 16QAM
	Allocated RB: 15
	Start Number of RB: 0
	Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

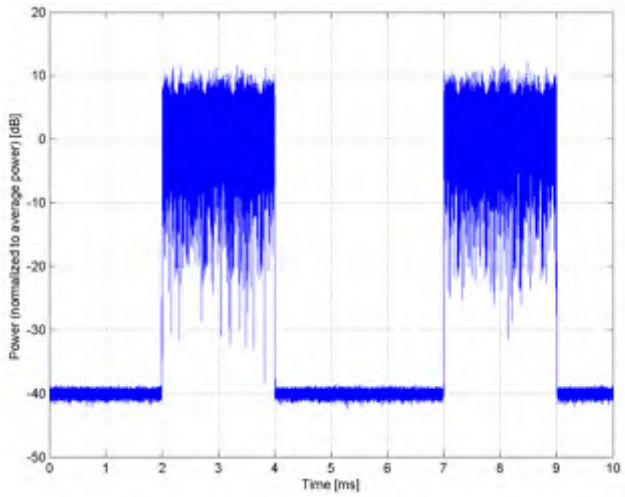
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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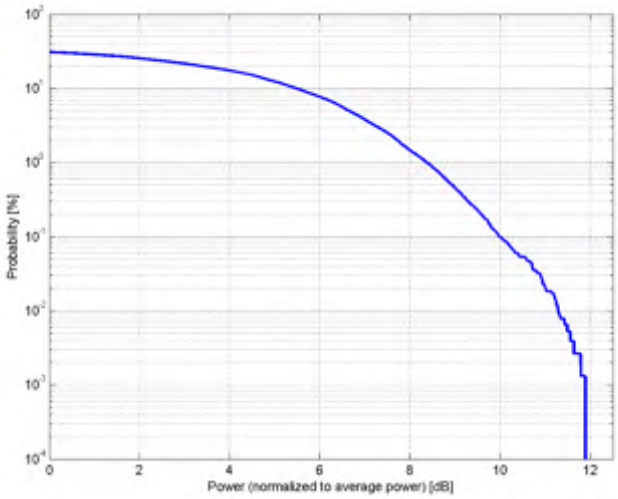
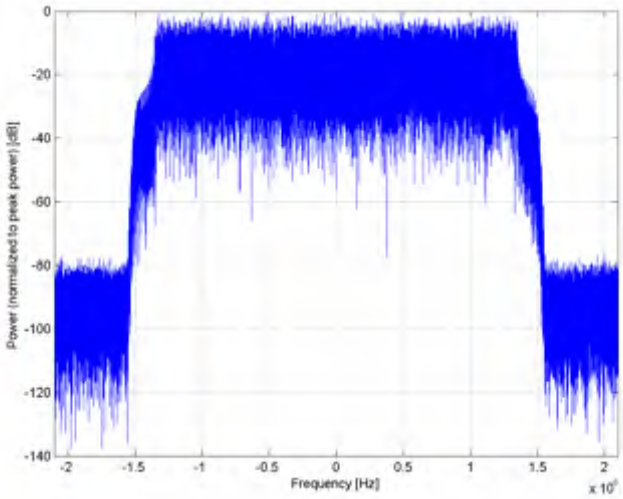
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 100 % RB, 3 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10260-CAB
PAR: [1]	**9.97 dB**
MIF: [2]	**-1.65 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, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Uplink-downlink configuration: 1
	Special Subframe configuration: 4
	Number of Frames: 1
	Settings for UL Subframe 2,3,7,8:
	Number of PUSCHs: 1
	Modulation Scheme: 64QAM
	Allocated RB: 15
	Start Number of RB: 0
	Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

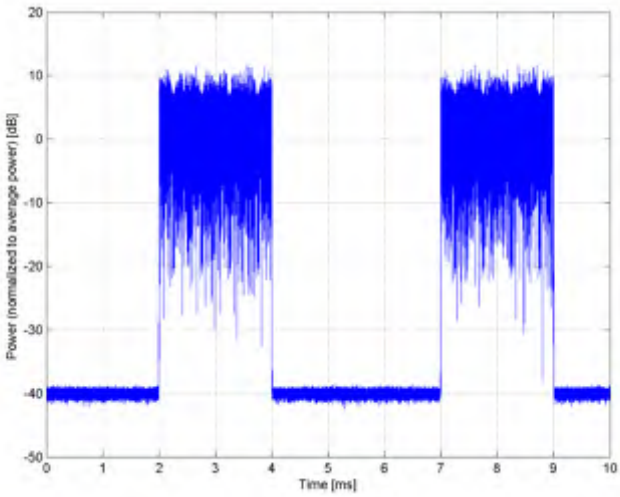
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

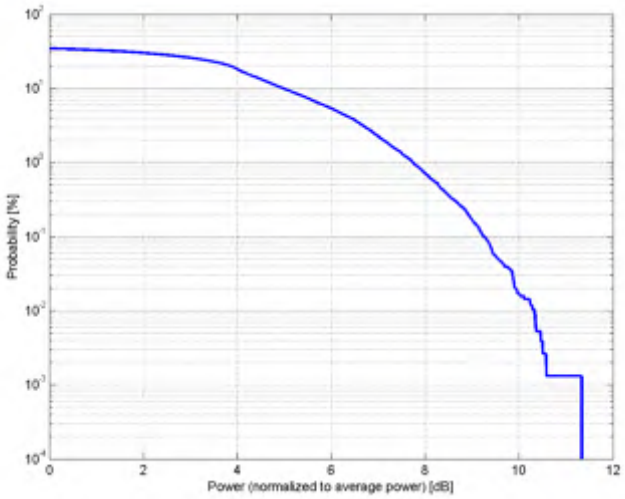


Time Domain

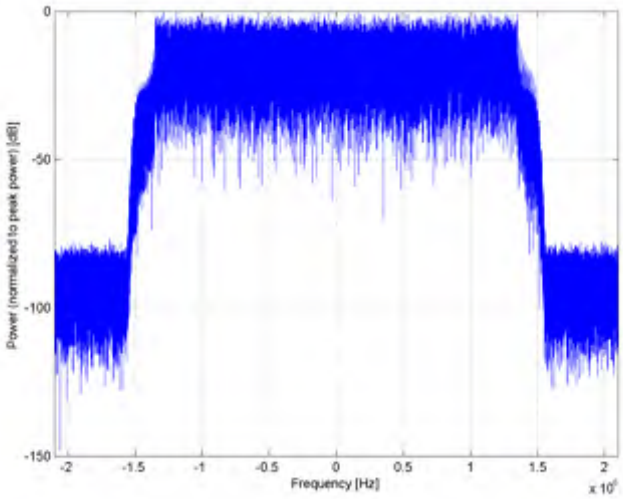
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 100 % RB, 3 MHz, QPSK)**
Group:	LTE-TDD
UID:	10261-CAB
PAR: [1]	**9.24 dB**
MIF: [2]	**-1.64 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, 20150) Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151) Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 15 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

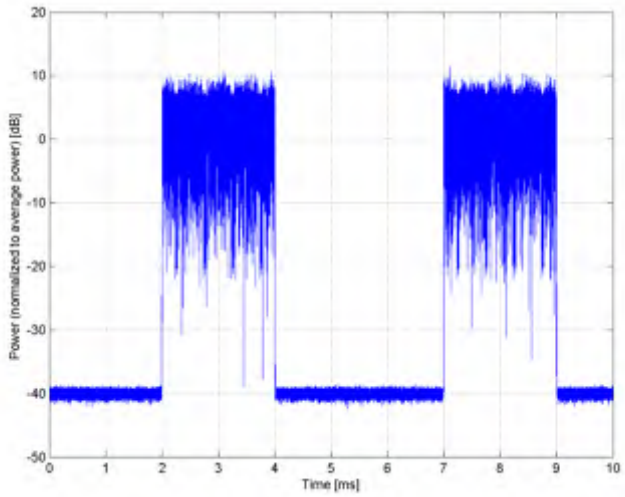
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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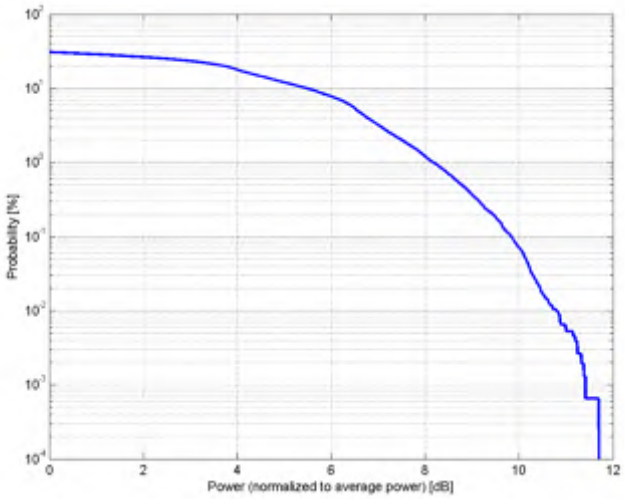
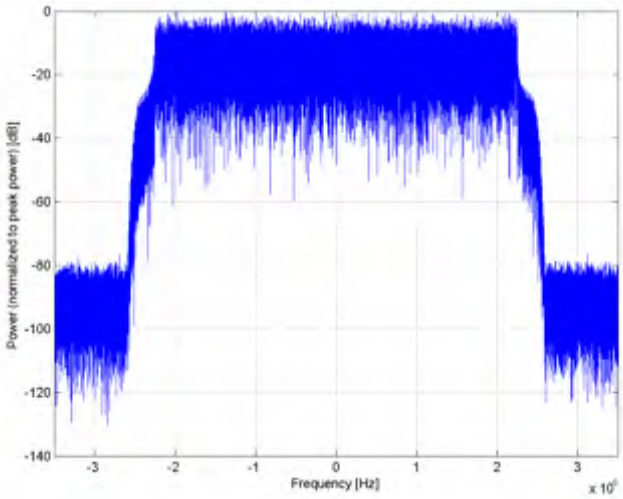
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10262-CAD
PAR: [1]	**9.83 dB**
MIF: [2]	**-1.65 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 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16-QAM Allocated RB: 25 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

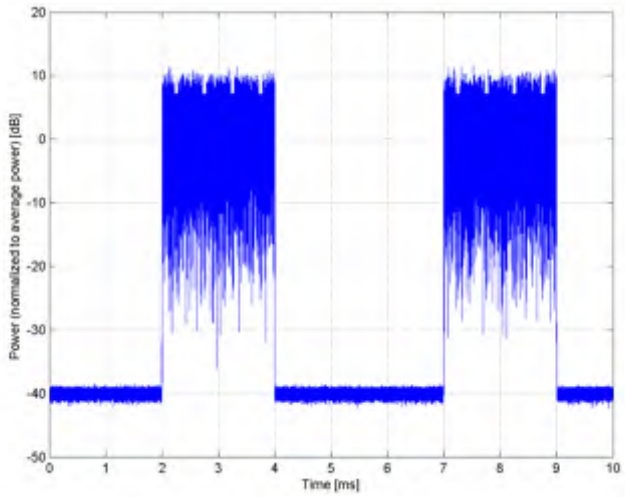
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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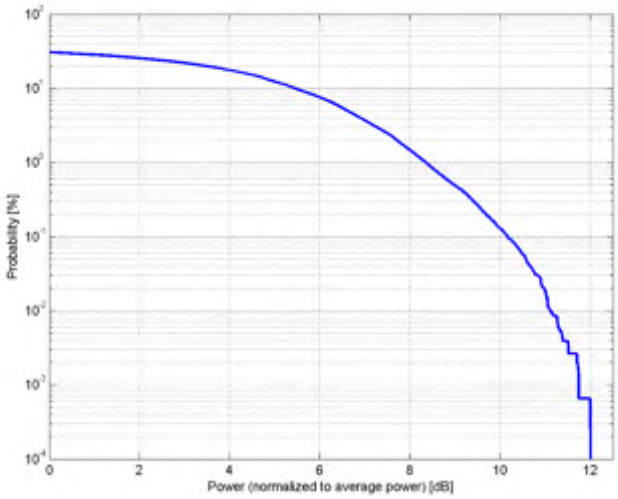
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

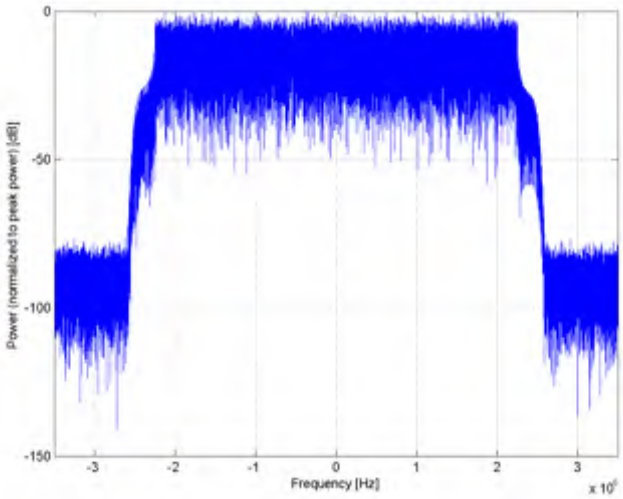
Name:	**LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10263-CAD
PAR: [1]	**10.16 dB**
MIF: [2]	**-1.67 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 25 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

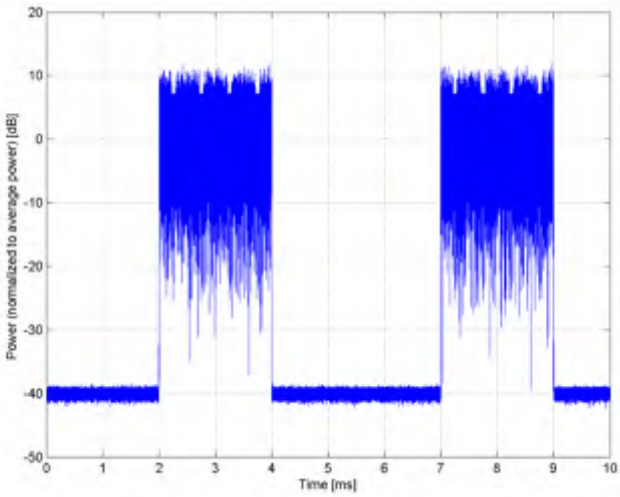
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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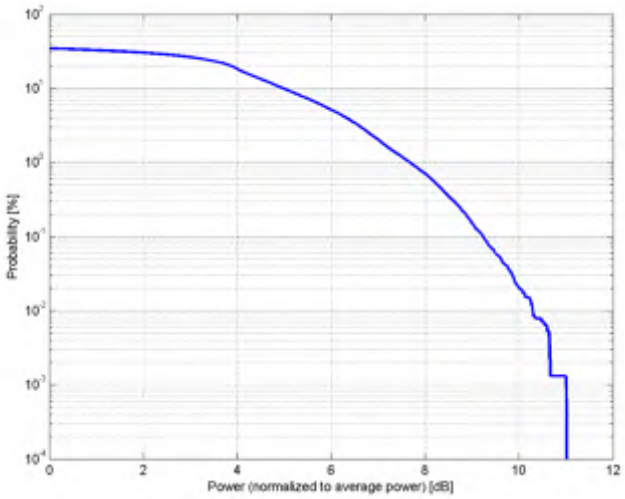
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

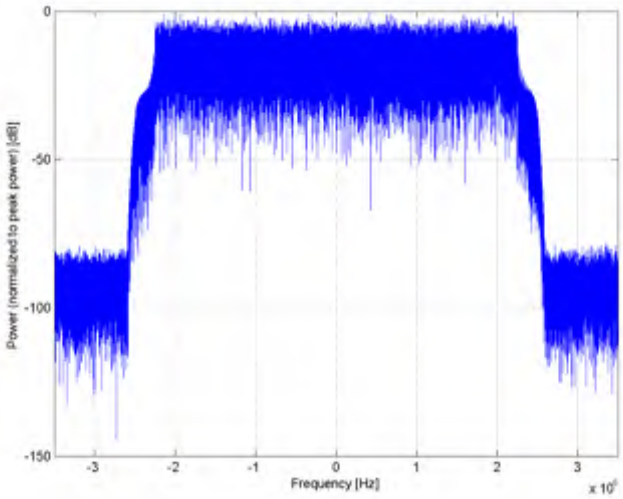
Name:	**LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)**
Group:	LTE-TDD
UID:	10264-CAD
PAR: [1]	**9.23 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
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 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 25 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

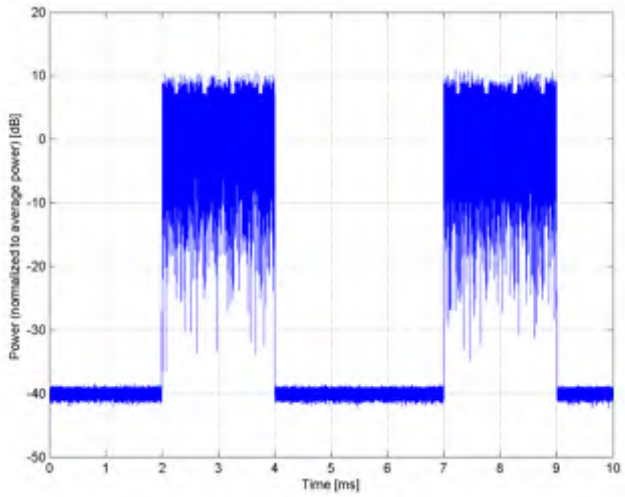
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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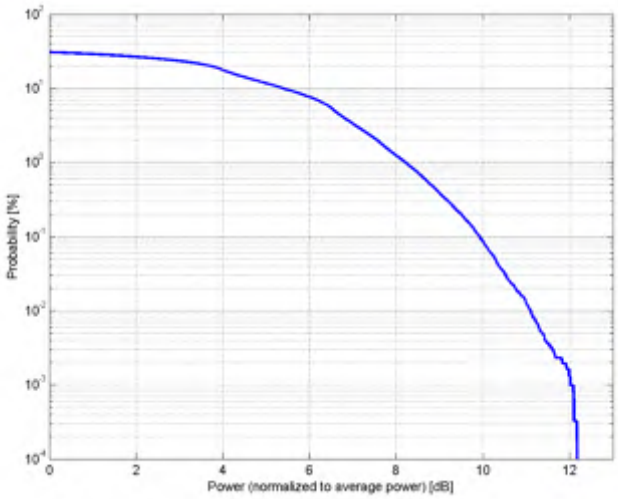
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

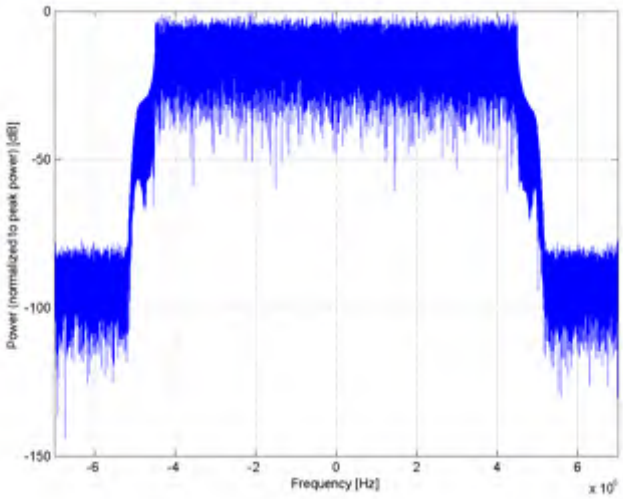
Name:	**LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10265-CAD
PAR: [1]	**9.92 dB**
MIF: [2]	**-1.66 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 50 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

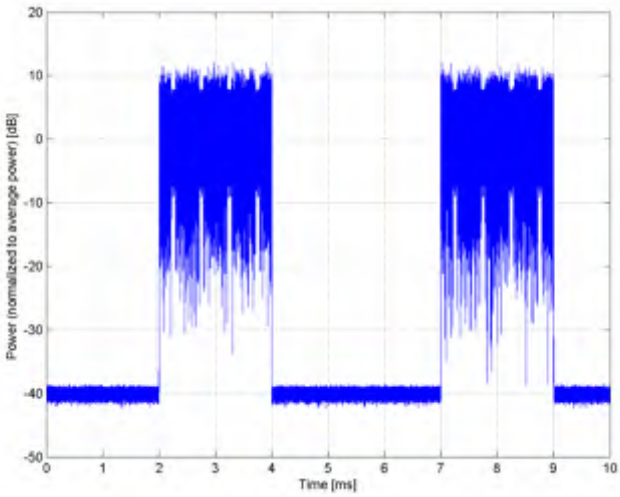
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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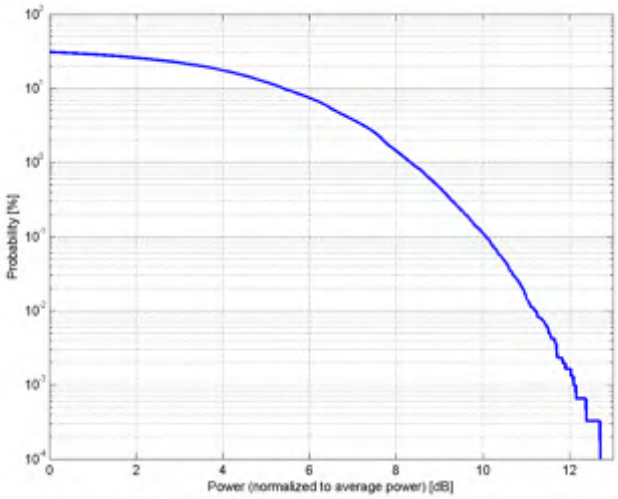
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

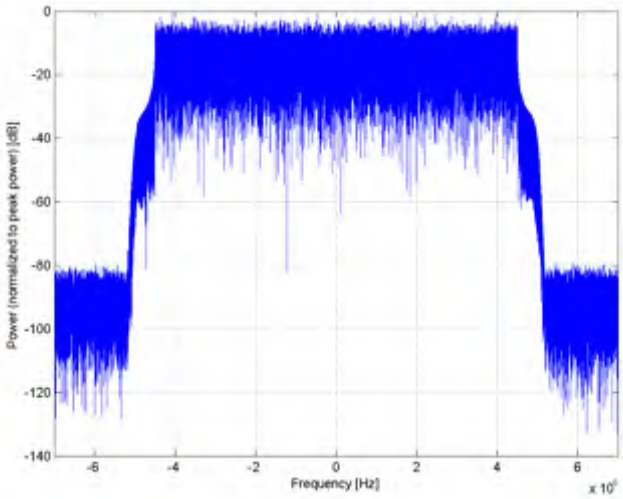
Name:	**LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10266-CAD
PAR: [1]	**10.07 dB**
MIF: [2]	**-1.66 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 50 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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

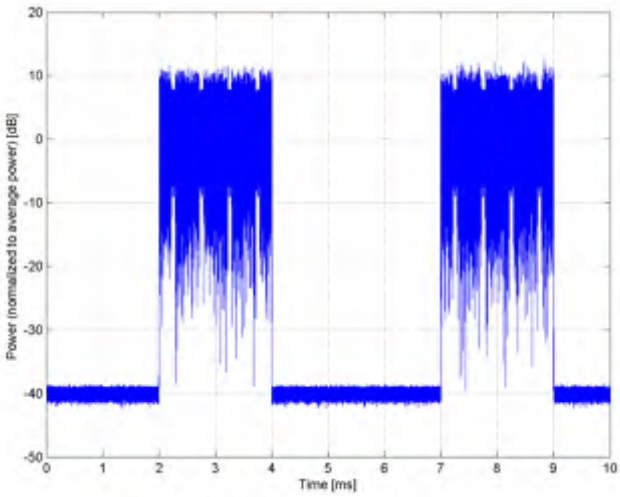
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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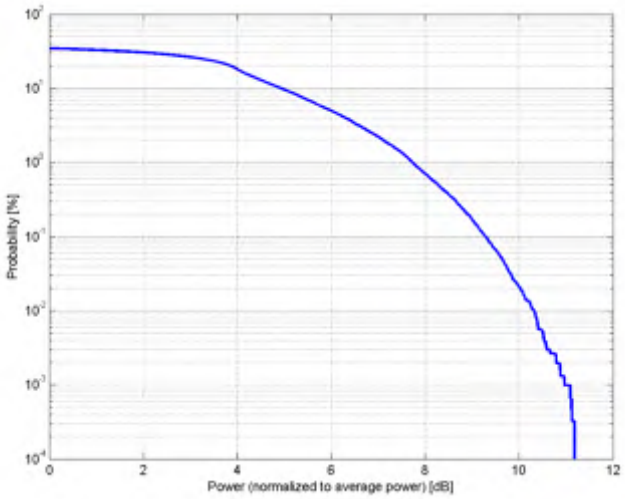
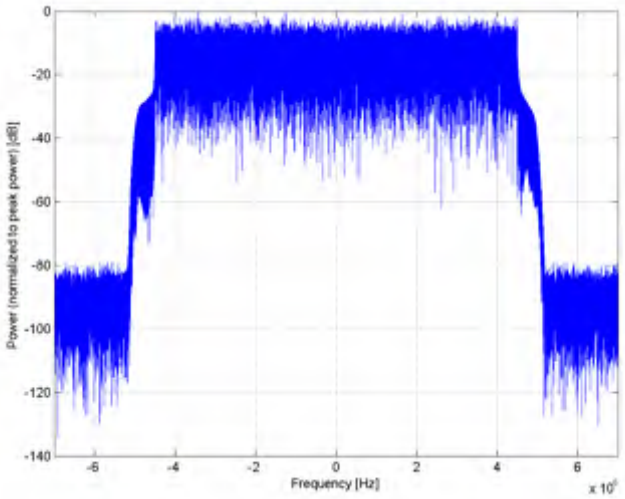
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)**
Group:	LTE-TDD
UID:	10267-CAD
PAR: [1]	**9.30 dB**
MIF: [2]	**-1.64 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 50 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

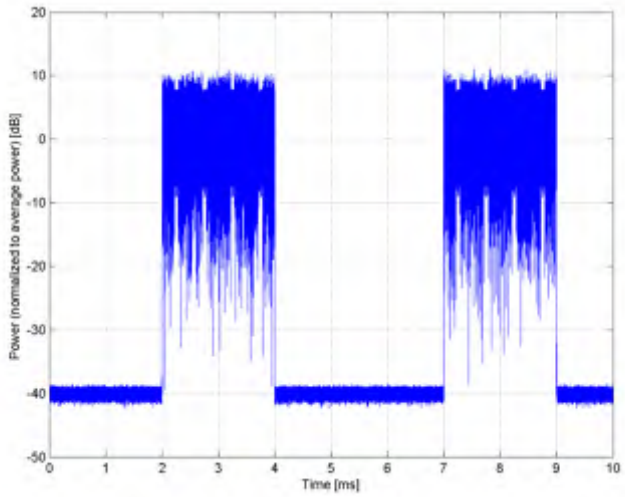
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



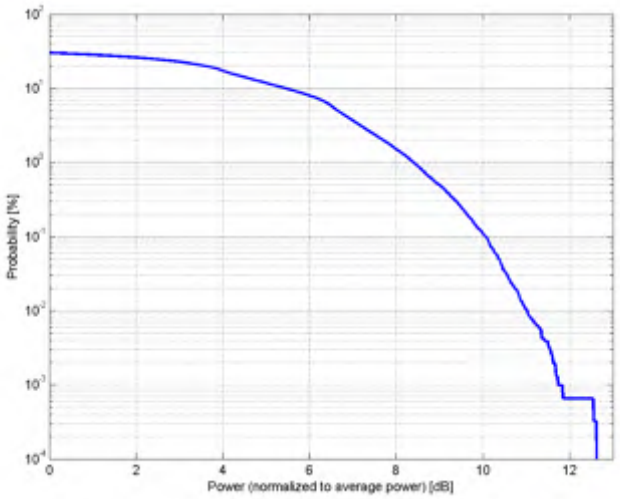
Time Domain

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

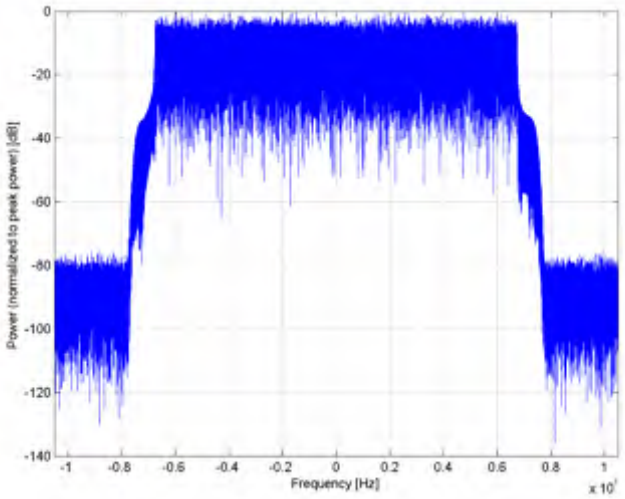
Name:	**LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)**
Group:	LTE-TDD
UID:	10268-CAD
PAR: [1]	**10.06 dB**
MIF: [2]	**-1.67 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 16QAM Allocated RB: 75 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

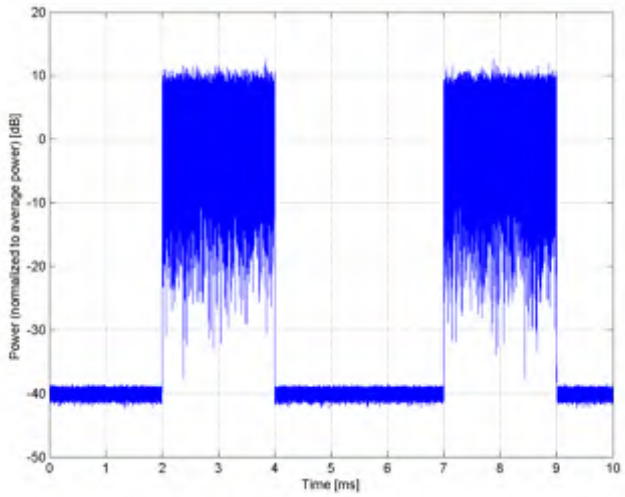
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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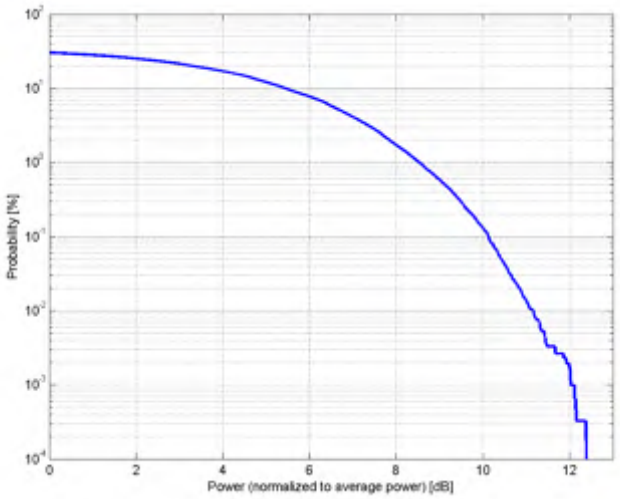
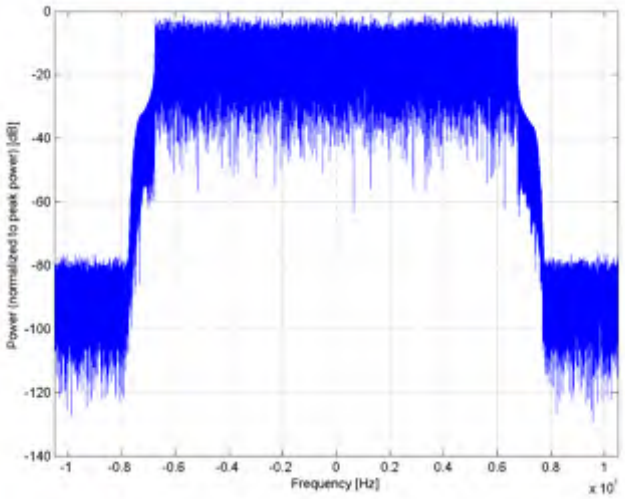
Name:	**LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)**
Group:	LTE-TDD
UID:	10269-CAD
PAR: [1]	**10.13 dB**
MIF: [2]	**-1.69 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: 64QAM Allocated RB: 75 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

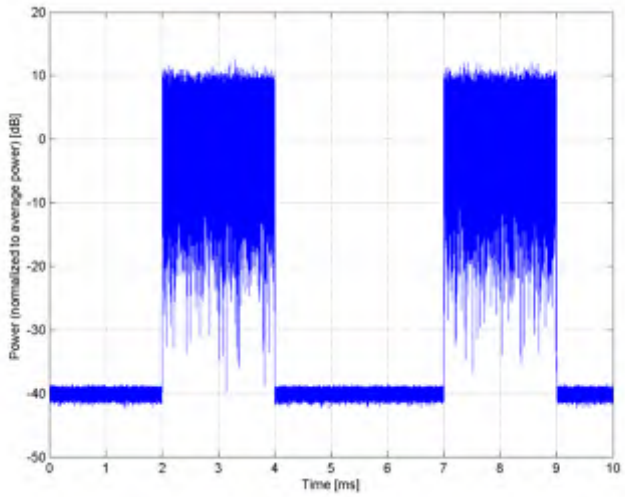
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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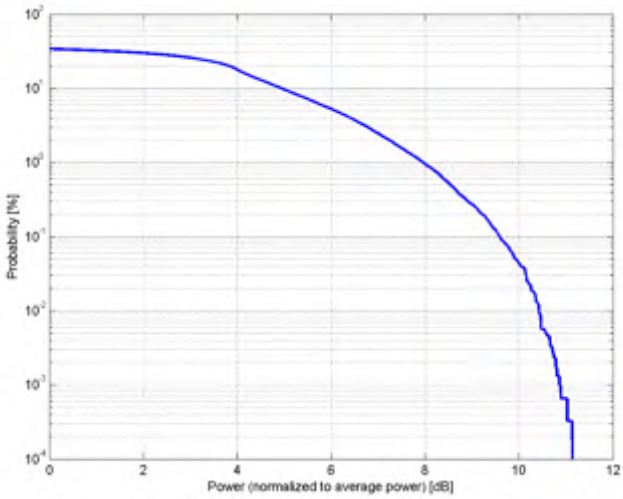
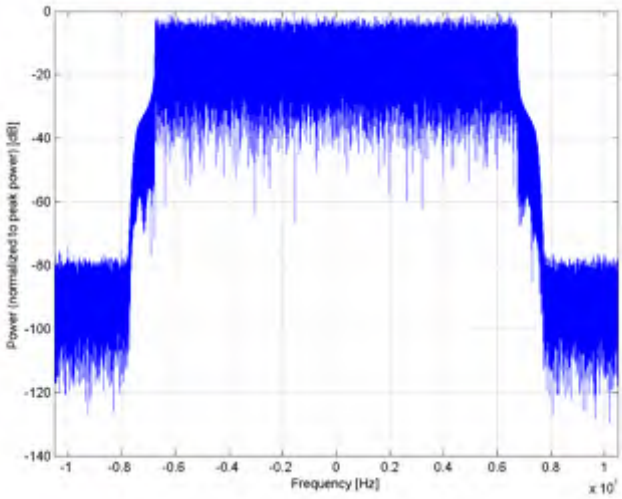
Name:	**LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)**
Group:	LTE-TDD
UID:	10270-CAD
PAR: [1]	**9.58 dB**
MIF: [2]	**-1.65 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	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 48, E-UTRA/TDD (3550.0 - 3700.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Uplink-downlink configuration: 1 Special Subframe configuration: 4 Number of Frames: 1 Settings for UL Subframe 2,3,7,8: Number of PUSCHs: 1 Modulation Scheme: QPSK Allocated RB: 75 Start Number of RB: 0 Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

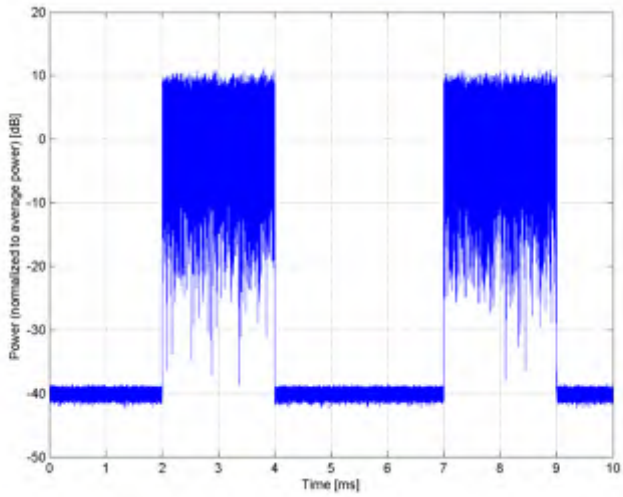
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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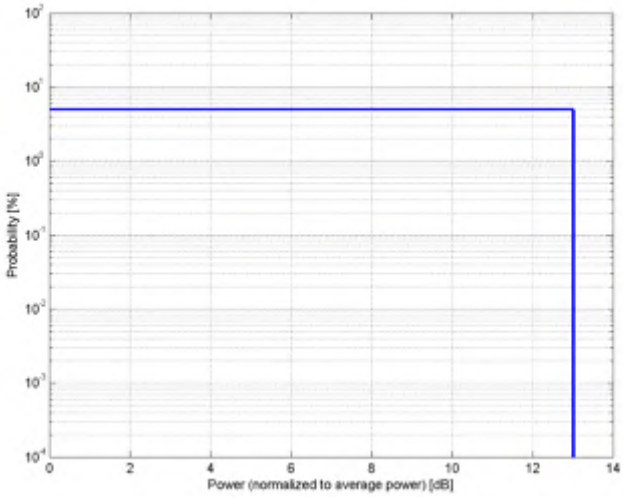
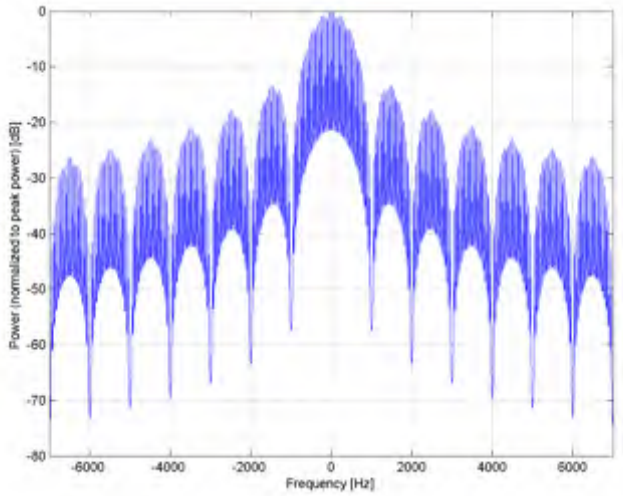
Name:	**MRI (Square, 20ms, 1.0ms)**
Group:	MRI
UID:	10272-CAC
PAR: [1]	**13.01 dB**
MIF: [2]	**-99.00 dB**
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Calibration Sequence for Medical Implant Test System (MITS) Pulse Shape: rectangular Repetition Rate: 50 Hz Duty Cycle: 5%
Bandwidth:	0.0 MHz
Integration Time:	20.0 ms

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

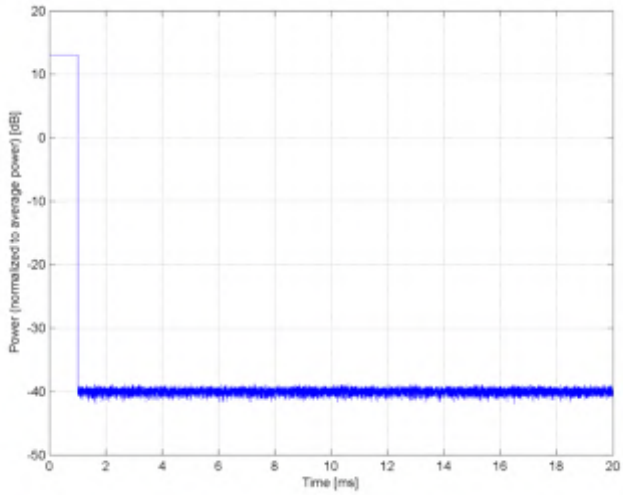
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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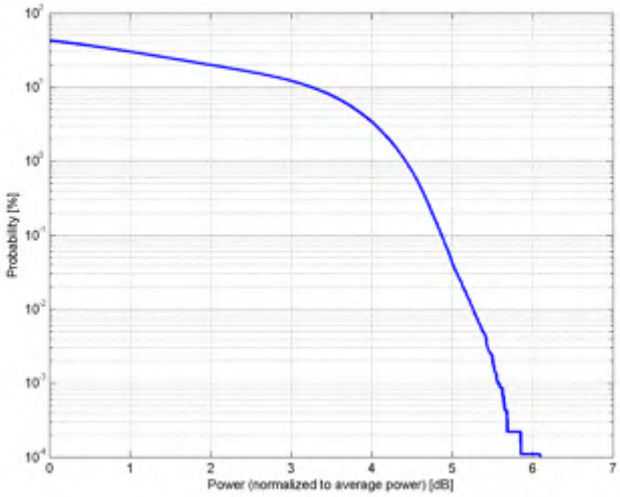
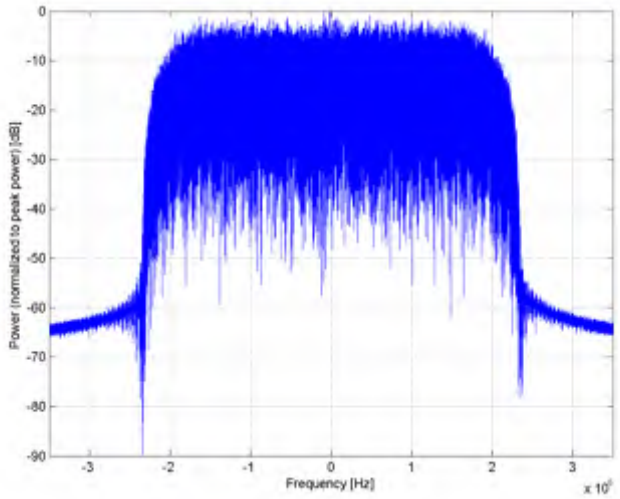
Name:	**UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)**
Group:	WCDMA
UID:	10274-CAB
PAR: [1]	**4.87 dB**
MIF: [2]	**-24.48 dB**
Standard Reference:	ETSI-3GPP TS 134 121-1 V8.10.0 (2010-06), Section C11.1
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, UTRA/FDD (1920.0-1980.0 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:	12.2 kbps RMC, FRC H-Set 1 CQI value: 2 Sub-test 5 Conditions: DPCCH gain factor (Beta_c) = 15/15 DPDCH gain factor (Beta_d): 0
Bandwidth:	5.0 MHz
Integration Time:	80.0 ms

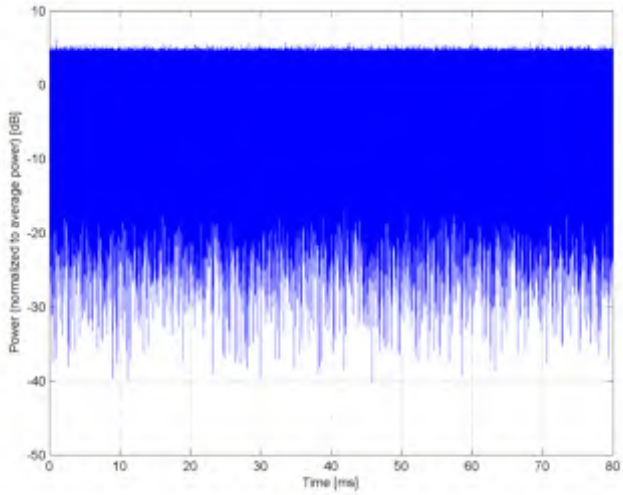
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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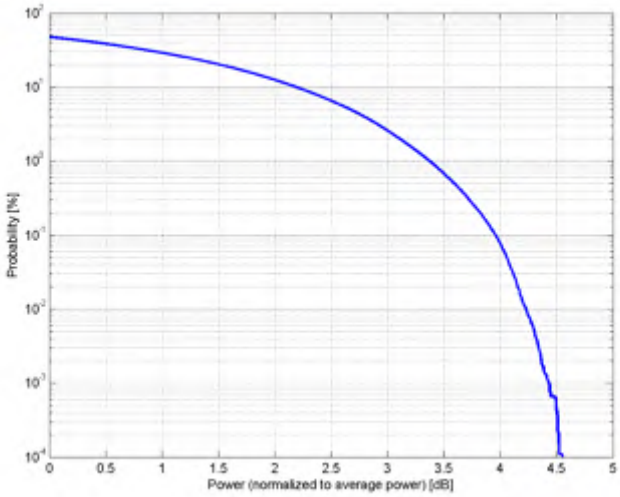
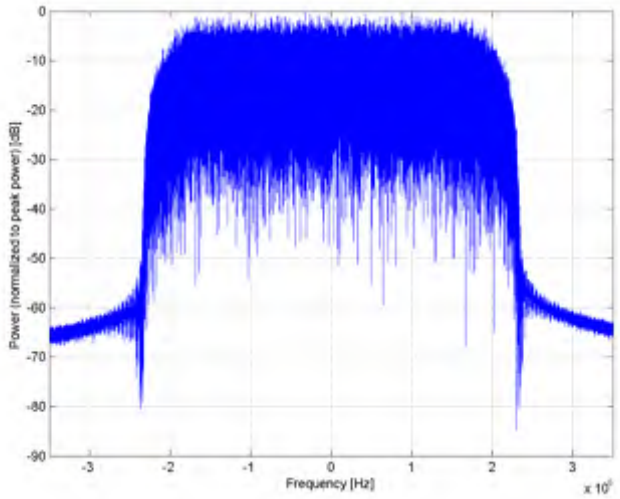
Name:	**UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)**
Group:	WCDMA
UID:	10275-CAB
PAR: [1]	**3.96 dB**
MIF: [2]	**-26.26 dB**
Standard Reference:	ETSI-3GPP TS 134 121-1 V8.04.0 (2008-10), Section C11.1 FCC OET KDB 941225 D01 SAR test for 3G devices v02 FCC OET KDB 941225 D02 Guidance for 3GPP R6 and R7 HSPA v02v01
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:	12.2 kbps RMC, FRC H-Set 1 CQI value: 2 Sub-test 5 Conditions: DPCCH gain factor (Beta_c) = 15/15 DPDCH gain factor (Beta_d): 15/15
Bandwidth:	5.0 MHz
Integration Time:	80.0 ms

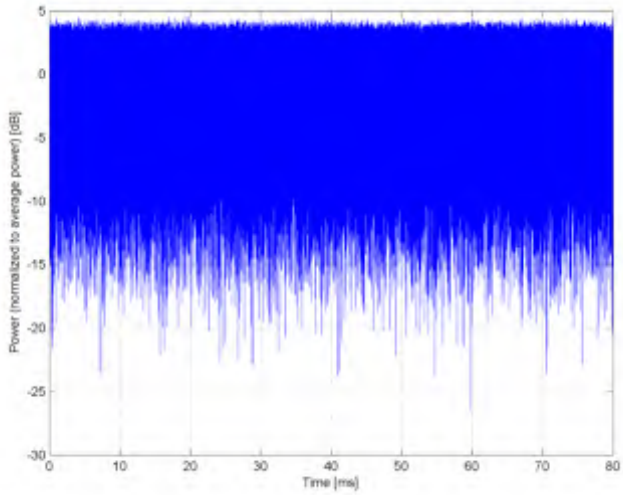
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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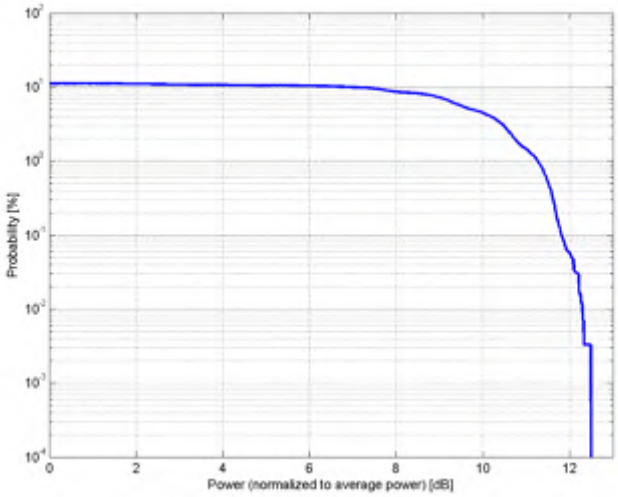
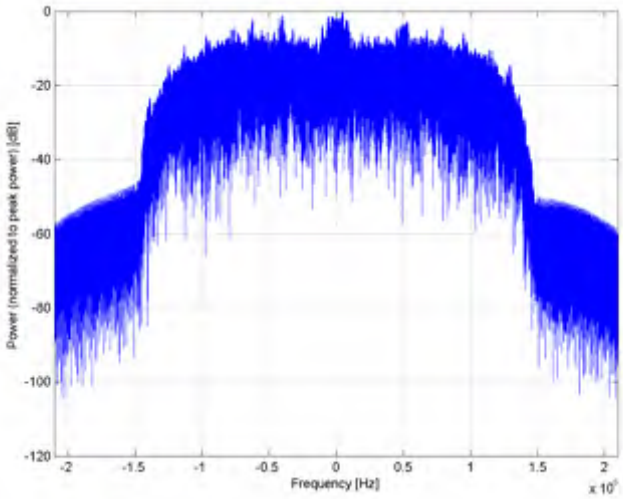
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**PHS (QPSK)**
Group:	PHS
UID:	10277-CAA
PAR: [1]	**11.81 dB**
MIF: [2]	**3.54 dB**
Standard Reference:	ARIB STANDARD RCR STD-28 VERSION 6.0
Category:	Periodic pulsed modulation
Modulation:	QPSK
Frequency Band:	PHS band (1884.5-1919.6 MHz, 20191)
Detailed Specification:	Channel type: Traffic Data type: PN9 Active slot: 5th Frame: composed out of 8 slots Occupied bandwidth: 288kHz or less
Bandwidth:	0.3 MHz
Integration Time:	100.0 ms

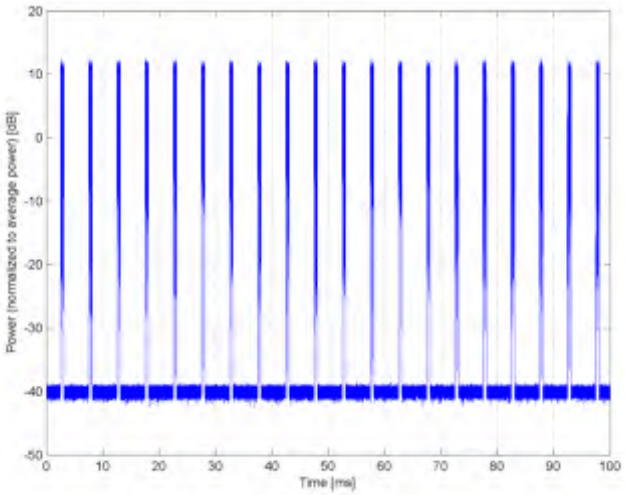
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

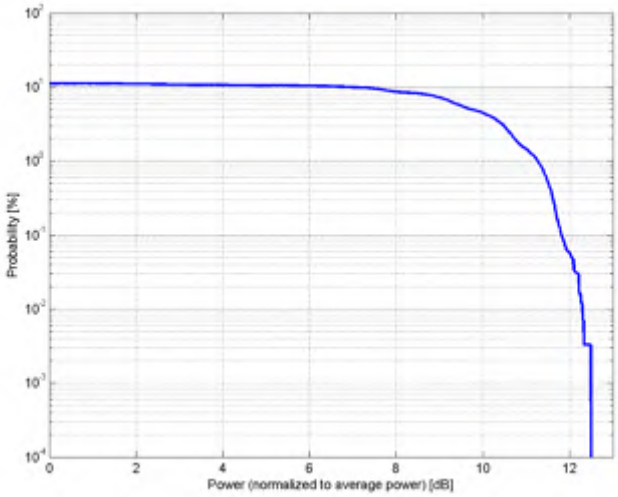


Time Domain

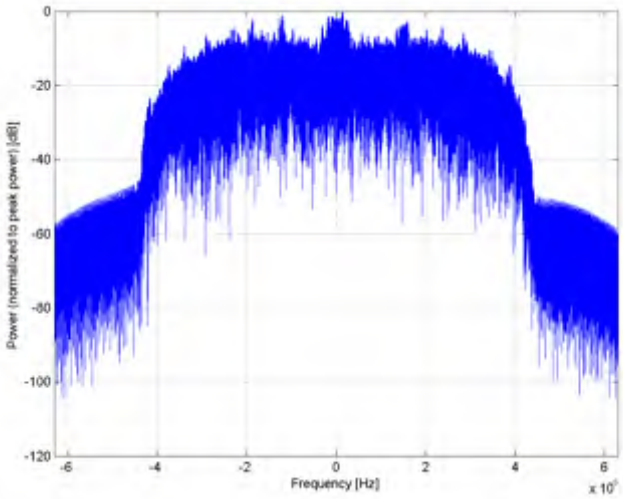
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**PHS (QPSK, BW 884MHz, Rolloff 0.5)**
Group:	PHS
UID:	10278-CAA
PAR: [1]	**11.81 dB**
MIF: [2]	**3.36 dB**
Standard Reference:	ARIB STANDARD RCR STD-28 VERSION 6.0
Category:	Periodic pulsed modulation
Modulation:	QPSK
Frequency Band:	PHS band large BW (1884.5-1893.5 MHz, 20192)
Detailed Specification:	Channel type: Traffic Data type: PN9 Active slot: 5th Frame: composed out of 8 slots Occupied bandwidth: 884kHz or less Rolloff factor: 0.5
Bandwidth:	0.9 MHz
Integration Time:	33.3 ms

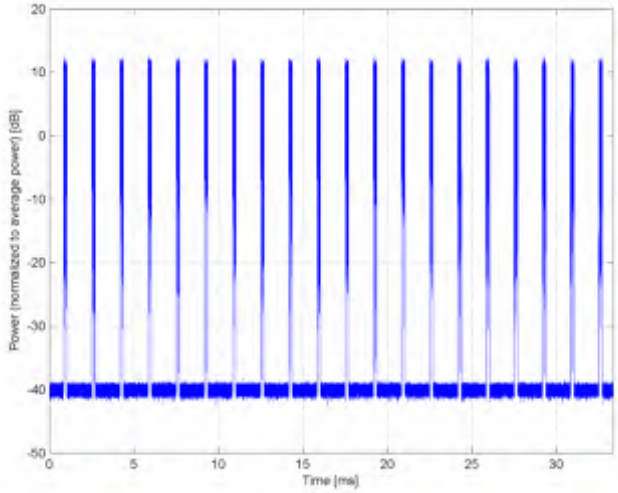
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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Engineering AG
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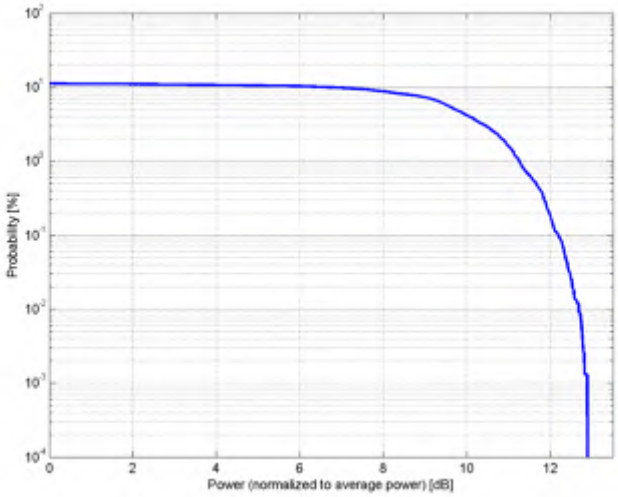
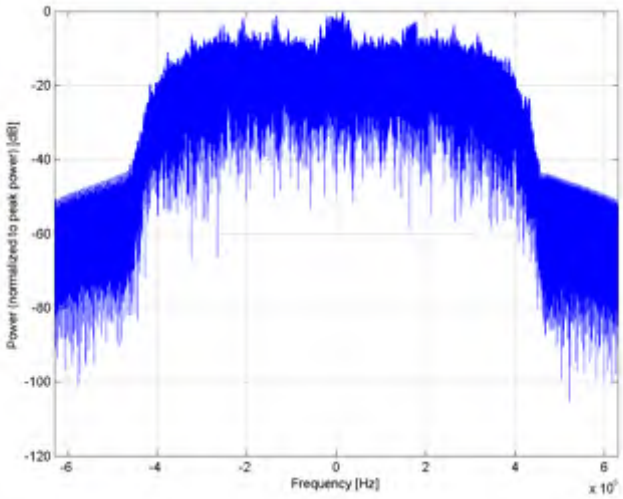
Name:	**PHS (QPSK, BW 884MHz, Rolloff 0.38)**
Group:	PHS
UID:	10279-CAA
PAR: [1]	**12.18 dB**
MIF: [2]	**3.25 dB**
Standard Reference:	ARIB STANDARD RCR STD-28 VERSION 6.0
Category:	Periodic pulsed modulation
Modulation:	QPSK
Frequency Band:	PHS band large BW (1884.5-1893.5 MHz, 20192)
Detailed Specification:	Channel type: Traffic Data type: PN9 Active slot: 5th Frame: composed out of 8 slots Occupied bandwidth: 884kHz or less Rolloff factor: 0.38
Bandwidth:	0.9 MHz
Integration Time:	30.0 ms

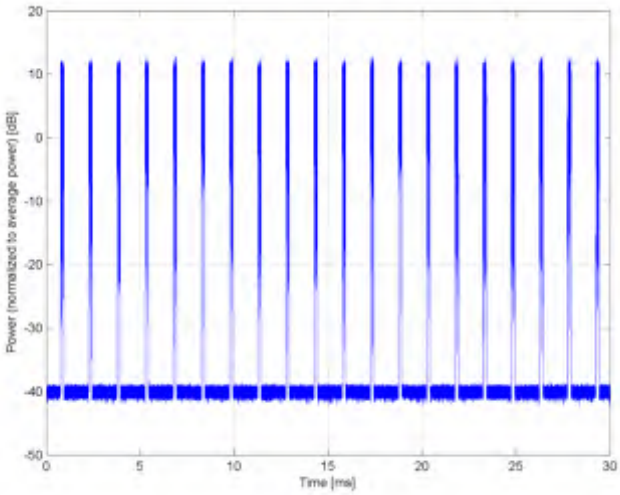
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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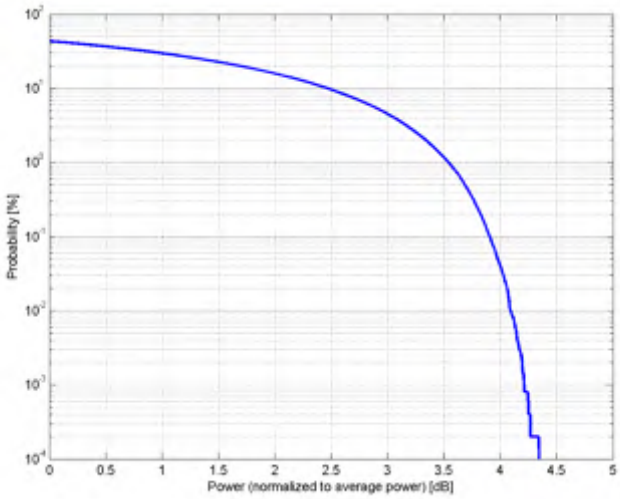
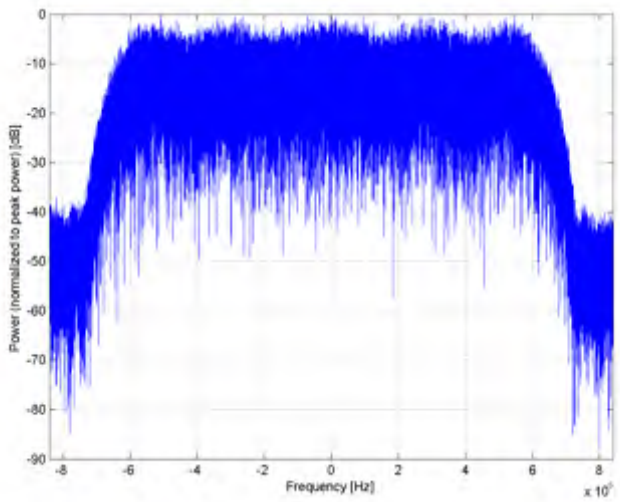
Name:	**CDMA2000, RC1, SO55, Full Rate**
Group:	CDMA2000
UID:	10290-AAB
PAR: [1]	**3.91 dB**
MIF: [2]	**-19.47 dB**
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 FCC OET KDB 941225 D01 SAR test for 3G devices (v02)
Category:	Random amplitude modulation
Modulation:	64-ary orthogonal
Frequency 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:	Radio Configuration 1 (RC1) Service Option 55 (SO55) Full rate
Bandwidth:	1.2 MHz
Integration Time:	100.0 ms

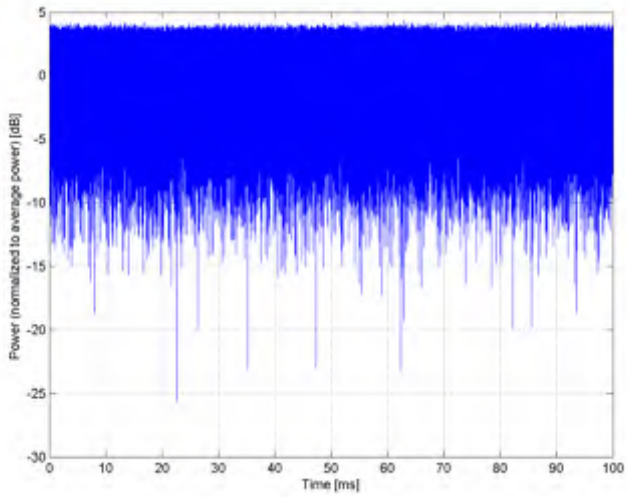
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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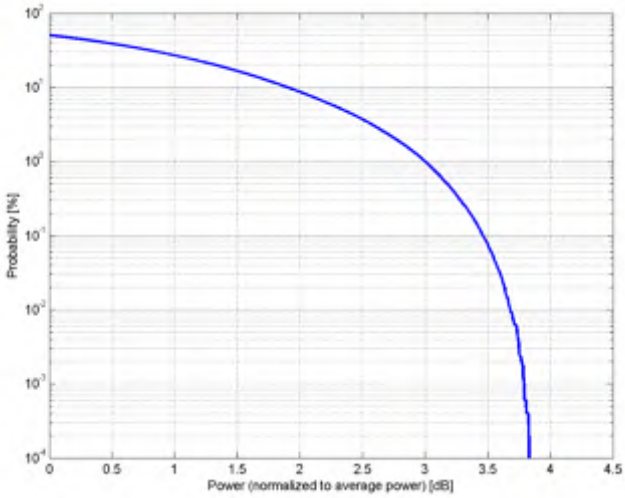
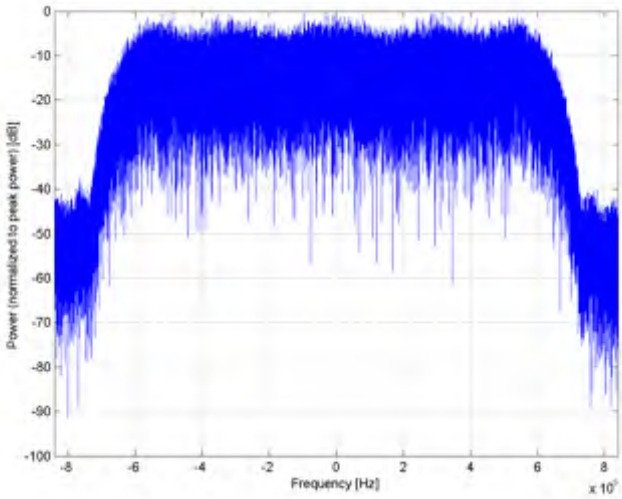
Name:	**CDMA2000, RC3, SO55, Full Rate**
Group:	CDMA2000
UID:	10291-AAB
PAR: [1]	**3.46 dB**
MIF: [2]	**-19.70 dB**
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 FCC OET KDB 941225 D01 SAR test for 3G devices (v02)
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	Band 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:	Radio Configuration 3 (RC3) Service Option 55 (SO55) Full frame rate
Bandwidth:	1.2 MHz
Integration Time:	100.0 ms

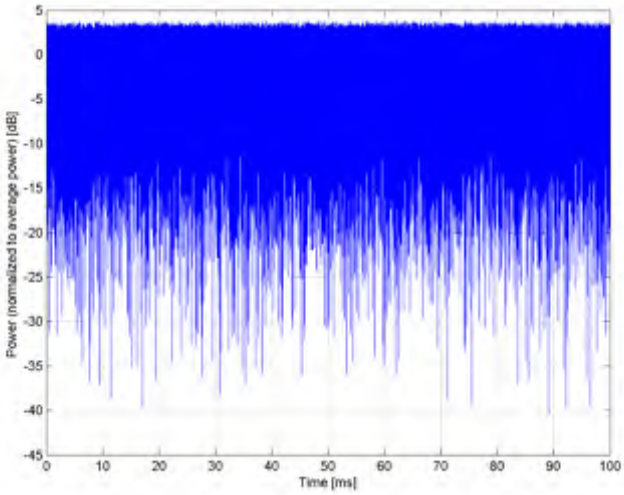
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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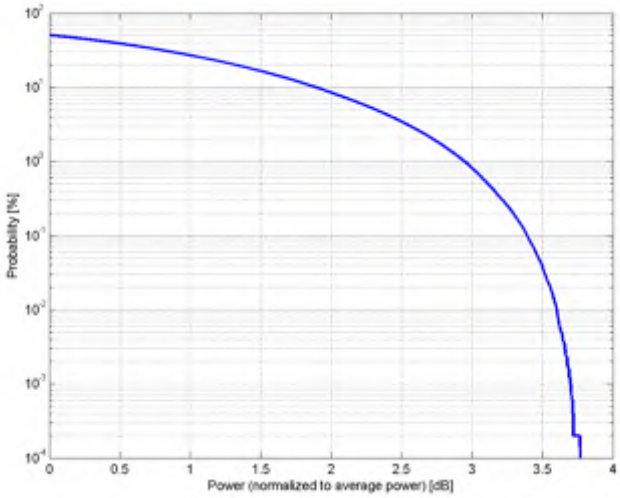
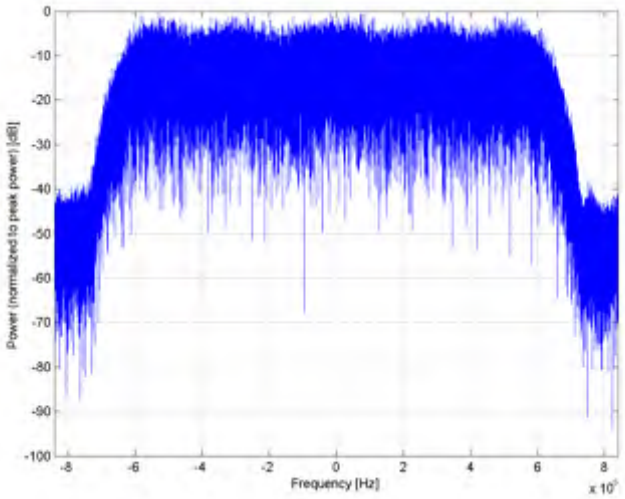
Name:	**CDMA2000, RC3, SO32, Full Rate**
Group:	CDMA2000
UID:	10292-AAB
PAR: [1]	**3.39 dB**
MIF: [2]	**-19.75 dB**
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 FCC OET KDB 941225 D01 SAR test for 3G devices (v02)
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	Band 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:	Radio Configuration 3 (RC3) Service Option 32 (SO32) SCH0 disabled Full frame rate
Bandwidth:	1.2 MHz
Integration Time:	100.0 ms

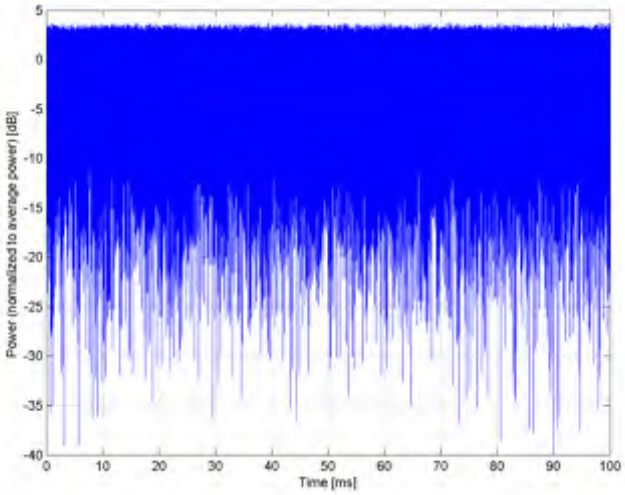
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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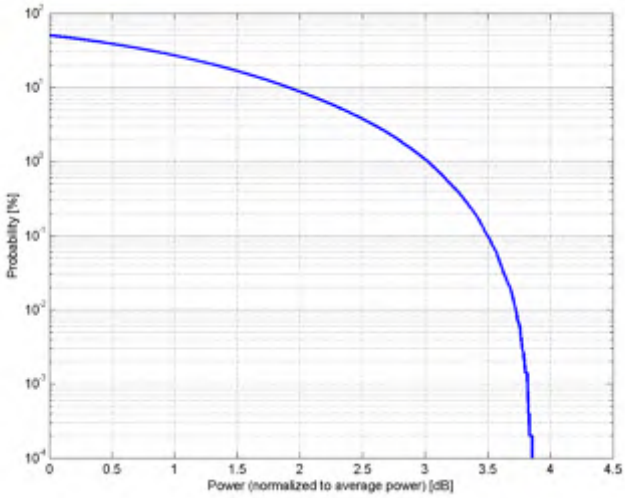
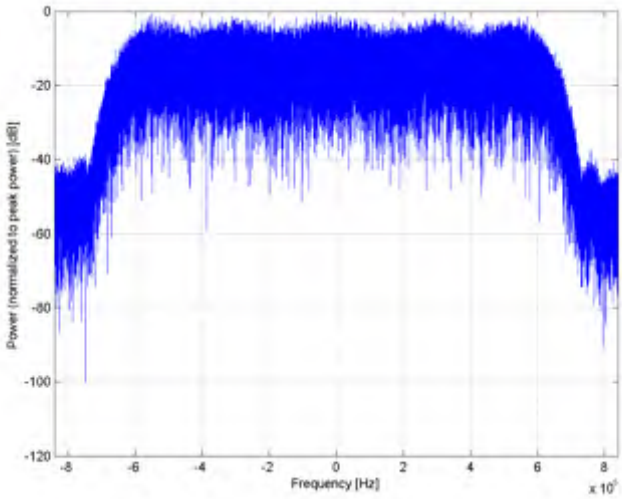
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**CDMA2000, RC3, SO3, Full Rate**
Group:	CDMA2000
UID:	10293-AAB
PAR: [1]	**3.50 dB**
MIF: [2]	**-19.43 dB**
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 FCC OET KDB 941225 D01 SAR test for 3G devices (v02)
Category:	Random amplitude modulation
Modulation:	BPSK
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:	Radio Configuration 3 (RC3) Service Option 3 (SO3) Speech codec: 8k EVRC (Enhanced Voice Rate Codec) Full frame rate
Bandwidth:	1.2 MHz
Integration Time:	100.0 ms

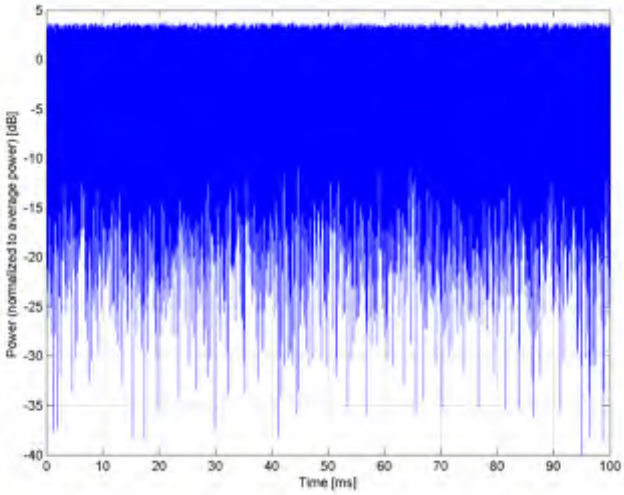
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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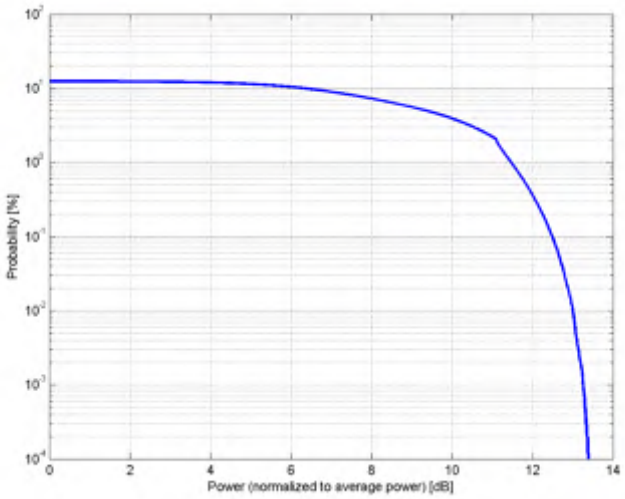
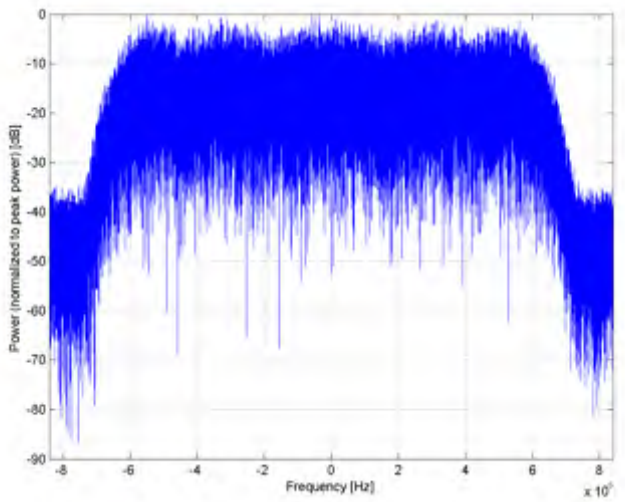
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**CDMA2000, RC1, SO3, 1/8th Rate 25 fr.**
Group:	CDMA2000
UID:	10295-AAB
PAR: [1]	**12.49 dB**
MIF: [2]	**3.26 dB**
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 FCC OET KDB 941225 D01 SAR test for 3G devices (v02)
Category:	Random amplitude modulation
Modulation:	64-ary orthogonal
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:	Radio Configuration 1 (RC1) Service Option 3 (SO3) Speech codec: 8k EVRC (Enhanced Voice Rate Codec) 1/8th frame rate
Bandwidth:	1.2 MHz
Integration Time:	500.0 ms

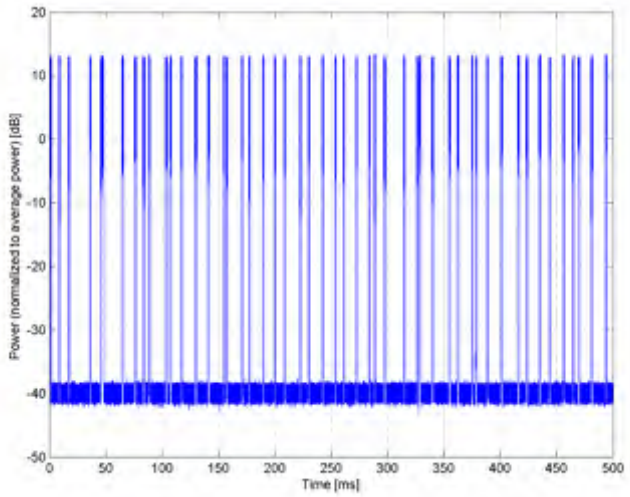
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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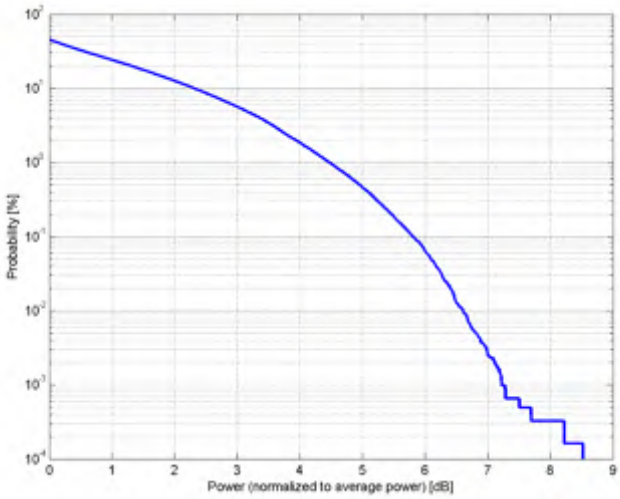
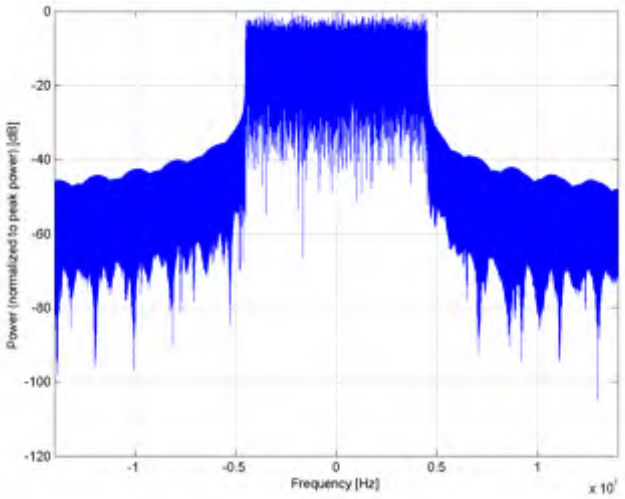
Name:	**LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)**
Group:	LTE-FDD
UID:	10297-AAC
PAR: [1]	**5.81 dB**
MIF: [2]	**-21.56 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 50 Transport Block Size: 4392 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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

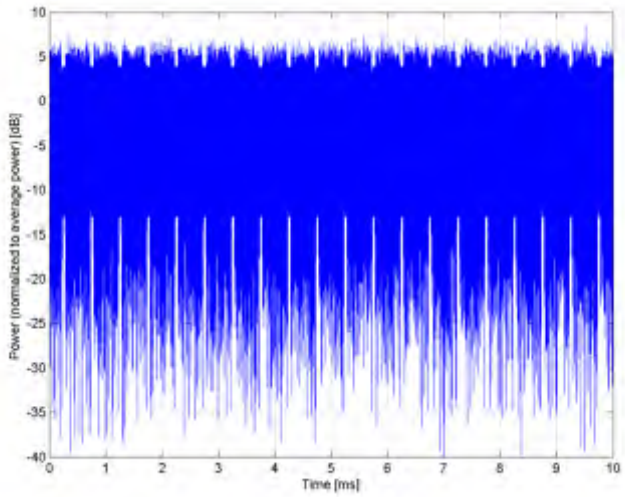
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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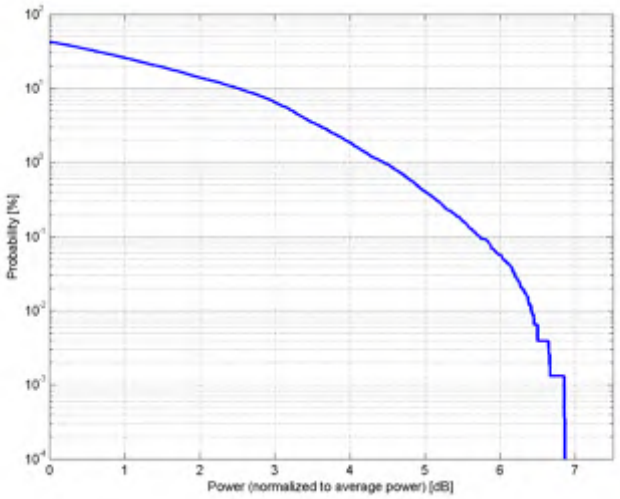
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

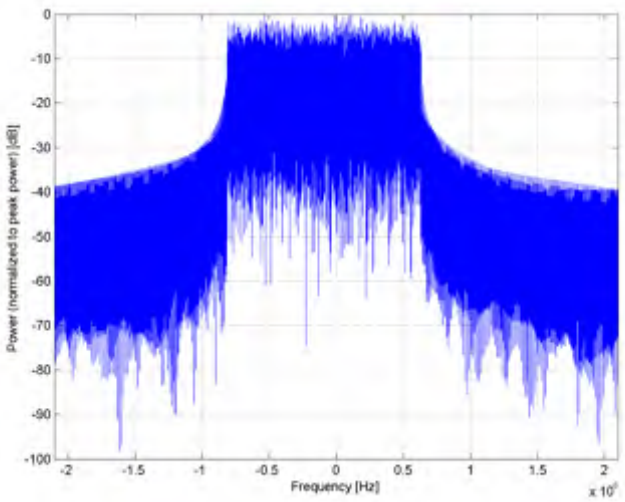
Name:	**LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)**
Group:	LTE-FDD
UID:	10298-AAC
PAR: [1]	**5.72 dB**
MIF: [2]	**-20.24 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 8 Transport Block Size: 680 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

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

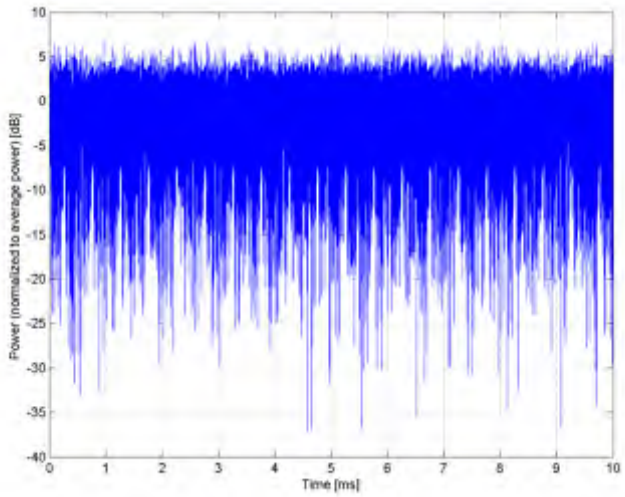
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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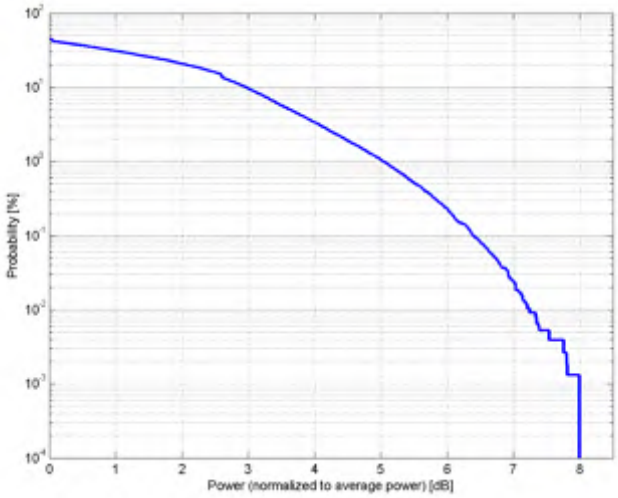
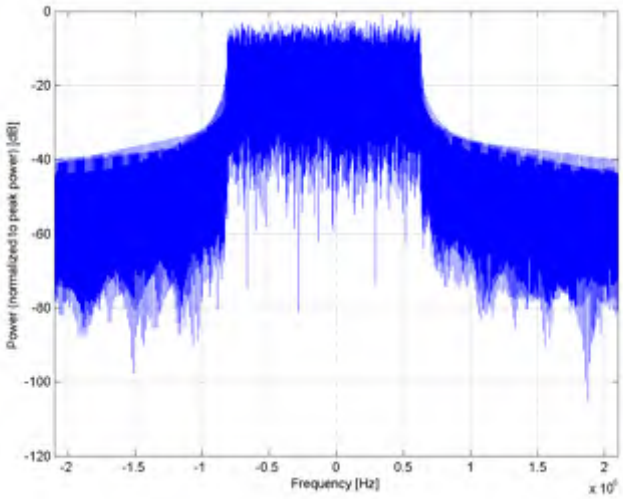
Name:	**LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)**
Group:	LTE-FDD
UID:	10299-AAC
PAR: [1]	**6.39 dB**
MIF: [2]	**-14.38 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 16QAM Data Type: UL-SCH Number RB: 8 Transport Block Size: 2280 TBS Index: 14 MCS Index: 15 Data Type: PN9
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

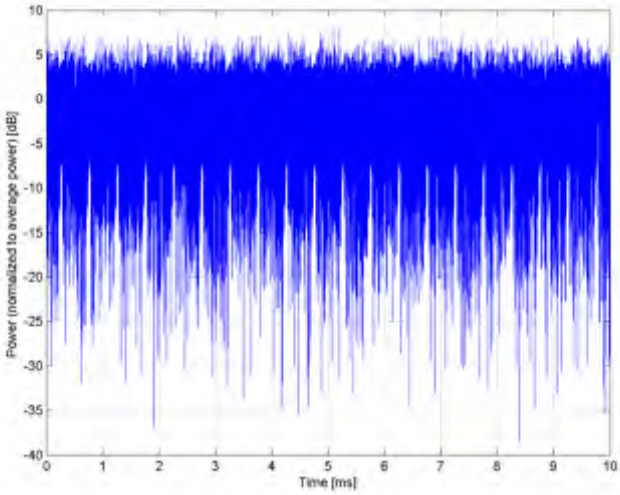
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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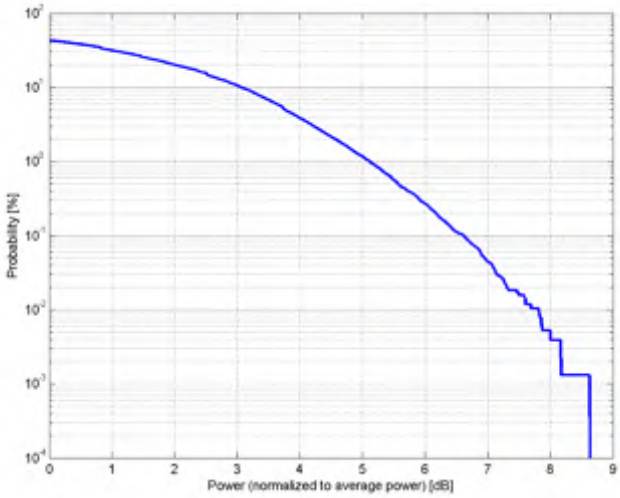
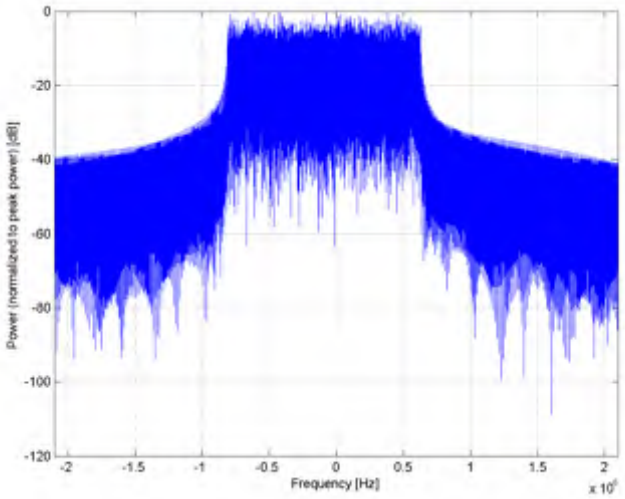
Name:	**LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)**
Group:	LTE-FDD
UID:	10300-AAC
PAR: [1]	**6.60 dB**
MIF: [2]	**-13.14 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 5, E-UTRA/FDD (824.0 - 849.0 MHz) Band 8, E-UTRA/FDD (880.0 - 915.0 MHz) Band 12, E-UTRA/FDD (699.0 - 716.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 27 E-UTRA/FDD (807.0 - 824.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 31, E-UTRA/FDD (452.5 - 457.5 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: 64QAM Data Type: UL-SCH Number RB: 8 Transport Block Size: 4584 TBS Index: 23 MCS Index: 25 Data Type: PN9
Bandwidth:	3.0 MHz
Integration Time:	10.0 ms

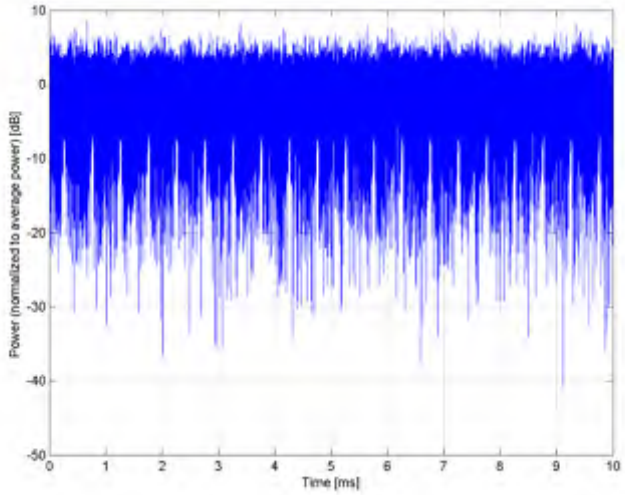
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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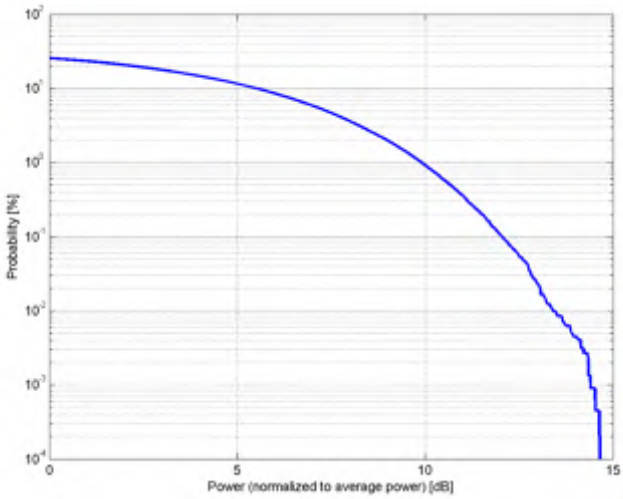
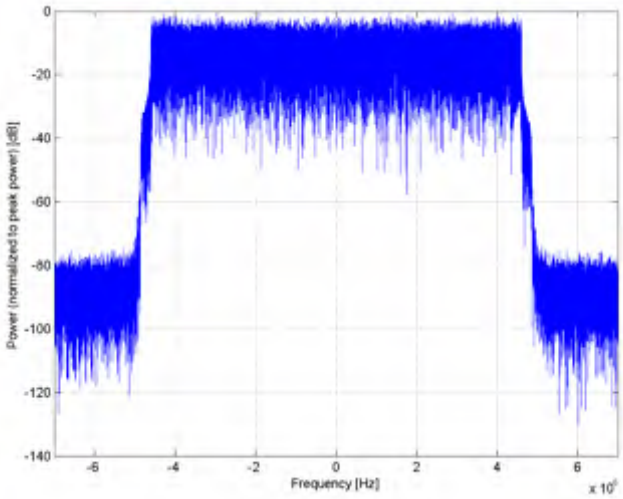
Name:	**IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC)**
Group:	WiMAX
UID:	10301-AAA
PAR: [1]	**12.03 dB**
MIF: [2]	**-1.38 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 5ms
	Bandwidth: 10MHz
	Modulation Scheme: QPSK(CTC)1/2
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 44.8 MHz
	Oversampling Ratio: 4
	Subcarrier Spacing: 10.9375 kHz
	TTG, RTG: 105 us, 60 us
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	5.0 ms

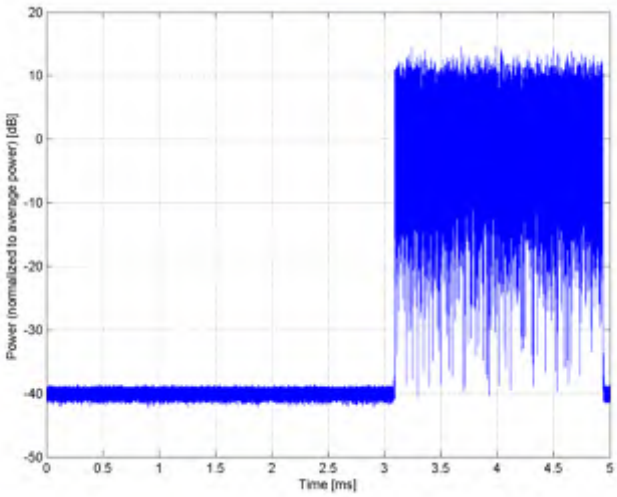
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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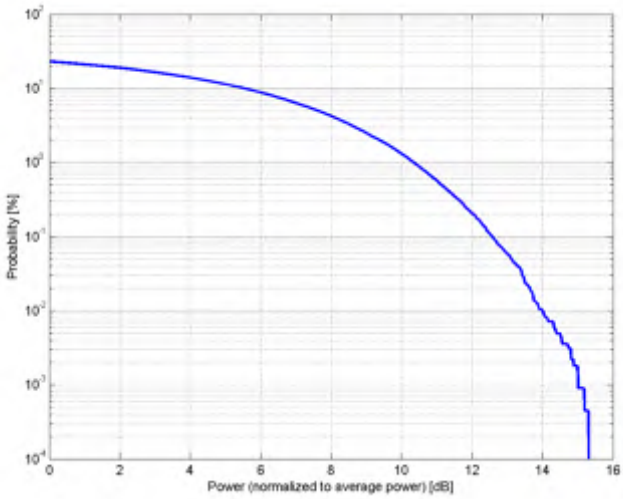
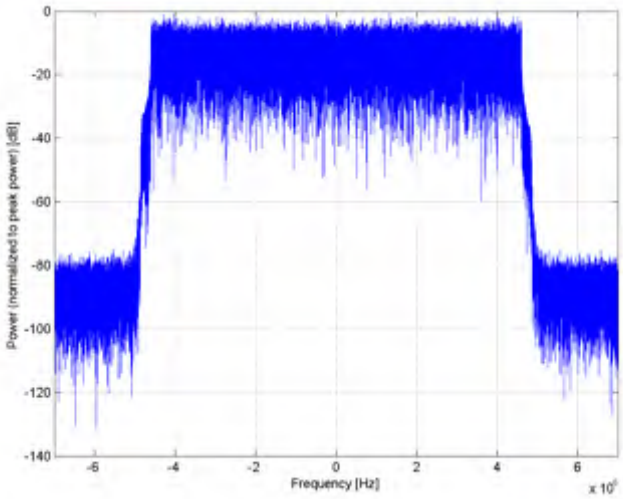
Name:	**IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)**
Group:	WiMAX
UID:	10302-AAA
PAR: [1]	**12.57 dB**
MIF: [2]	**-0.84 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01) IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075) Band Class 3 (2496.0-2690.0 MHz, 20076) Band Class 5 (3400.0-3800.0 MHz, 20077) Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA DL:UL Symbols Ratio: 29:18 Frame Size: 5ms Bandwidth: 10MHz Modulation Scheme: QPSK(CTC)1/2 FFT Size: 1024 Sampling Factor: 28/25 Sampling Frequency: 44.8 MHz Oversampling Ratio: 4 Subcarrier Spacing: 10.9375 kHz TTG, RTG: 105 us, 60 us Numbers of DL Symbols active: 0 Numbers of UL Symbols active: 18 (15 traffic symbols + 3 control symbols) UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	5.0 ms

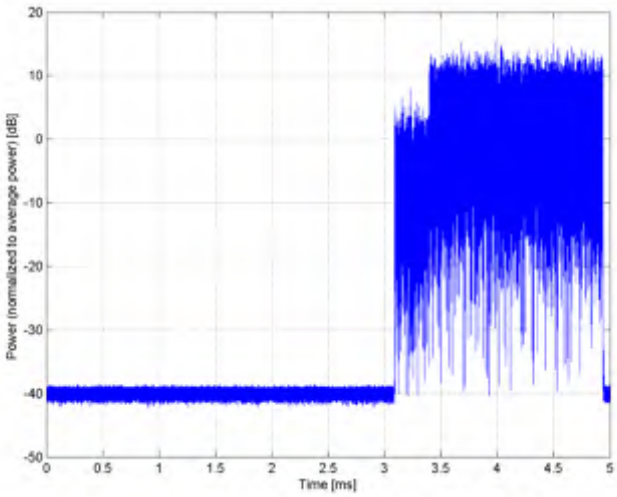
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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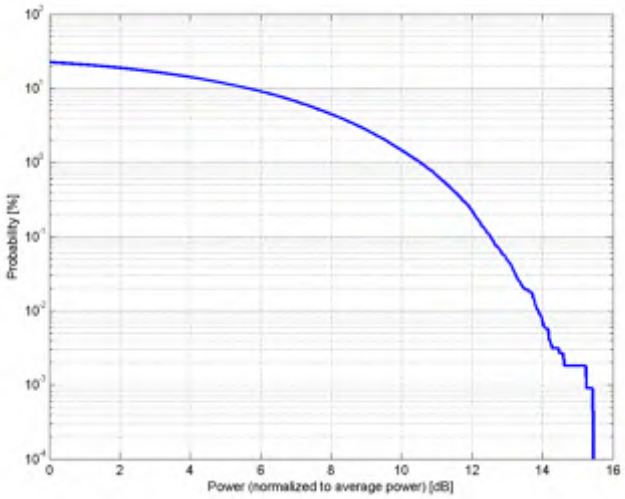
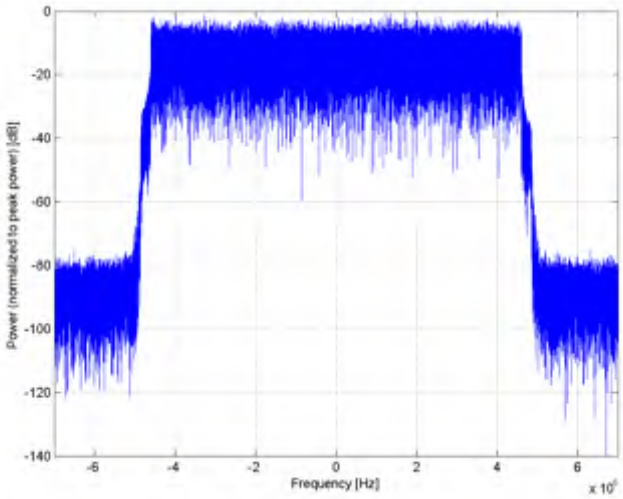
Name:	**IEEE 802.16e WiMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)**
Group:	WiMAX
UID:	10303-AAA
PAR: [1]	**12.52 dB**
MIF: [2]	**-0.53 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 31:15
	Frame Size: 5ms
	Bandwidth: 10MHz
	Modulation Scheme: 64QAM(CTC) 5/6
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 44.8 MHz
	Oversampling Ratio: 4
	Subcarrier Spacing: 10.9375 kHz
	TTG, RTG: 2 us, 60 us
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 15 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	5.0 ms

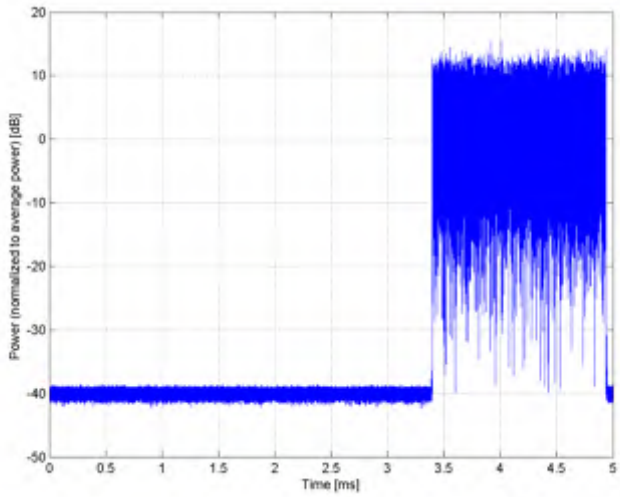
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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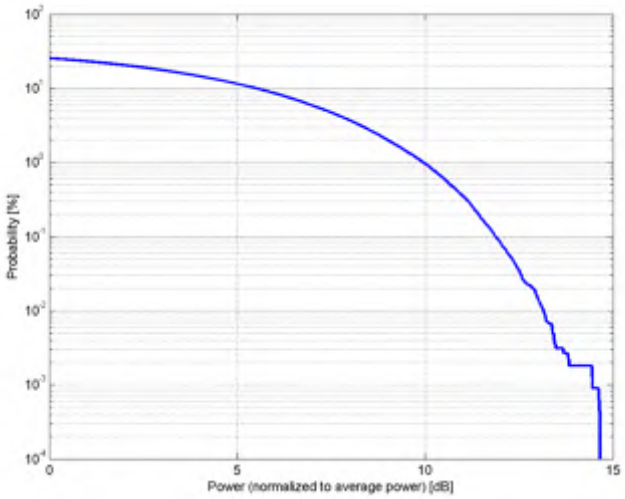
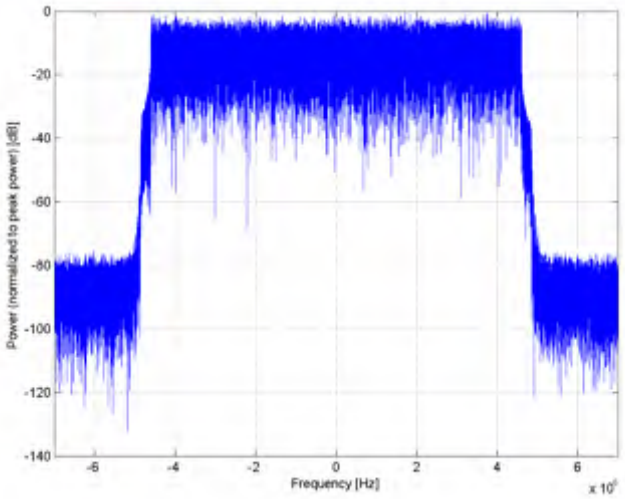
Name:	**IEEE 802.16e WiMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)**
Group:	WiMAX
UID:	10304-AAA
PAR: [1]	**11.86 dB**
MIF: [2]	**-1.39 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 5ms
	Bandwidth: 10MHz
	Modulation Scheme: 64QAM(CTC)5/6
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 44.8 MHz
	Oversampling Ratio: 4
	Subcarrier Spacing: 10.9375 kHz
	TTG, RTG: 105 us, 60 us
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	5.0 ms

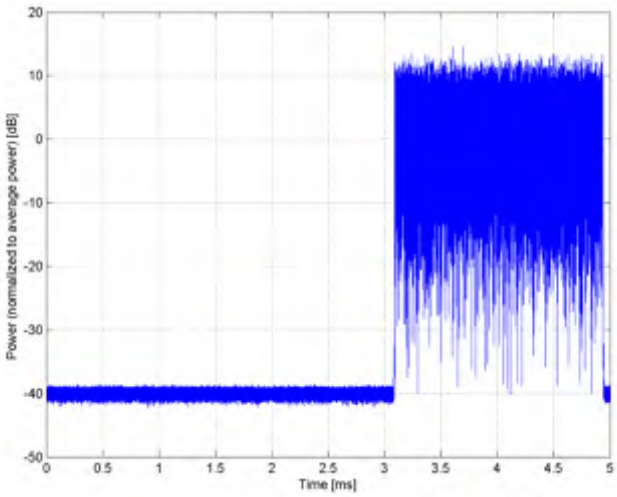
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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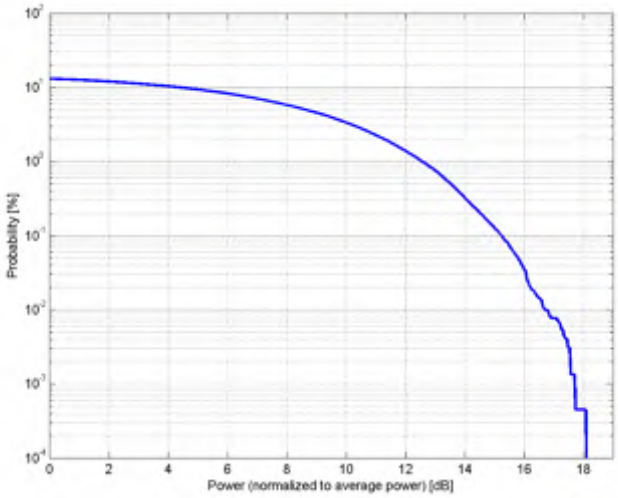
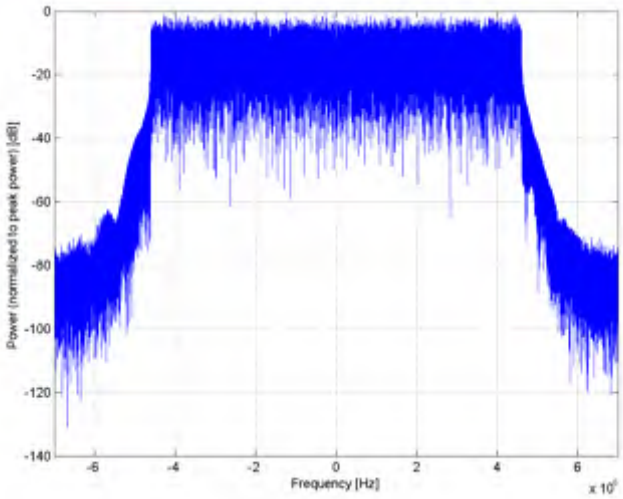
Name:	**IEEE 802.16e WiMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)**
Group:	WiMAX
UID:	10305-AAA
PAR: [1]	**15.24 dB**
MIF: [2]	**1.74 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 31:15
	Frame Size: 10ms
	Bandwidth: 10MHz
	Modulation Scheme: 64QAM(CTC) 5/6
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 22.4 MHz
	Oversampling Ratio: 2
	Subcarrier Spacing: 10.9375 kHz
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 15 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

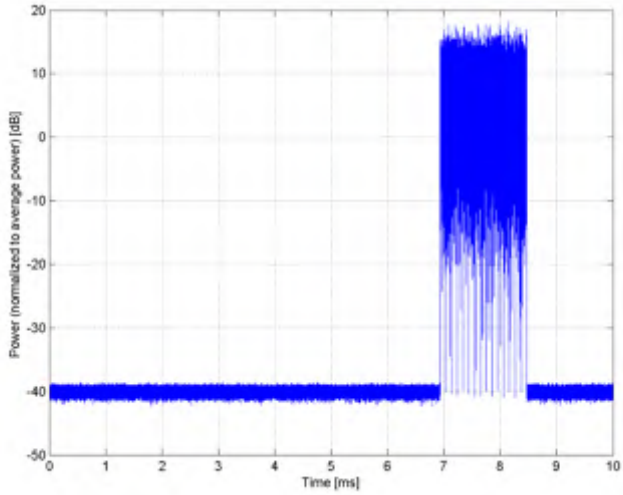
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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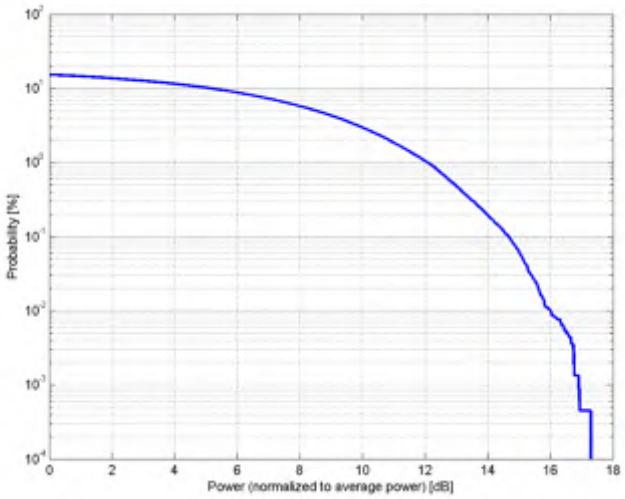
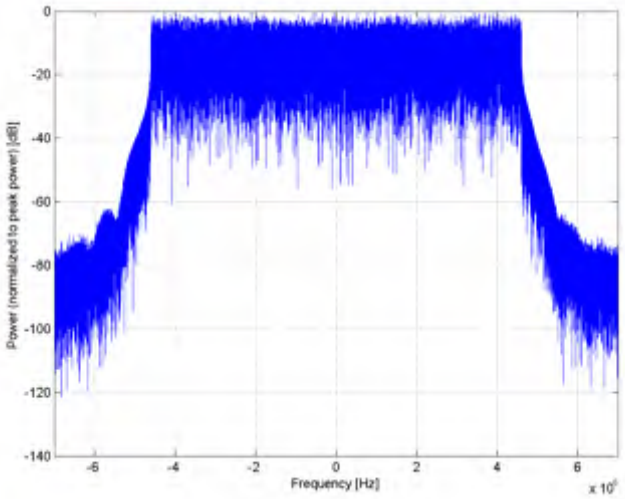
Name:	**IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18 symbols)**
Group:	WiMAX
UID:	10306-AAA
PAR: [1]	**14.67 dB**
MIF: [2]	**0.91 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 10ms
	Bandwidth: 10MHz
	Modulation Scheme: 64QAM(CTC) 5/6
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 22.4 MHz
	Oversampling Ratio: 2
	Subcarrier Spacing: 10.9375 kHz
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

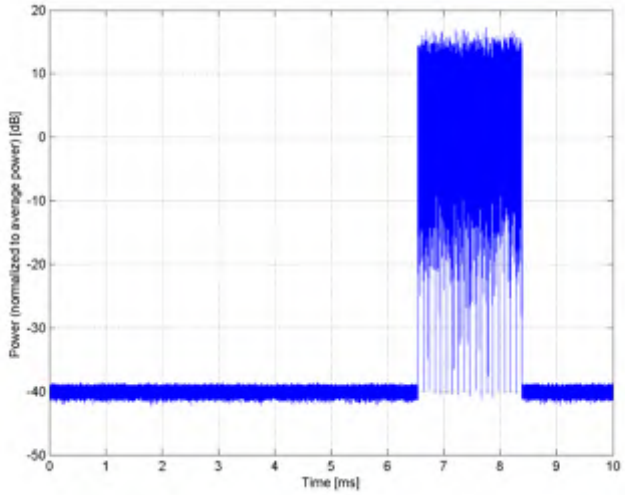
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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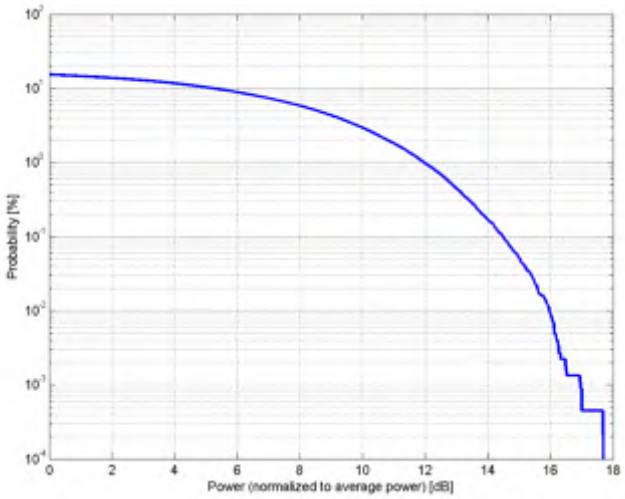
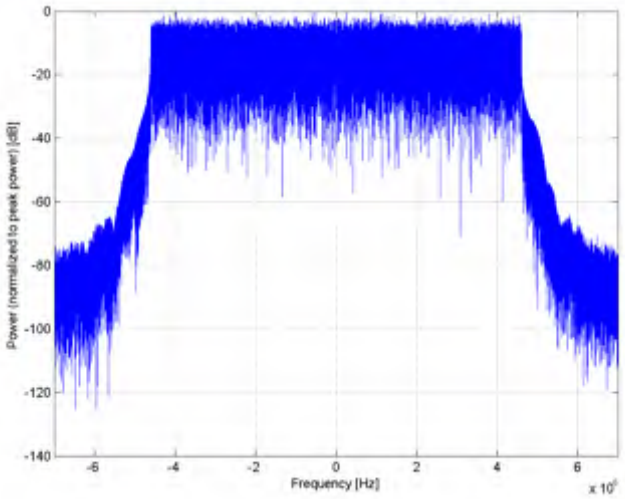
Name:	**IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)**
Group:	WiMAX
UID:	10307-AAA
PAR: [1]	**14.49 dB**
MIF: [2]	**0.89 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 10ms
	Bandwidth: 10 MHz
	Modulation Scheme: QPSK(CTC)3/4
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 22.4 MHz
	Oversampling Ratio: 2
	Subcarrier Spacing: 10.9375 kHz
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

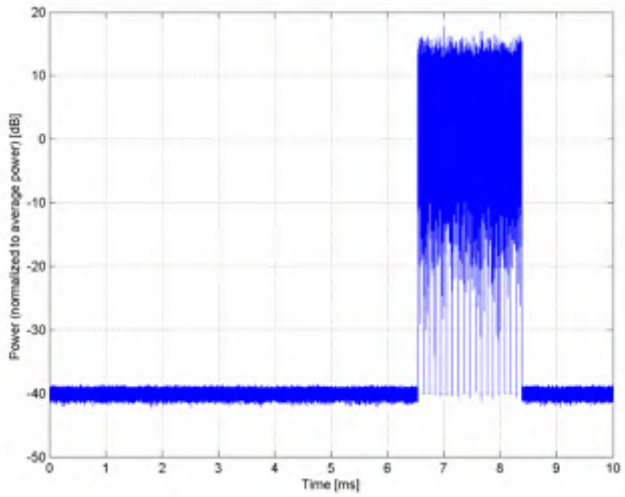
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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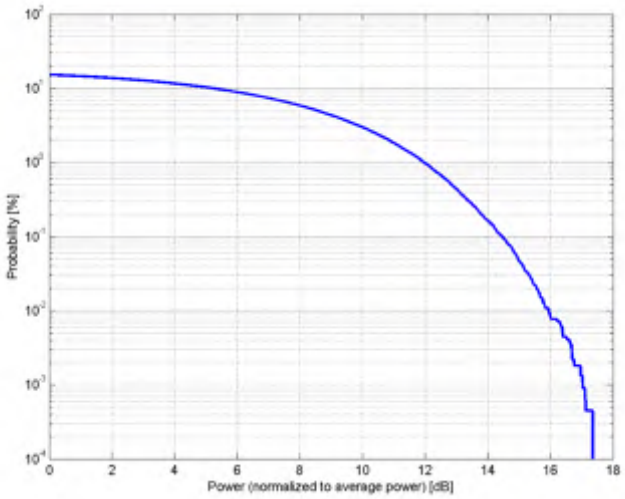
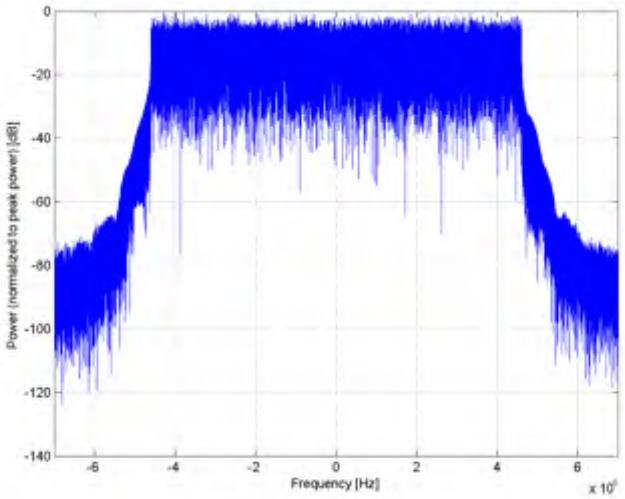
Name:	**IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)**
Group:	WiMAX
UID:	10308-AAA
PAR: [1]	**14.46 dB**
MIF: [2]	**0.91 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 10ms
	Bandwidth: 10 MHz
	Modulation Scheme: 16QAM(CTC)3/4
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 22.4 MHz
	Oversampling Ratio: 2
	Subcarrier Spacing: 10.9375 kHz
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: PUSC
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

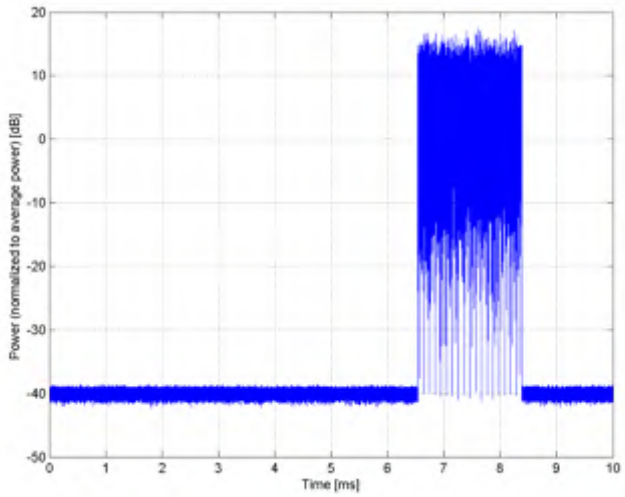
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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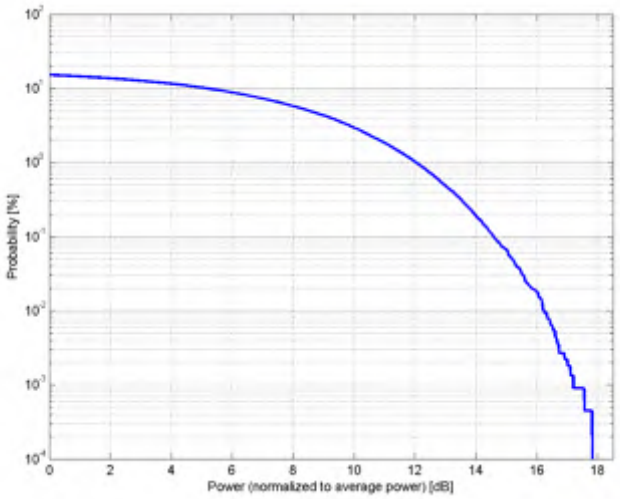
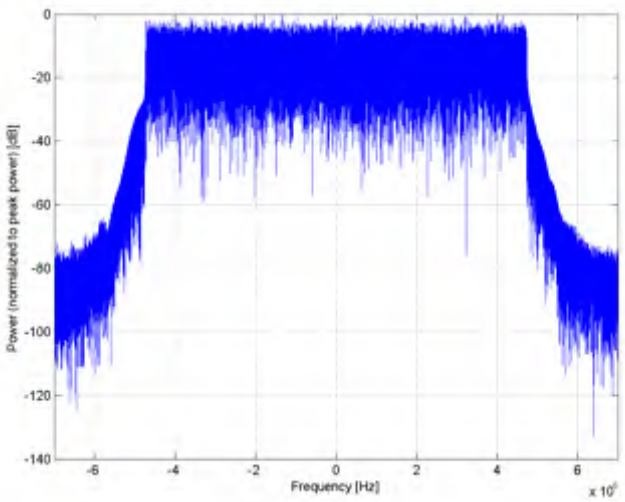
Name:	**IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)**
Group:	WiMAX
UID:	10309-AAA
PAR: [1]	**14.58 dB**
MIF: [2]	**0.90 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 10ms
	Bandwidth: 10 MHz
	Modulation Scheme: 16QAM(CTC)3/4
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 22.4 MHz
	Oversampling Ratio: 2
	Subcarrier Spacing: 10.9375 kHz
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: AMC 2x3
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

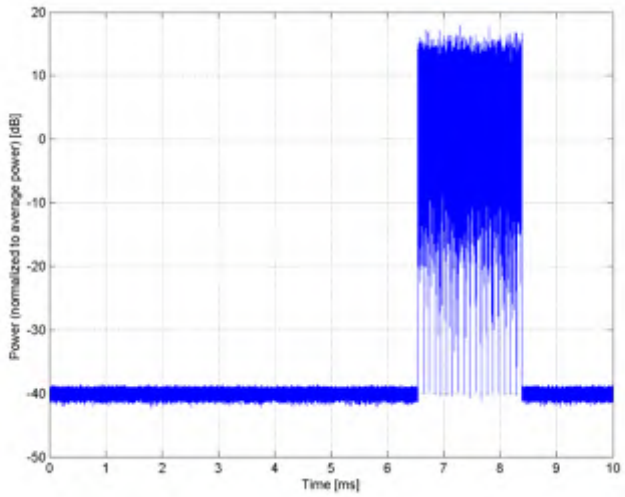
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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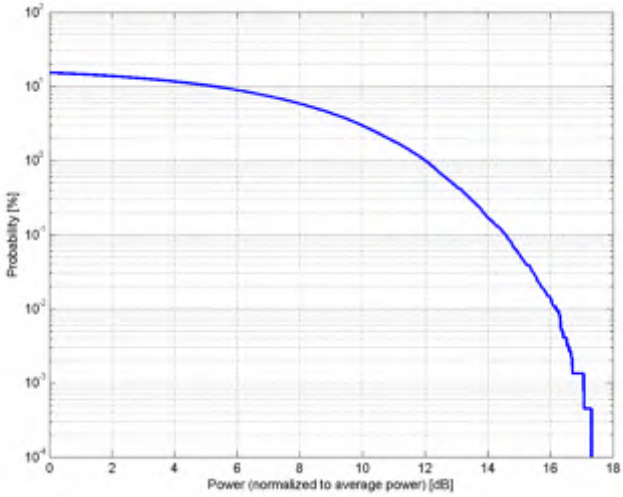
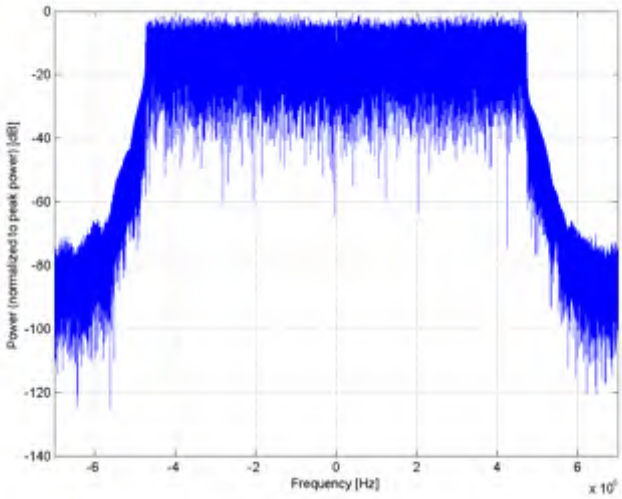
Name:	**IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, AMC 2x3, 18 symbols)**
Group:	WiMAX
UID:	10310-AAA
PAR: [1]	**14.57 dB**
MIF: [2]	**0.89 dB**
Standard Reference:	FCC 802.16e WiMax SARGuidance v01 (615223 D01)
	IEEE802.16e-2005 P802.16Rev2/D3 WirelessMAN-OFDMA
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band Class 1 (2300.0-2400.0 MHz, 20075)
	Band Class 3 (2496.0-2690.0 MHz, 20076)
	Band Class 5 (3400.0-3800.0 MHz, 20077)
	Band Class 6, AWS (1710.0-1755.0 MHz, 20078)
Detailed Specification:	Transmission: OFDMA
	DL:UL Symbols Ratio: 29:18
	Frame Size: 10ms
	Bandwidth: 10 MHz
	Modulation Scheme: QPSK(CTC)3/4
	FFT Size: 1024
	Sampling Factor: 28/25
	Sampling Frequency: 22.4 MHz
	Oversampling Ratio: 2
	Subcarrier Spacing: 10.9375 kHz
	Numbers of DL Symbols active: 0
	Numbers of UL Symbols active: 18 traffic symbols
	UL Zone Types: AMC 2x3
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

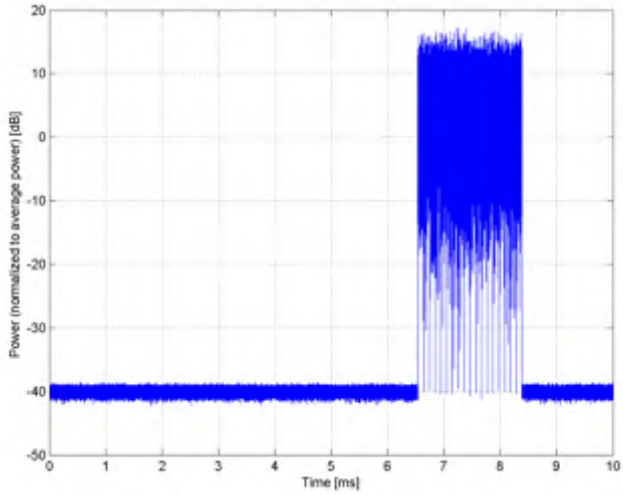
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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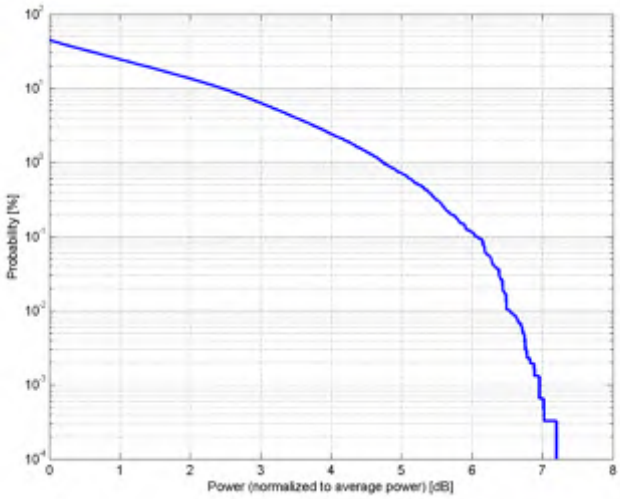
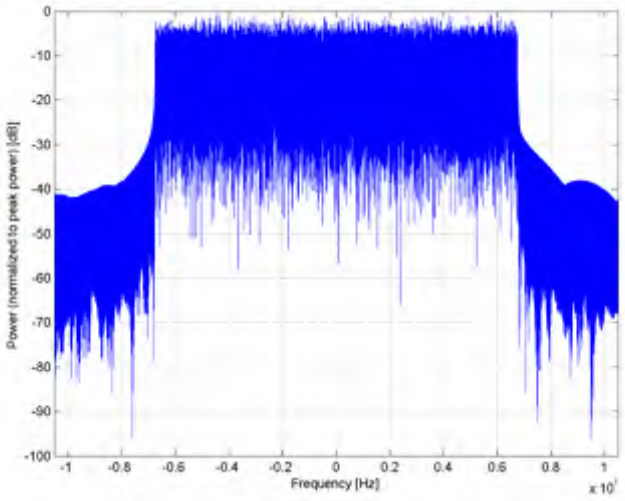
Name:	**LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)**
Group:	LTE-FDD
UID:	10311-AAC
PAR: [1]	**6.06 dB**
MIF: [2]	**-20.11 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, E-UTRA/FDD (1920.0 - 1980.0 MHz) Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz) Band 3, E-UTRA/FDD (1710.0 - 1785.0 MHz) Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz) Band 7, E-UTRA/FDD (2500.0 - 2570.0 MHz) Band 9, E-UTRA/FDD (1749.9 - 1784.9 MHz) Band 10, E-UTRA/FDD (1710.0 - 1770.0 MHz) Band 18, E-UTRA/FDD (815.0 - 830.0 MHz) Band 19, E-UTRA/FDD (830.0 - 845.0 MHz) Band 20, E-UTRA/FDD (832.0 - 862.0 MHz) Band 21, E-UTRA/FDD (1447.9 - 1462.9 MHz) Band 22, E-UTRA/FDD (3410.0 - 3490.0 MHz) Band 23, E-UTRA/FDD (2000.0 - 2020.0 MHz) Band 25, E-UTRA/FDD (1850.0 - 1915.0 MHz) Band 26 E-UTRA/FDD (814.0 - 849.0 MHz) Band 28 E-UTRA/FDD (703.0 - 748.0 MHz) Band 65, E-UTRA/FDD (1920.0 - 2010.0 MHz) Band 66, E-UTRA/FDD (1710.0 - 1780.0 MHz) Band 68, E-UTRA/FDD (698.0 - 728.0 MHz) Band 70, E-UTRA/FDD (1695.0 - 1710.0 MHz) Band 71, E-UTRA/FDD (663.0 - 698.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Modulation Scheme: SC-FDMA Number of PUSCHs: 1 Settings for Subframe #0 to #9: Modulation Scheme: QPSK Data Type: UL-SCH Number RB: 75 Transport Block Size: 6712 TBS Index: 5 MCS Index: 5 Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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

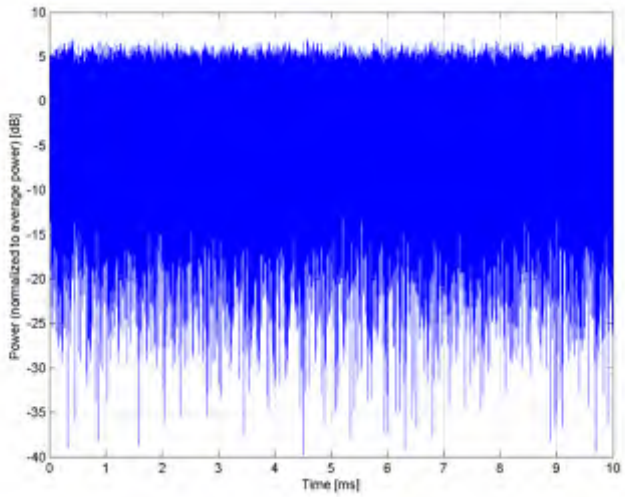
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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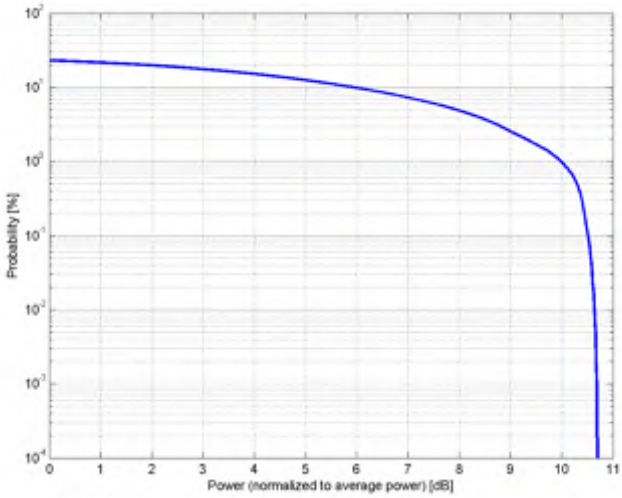
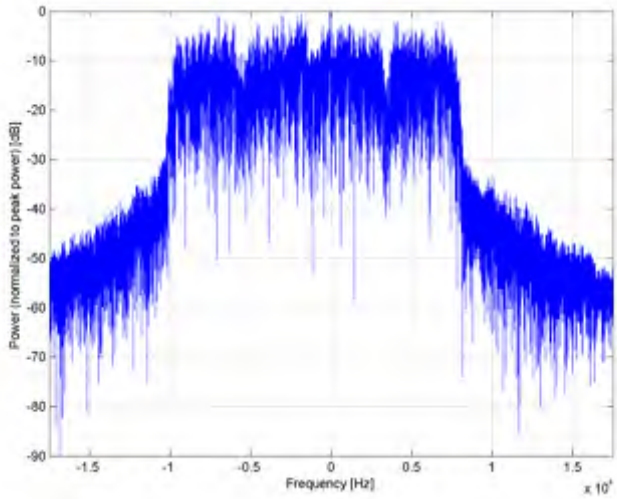
Name:	**iDEN 1:3**
Group:	iDEN
UID:	10313-AAA
PAR: [1]	**10.51 dB**
MIF: [2]	**1.15 dB**
Standard Reference:	-
Category:	Periodic pulsed modulation
Modulation:	-
Frequency Band:	PMR 800 (806.0-825.0 MHz, 20071) PMR 900 (896.0-901.0 MHz, 20072) PMR 1450 (1453.0-1465.0 MHz, 20073)
Detailed Specification:	Train setting off
Bandwidth:	0.0 MHz
Integration Time:	540.0 ms

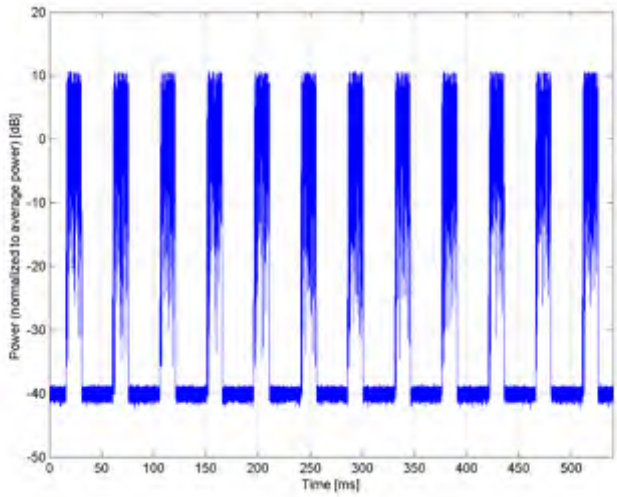
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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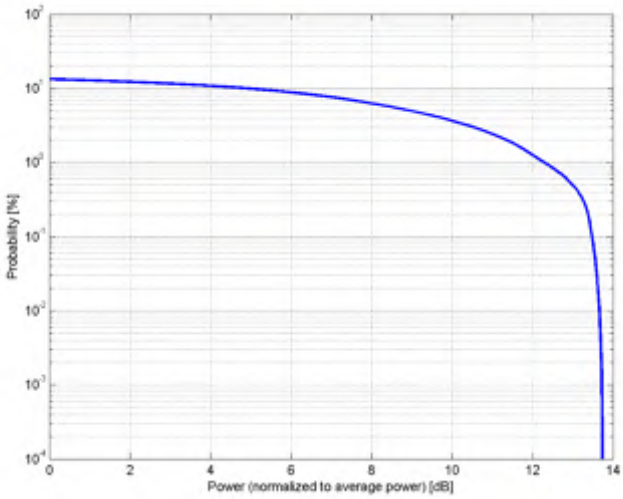
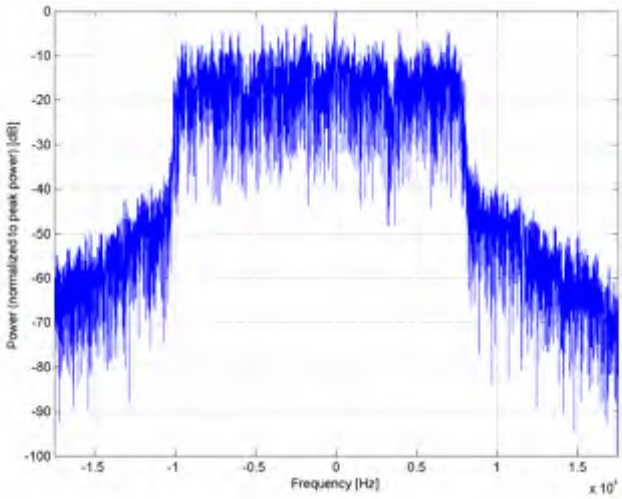
Name:	**iDEN 1:6**
Group:	iDEN
UID:	10314-AAA
PAR: [1]	**13.48 dB**
MIF: [2]	**4.03 dB**
Standard Reference:	-
Category:	Periodic pulsed modulation
Modulation:	-
Frequency Band:	PMR 800 (806.0-825.0 MHz, 20071) PMR 900 (896.0-901.0 MHz, 20072) PMR 1450 (1453.0-1465.0 MHz, 20073)
Detailed Specification:	Train setting off
Bandwidth:	0.0 MHz
Integration Time:	540.0 ms

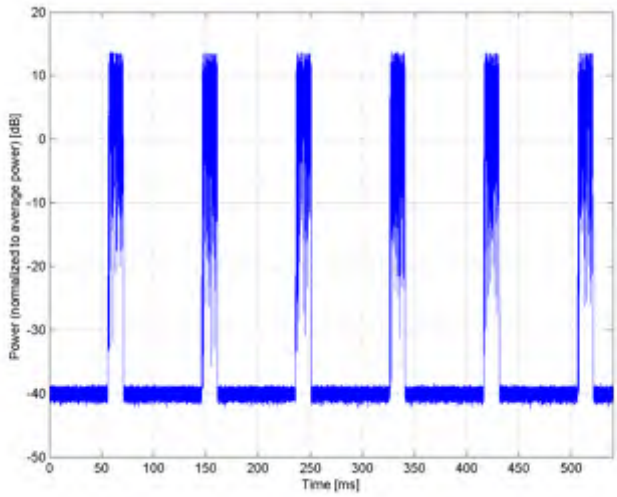
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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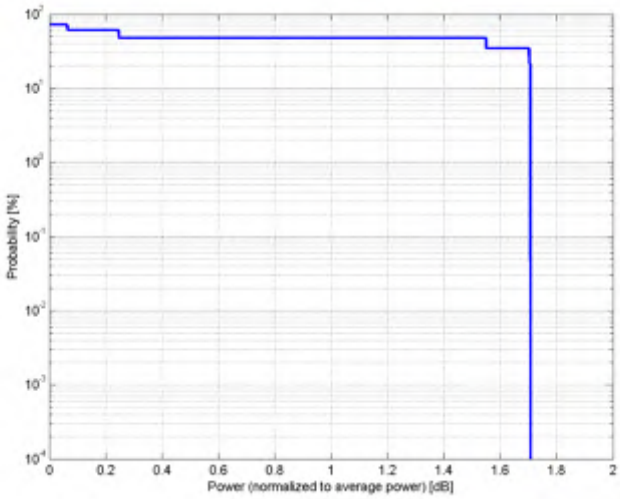
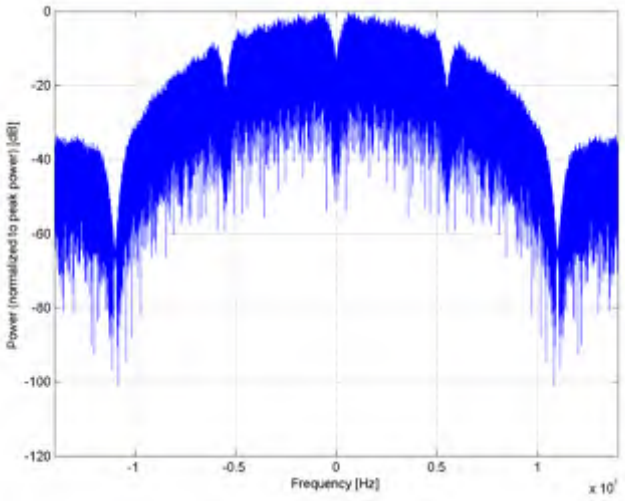
Name:	**IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)**
Group:	WLAN
UID:	10315-AAB
PAR: [1]	**1.71 dB**
MIF: [2]	**-6.80 dB**
Standard Reference:	IEEE 802.11b-1999 , Part 11 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	DBPSK
Frequency Band:	WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification:	Duty cycle: 96 % PSDU length: 1024 bytes Preambule type: long Data Rate: 1Mbps Burst on time: 8384us
Bandwidth:	20.0 MHz
Integration Time:	8.7 ms

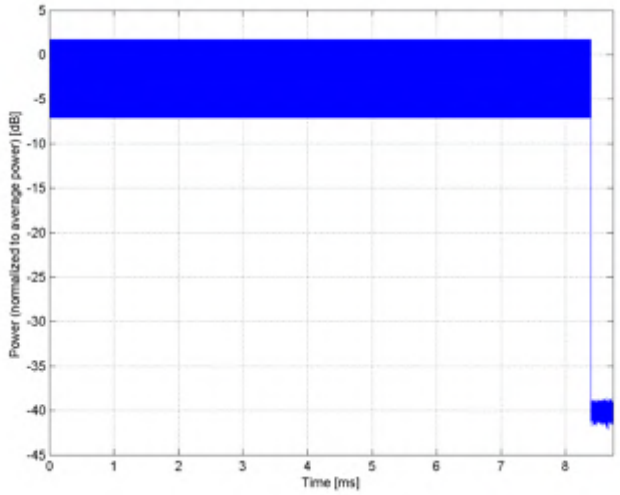
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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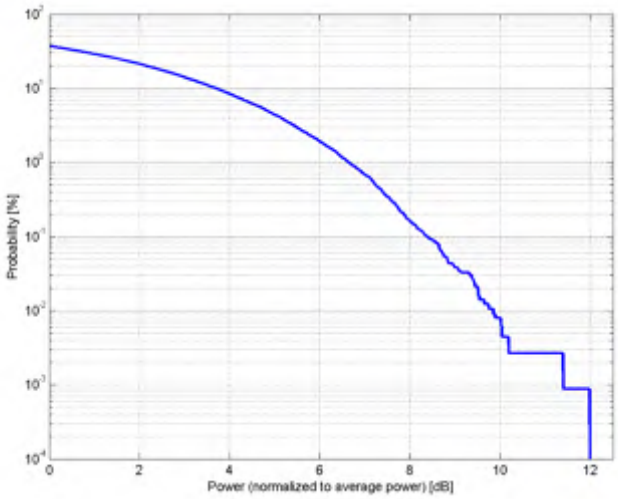
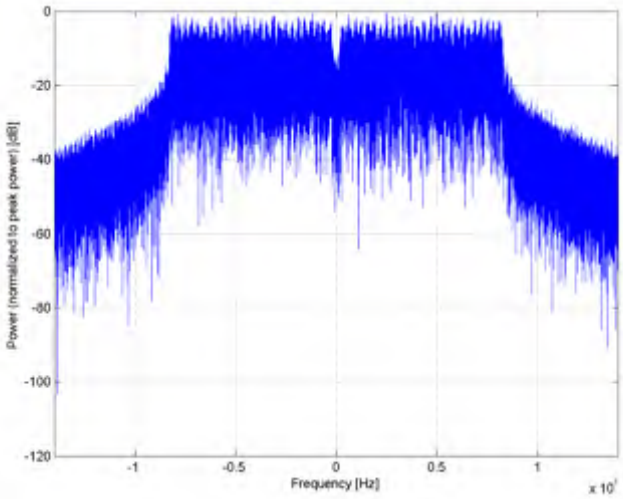
Name:	**IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)**
Group:	WLAN
UID:	10316-AAB
PAR: [1]	**8.36 dB**
MIF: [2]	**-9.82 dB**
Standard Reference:	IEEE 802.11g-2003 , Part 11 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification:	Duty cycle: 96 % PSDU length: 1000 bytes Frame format: ERP-OFDM Data Rate: 6Mbps Burst on time: 1360us
Bandwidth:	20.0 MHz
Integration Time:	1.4 ms

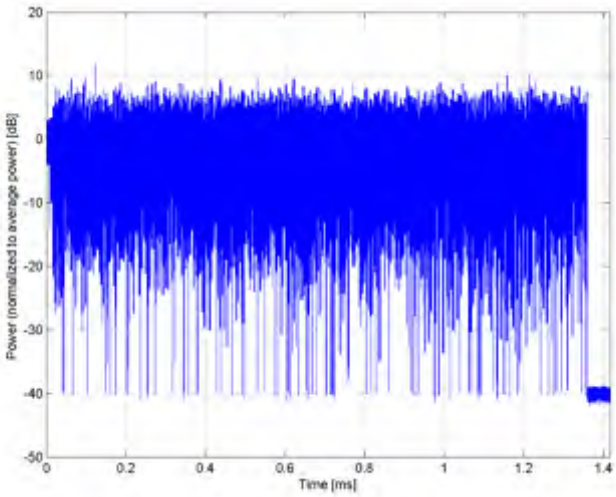
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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Name:	**IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)**
Group:	WLAN
UID:	10317-AAC
PAR: [1]	**8.36 dB**
MIF: [2]	**-9.82 dB**
Standard Reference:	IEEE 802.11a-1999 (R2003) , Part 11 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: 96% PSDU length: 1000 bytes Data Rate: 6Mbps Burst on time: 1360us
Bandwidth:	20.0 MHz
Integration Time:	1.4 ms

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

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

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

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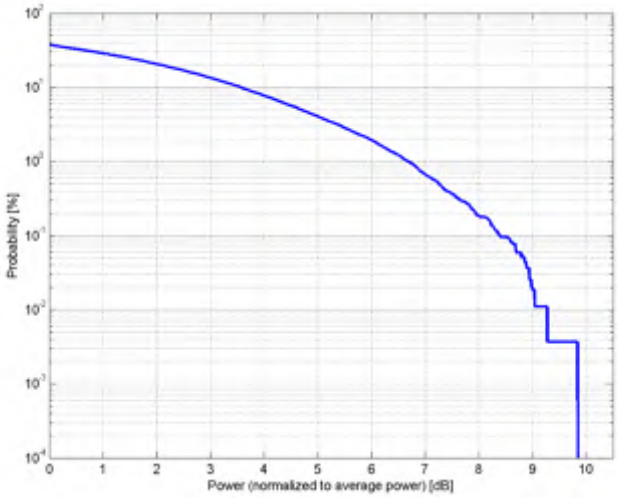
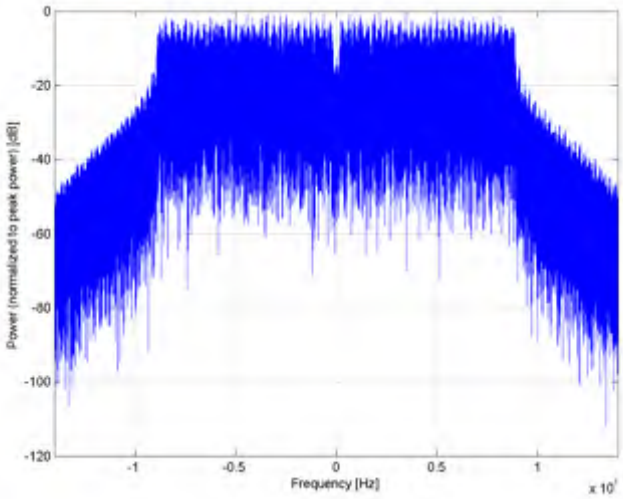
Name:	**IEEE 802.11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)**
Group:	WLAN
UID:	10400-AAD
PAR: [1]	**8.37 dB**
MIF: [2]	**-17.01 dB**
Standard Reference:	-
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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: 20MHz Duty cycle: 99% MCS: 5 Number of spatial streams: 1 MPDU length: 4096
Bandwidth:	20.0 MHz
Integration Time:	6.8 ms

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

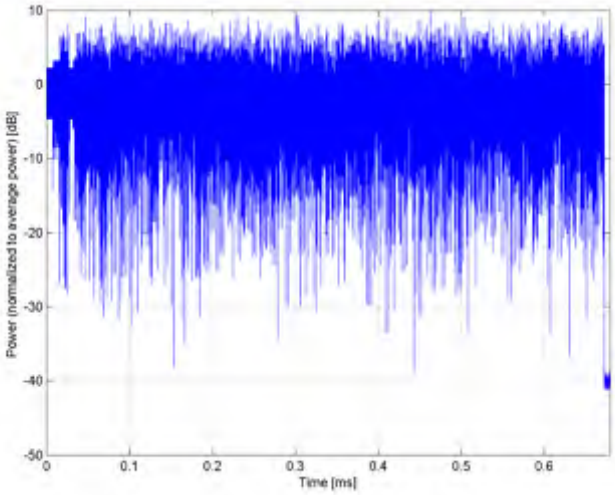
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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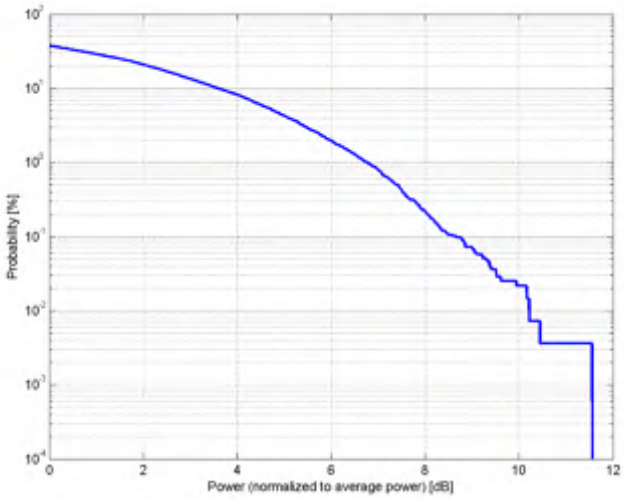
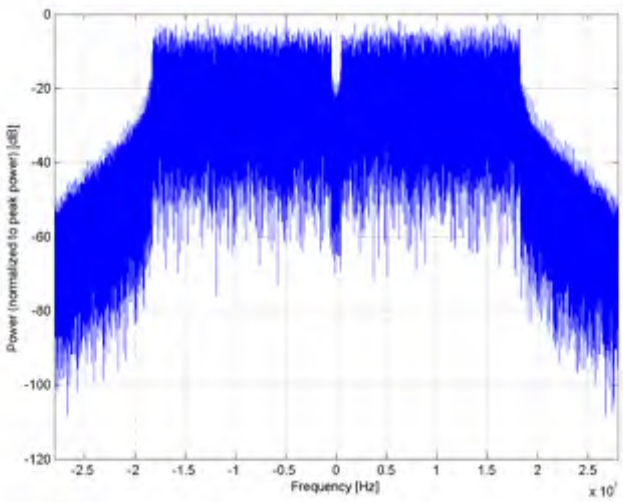
Name:	**IEEE 802.11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)**
Group:	WLAN
UID:	10401-AAD
PAR: [1]	**8.60 dB**
MIF: [2]	**-15.53 dB**
Standard Reference:	-
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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: 40MHz Duty cycle: 99% MCS: 5 Number of spatial streams: 1 MPDU length: 4096
Bandwidth:	40.0 MHz
Integration Time:	3.5 ms

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

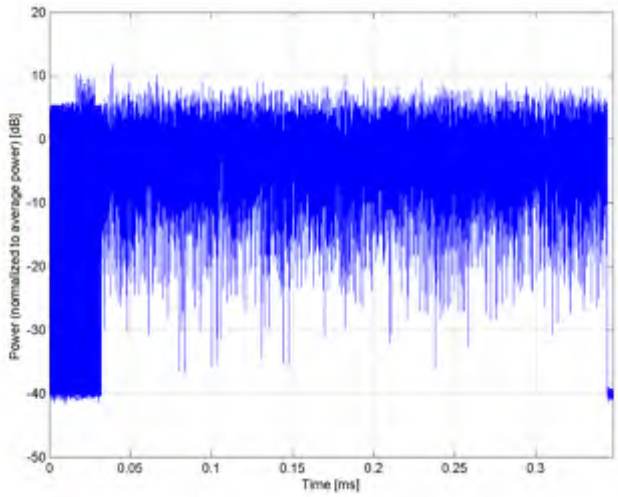
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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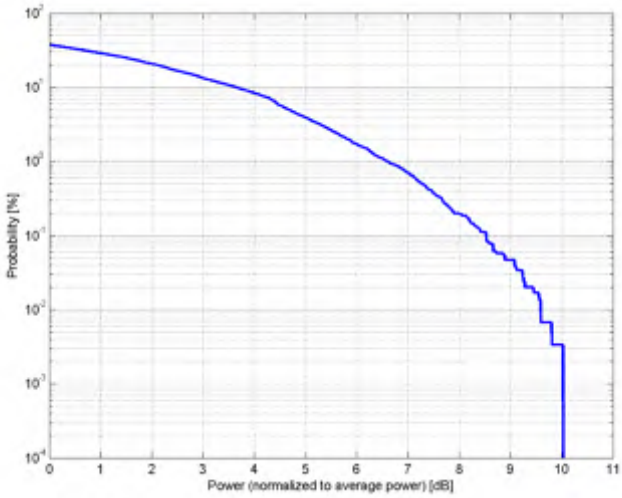
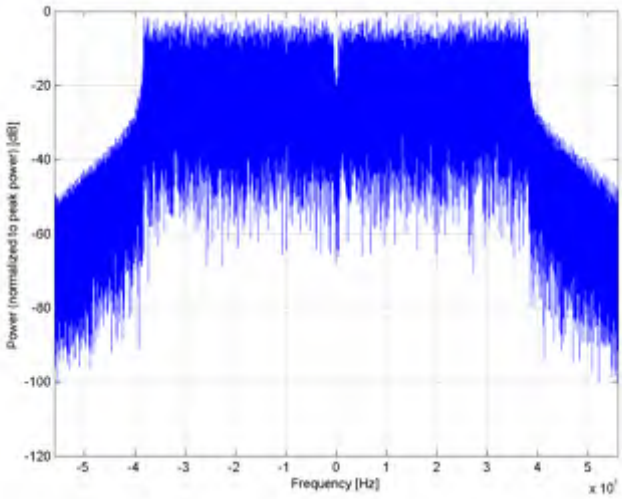
Name:	**IEEE 802.11ac WiFi (80MHz, 64-QAM, 99pc duty cycle)**
Group:	WLAN
UID:	10402-AAD
PAR: [1]	**8.53 dB**
MIF: [2]	**-28.95 dB**
Standard Reference:	-
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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: 80MHz Duty cycle: 99% MCS: 5 Number of spatial streams: 1 MPDU length: 4096
Bandwidth:	80.0 MHz
Integration Time:	1.9 ms

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

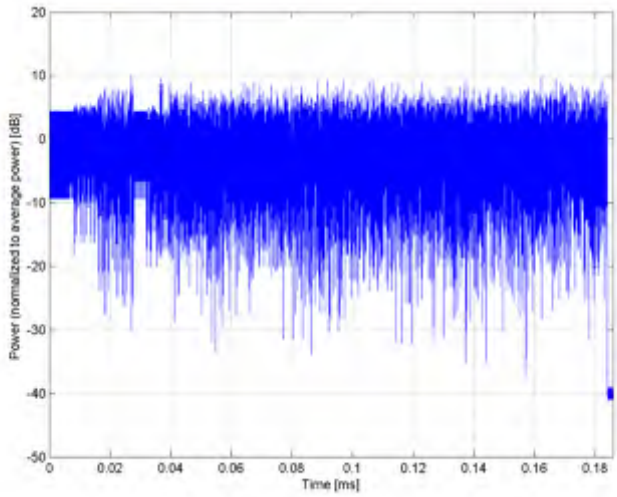
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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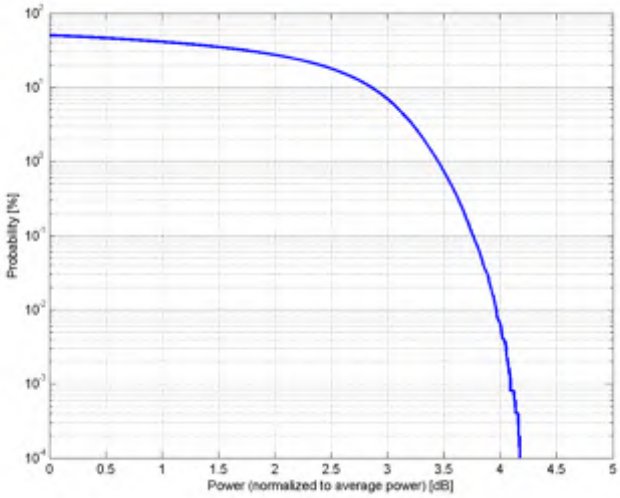
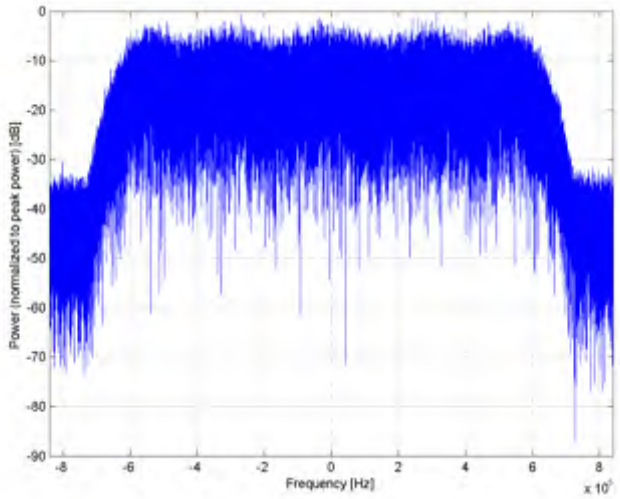
Name:	**CDMA2000 (1xEV-DO, Rev. 0)**
Group:	CDMA2000
UID:	10403-AAB
PAR: [1]	**3.76 dB**
MIF: [2]	**-17.67 dB**
Standard Reference:	941225 D01 SAR test for 3G devices v02
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	Band Class 0 (815.0-849.0 MHz, 20220) Band Class 1 (1850.0-1910.0 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 0 Reverse Data Channel: 153.6kbps Forward Traffic Channel: 2-slot version of 307.2kbps, ACK channel transmitting in all slots Access Terminal Power Control: ”All bits up”
Bandwidth:	1.2 MHz
Integration Time:	100.0 ms

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

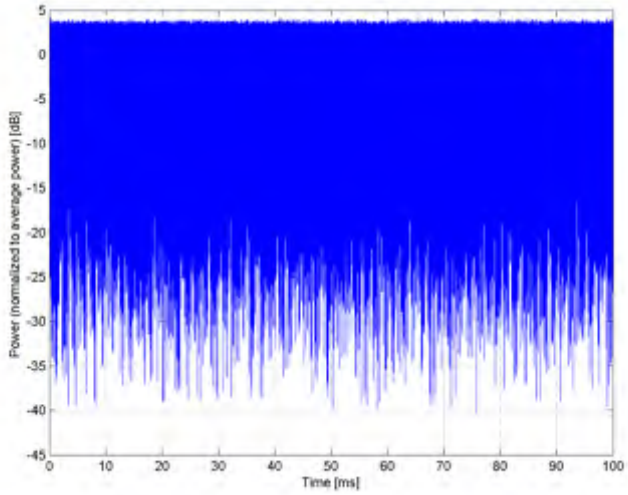
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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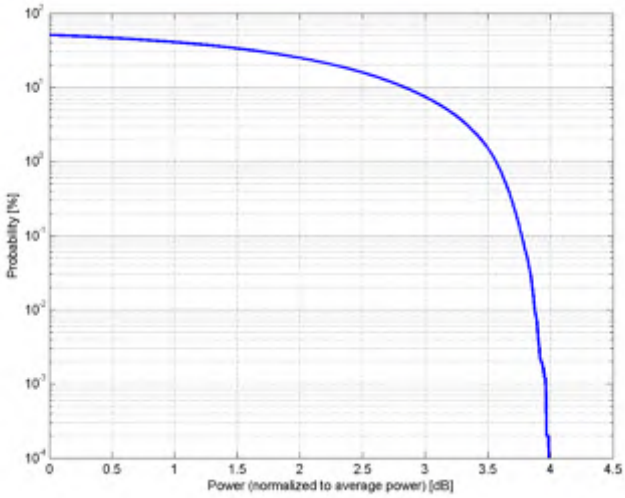
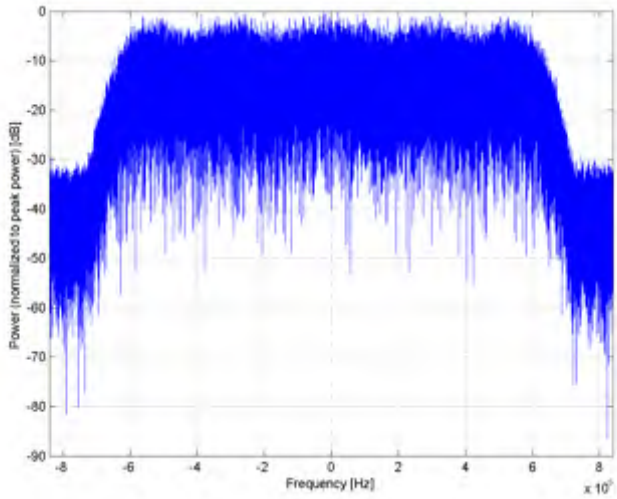
Name:	**CDMA2000 (1xEV-DO, Rev. A)**
Group:	CDMA2000
UID:	10404-AAB
PAR: [1]	**3.77 dB**
MIF: [2]	**-18.50 dB**
Standard Reference:	941225 D01 SAR test for 3G devices v02
Category:	Random amplitude modulation
Modulation:	Q2
Frequency Band:	Band Class 0 (815.0-849.0 MHz, 20220) Band Class 1 (1850.0-1910.0 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:	1.2 MHz
Integration Time:	100.0 ms

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

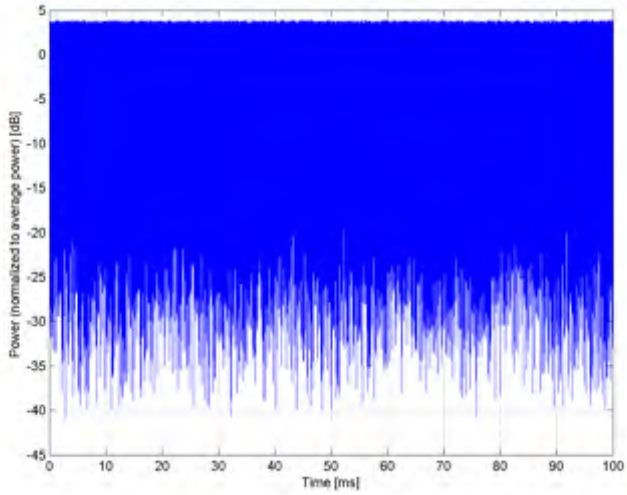
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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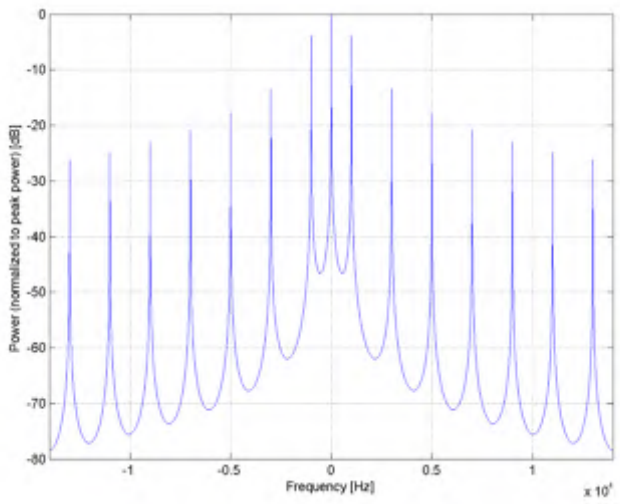
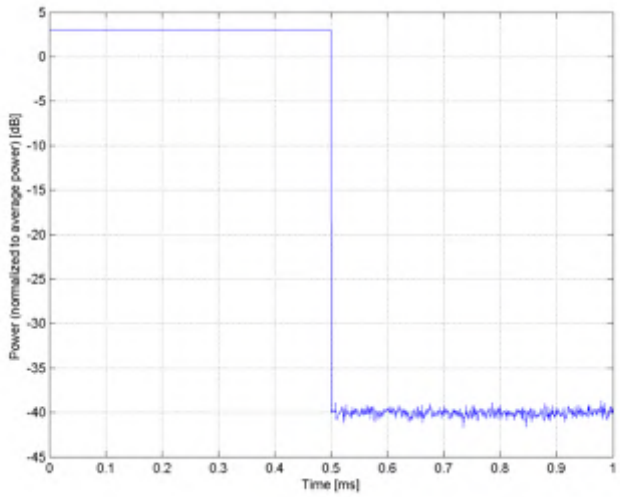
Name:	**MRI (Square, 1ms, 0.5ms)**
Group:	MRI
UID:	10405-AAC
PAR: [1]	**3.01 dB**
MIF: [2]	**-0.87 dB**
Standard Reference:	-
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	Custom Calibration Sequence Pulse Shape: rectangular Repetition Rate: 1 kHz Duty Cycle: 50%
Bandwidth:	0.0 MHz
Integration Time:	1.0 ms

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

Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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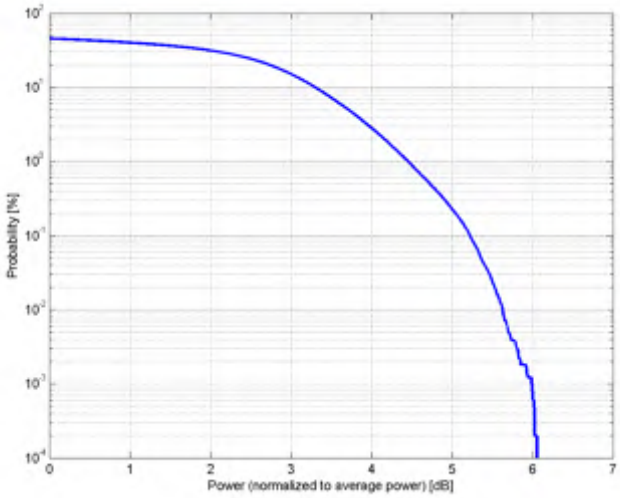
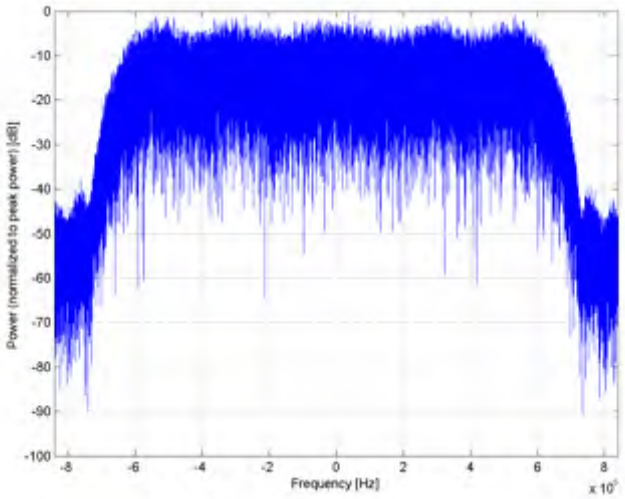
Name:	**CDMA2000, RC3, SO32, SCH0, Full Rate**
Group:	CDMA2000
UID:	10406-AAB
PAR: [1]	**5.22 dB**
MIF: [2]	**-16.62 dB**
Standard Reference:	3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3 FCC OET KDB 941225 D01 SAR test for 3G devices (v02)
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	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:	Radio Configuration 3 (RC3) Service Option 32 (SO32) SCH0 enabled Full frame rate FCH level: -7.4dB Power control bits: All bits up SCH0 level: -7dB PCH level: -12dB QPCH off Protocol revision: 6
Bandwidth:	1.2 MHz
Integration Time:	100.0 ms

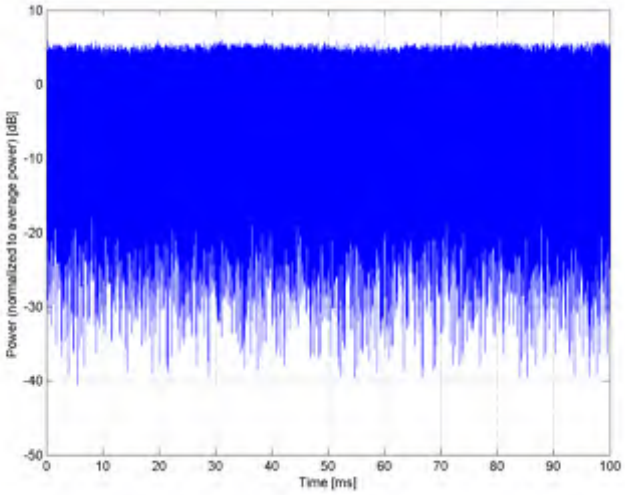
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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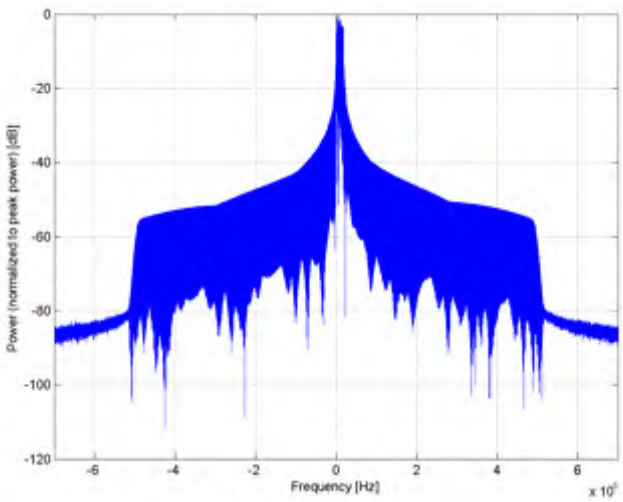
Name:	**LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)**
Group:	LTE-TDD
UID:	10410-AAD
PAR: [1]	**7.82 dB**
MIF: [2]	**-3.41 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random 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) 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

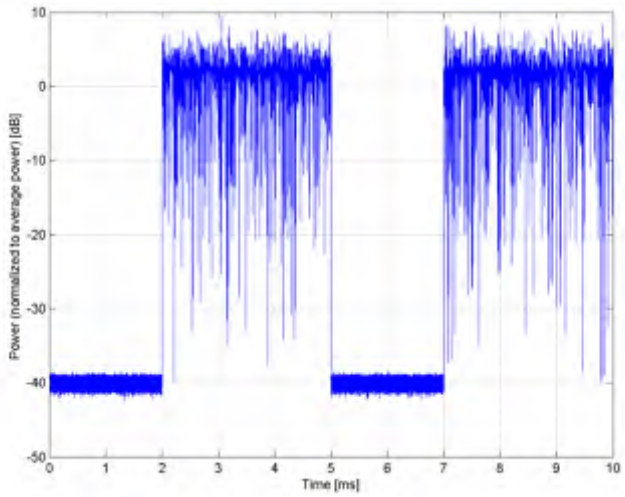
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)"'

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

Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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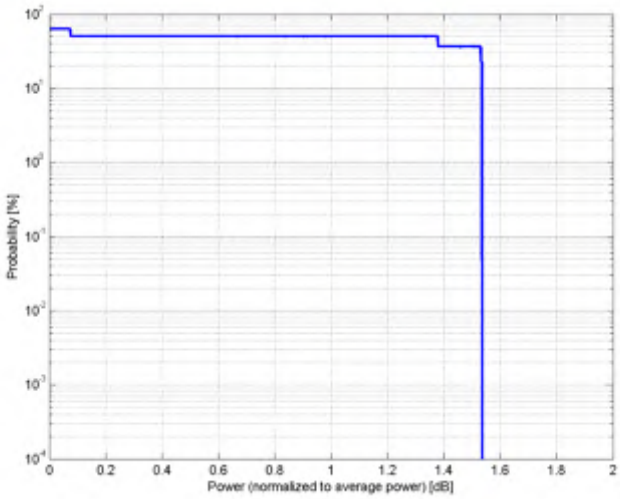
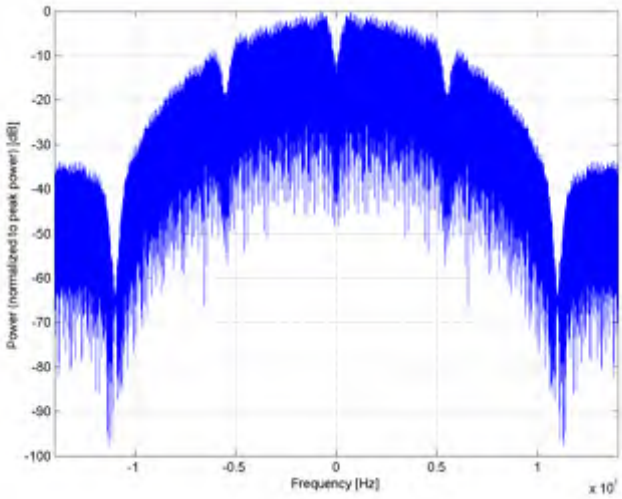
Name:	**IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)**
Group:	WLAN
UID:	10415-AAA
PAR: [1]	**1.54 dB**
MIF: [2]	**-17.55 dB**
Standard Reference:	IEEE 802.11-2012 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	DBPSK
Frequency Band:	WLAN 2.4GHz (2412.0-2484.0 MHz, 20230)
Detailed Specification:	Duty cycle: 99 % PSDU length: 1024 bytes Preambule type: long Data Rate: 1Mbps Burst on time: 8384us
Bandwidth:	20.0 MHz
Integration Time:	8.5 ms

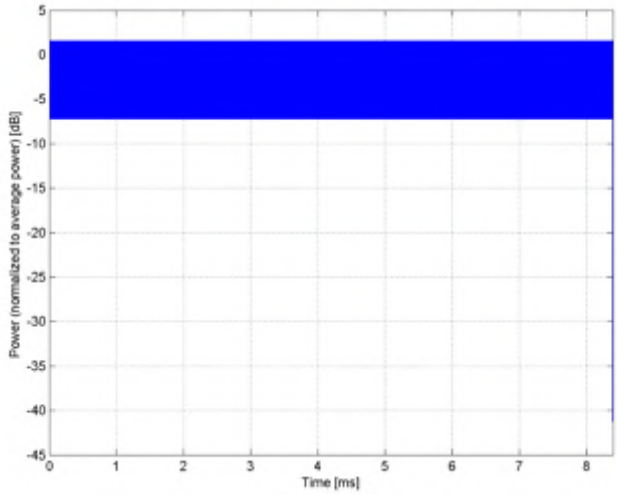
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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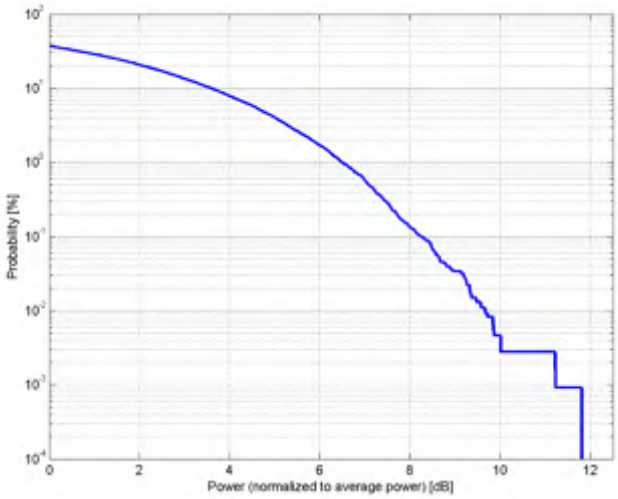
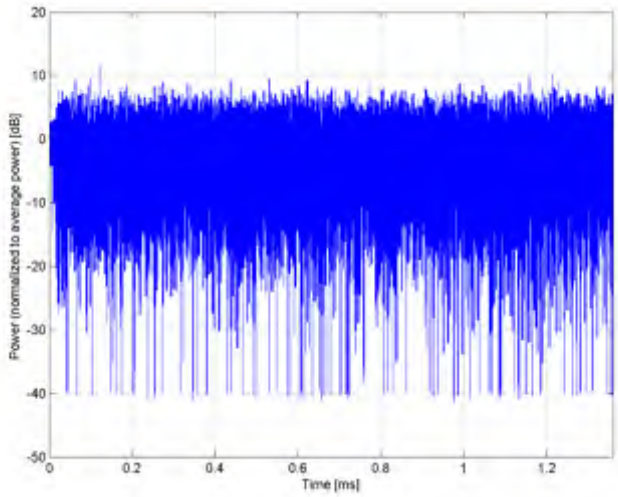
Name:	**IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)**
Group:	WLAN
UID:	10416-AAA
PAR: [1]	**8.23 dB**
MIF: [2]	**-18.74 dB**
Standard Reference:	IEEE 802.11 2012 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	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

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



Complementary Cumulative Distribution Function (CCDF)

Frequency Domain



Time Domain

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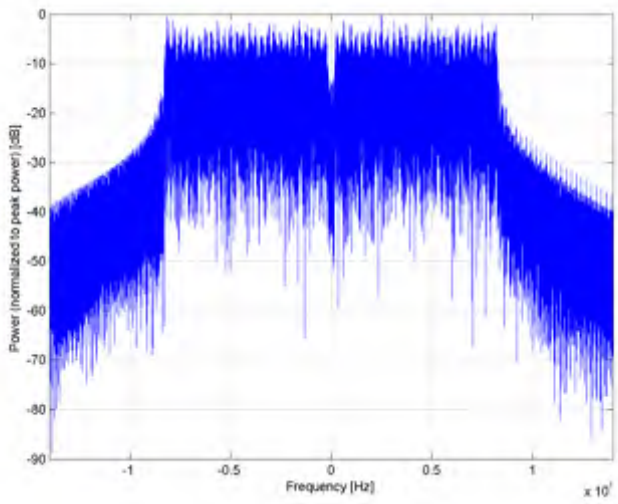
Name:	**IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)**
Group:	WLAN
UID:	10417-AAB
PAR: [1]	**8.23 dB**
MIF: [2]	**-18.74 dB**
Standard Reference:	IEEE 802.11-2012 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 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

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

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

Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

Time Domain

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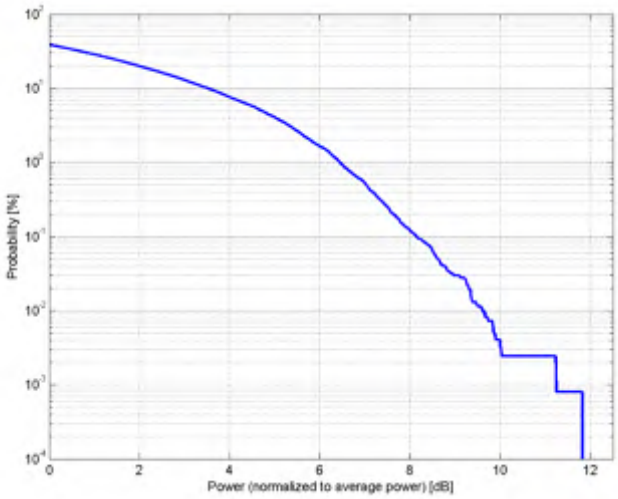
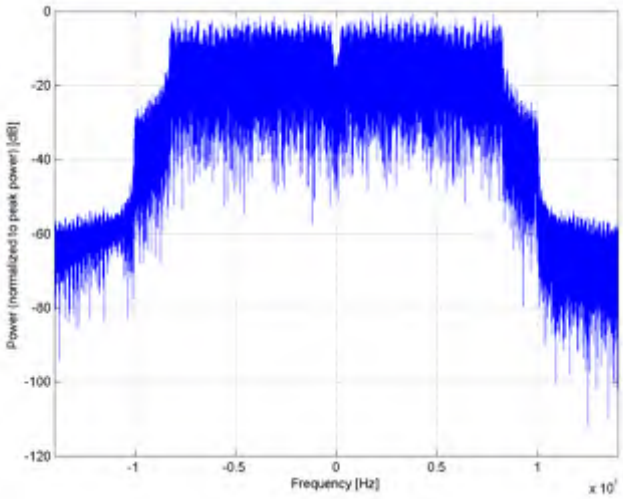
Name:	**IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)**
Group:	WLAN
UID:	10418-AAA
PAR: [1]	**8.14 dB**
MIF: [2]	**-17.11 dB**
Standard Reference:	IEEE 802.11-2012 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	BPSK
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

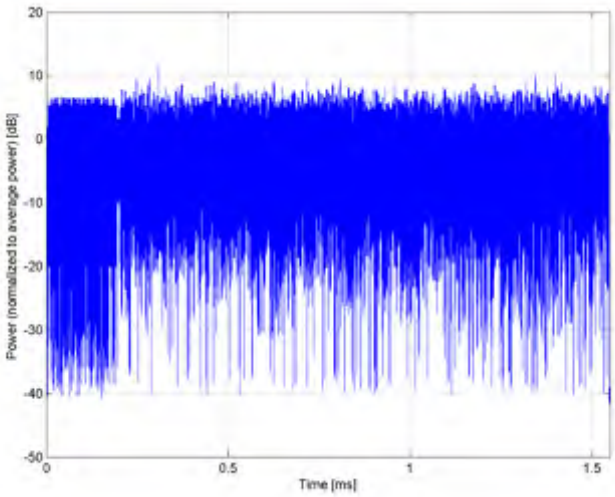
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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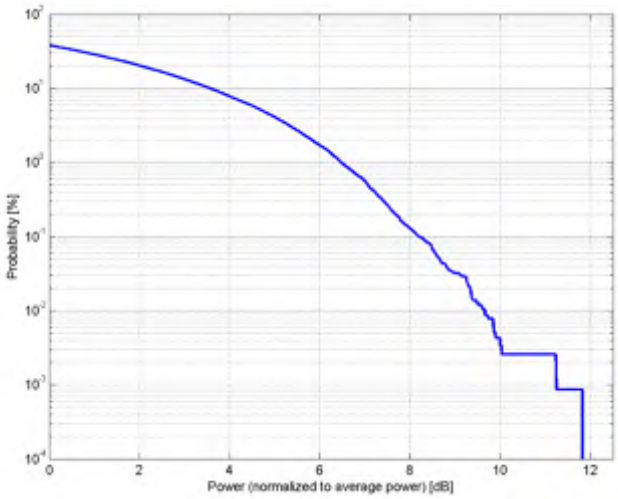
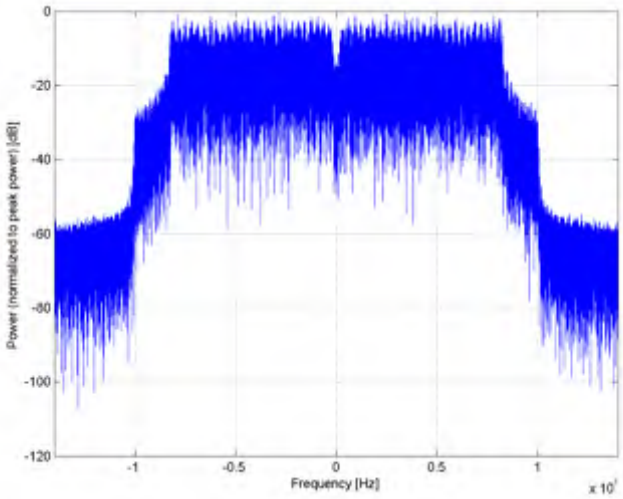
Name:	**IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)**
Group:	WLAN
UID:	10419-AAA
PAR: [1]	**8.19 dB**
MIF: [2]	**-18.31 dB**
Standard Reference:	IEEE 802.11-2012 FCC SAR meas for 802 11 a b g v01r02 (248227 D01)
Category:	Random amplitude modulation
Modulation:	BPSK
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

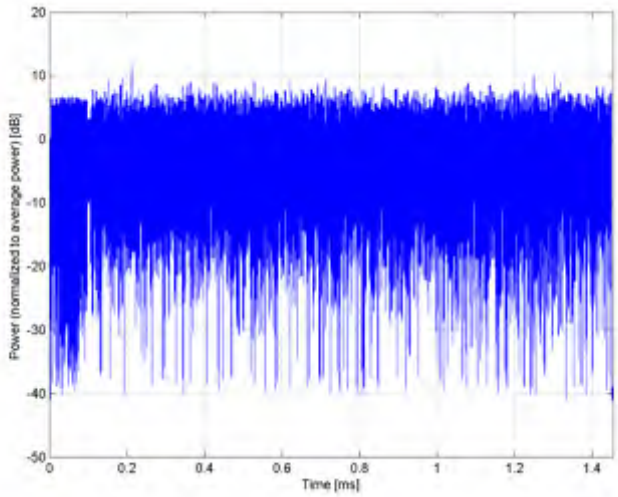
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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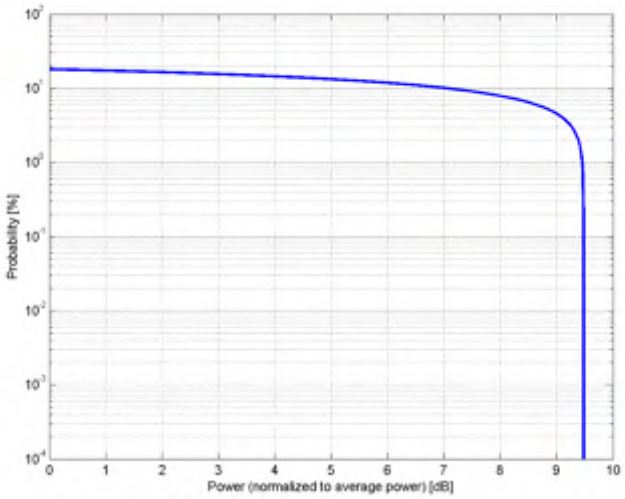
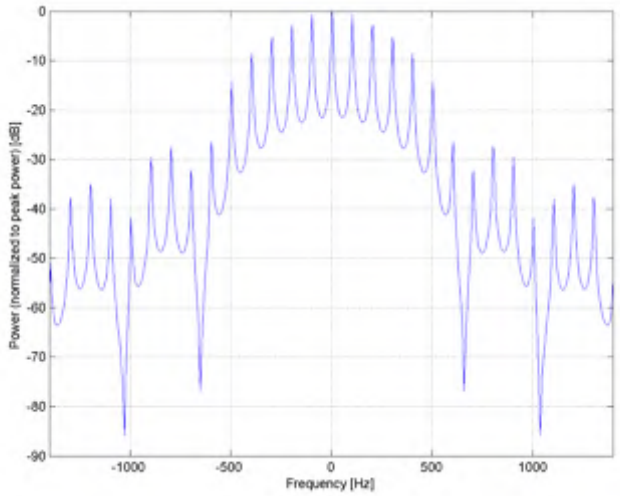
Name:	**FSE MRI sequence (pi Sinc, 10ms, 2.5 ms)**
Group:	MRI
UID:	10421-AAC
PAR: [1]	**9.48 dB**
MIF: [2]	**1.87 dB**
Standard Reference:	SPEAG
Category:	Periodic pulsed modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
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

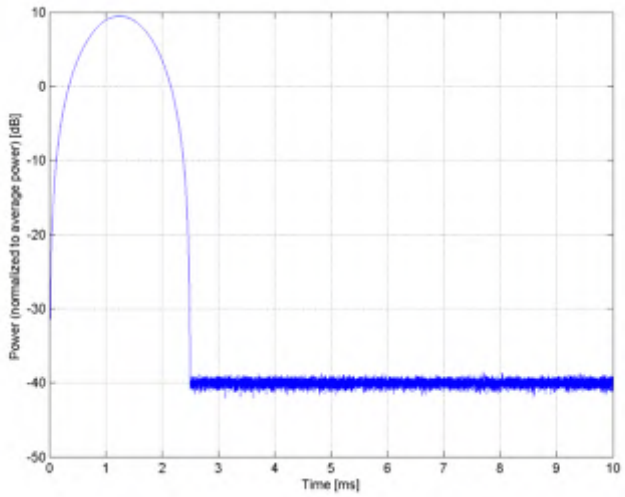
1 PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)"'
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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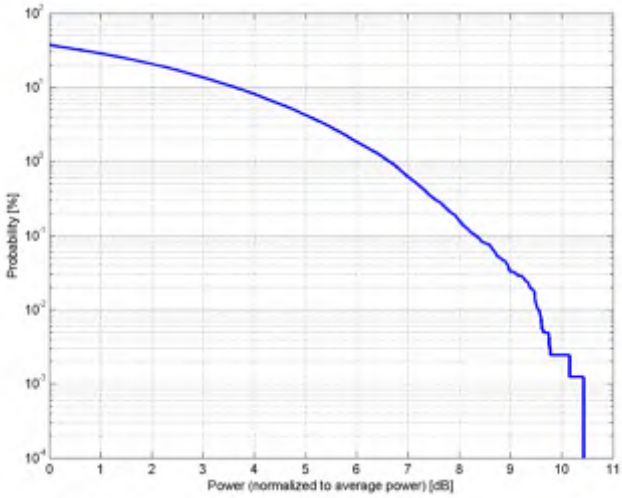
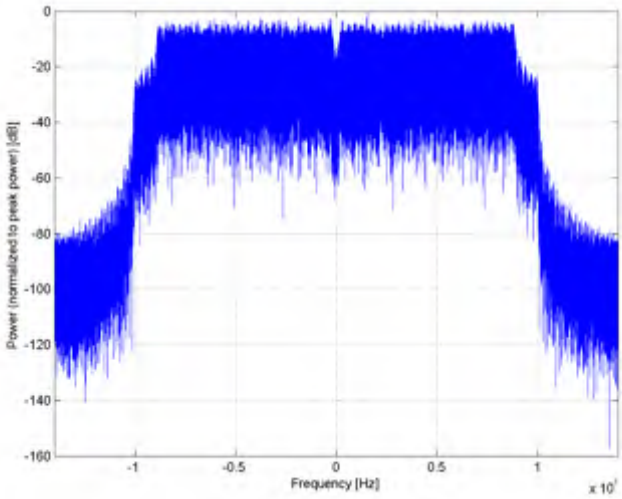
Name:	**IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)**
Group:	WLAN
UID:	10422-AAB
PAR: [1]	**8.32 dB**
MIF: [2]	**-14.20 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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

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

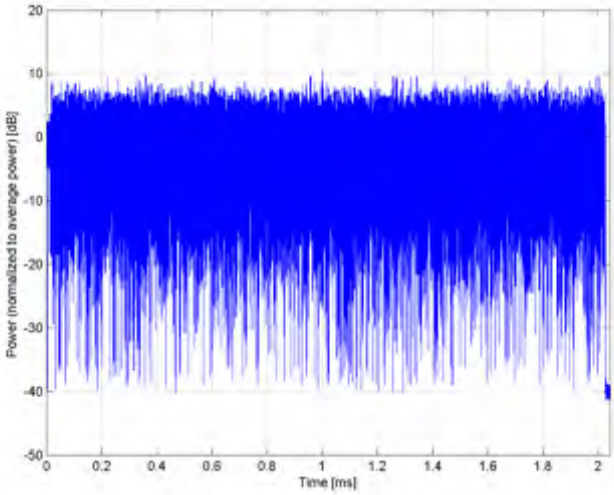
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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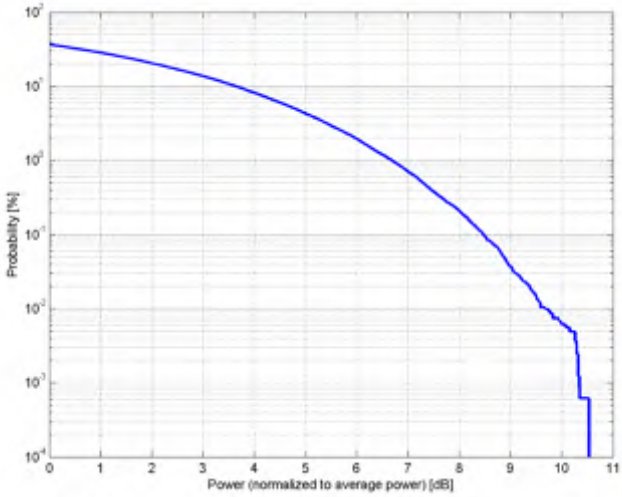
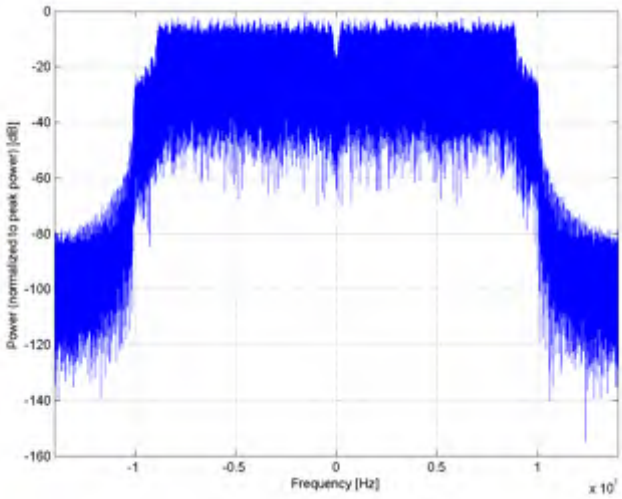
Name:	**IEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)**
Group:	WLAN
UID:	10423-AAB
PAR: [1]	**8.47 dB**
MIF: [2]	**-13.60 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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

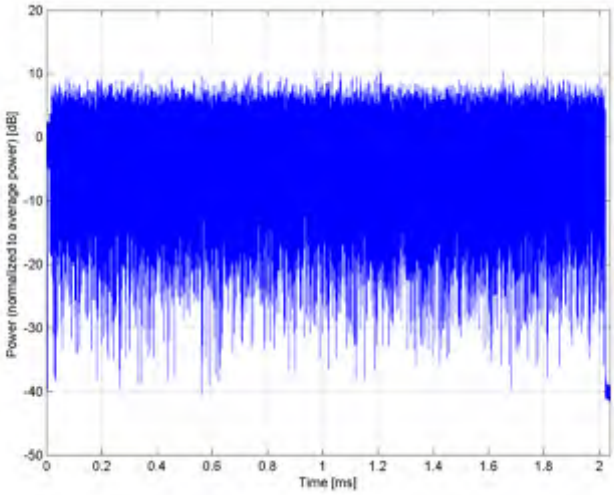
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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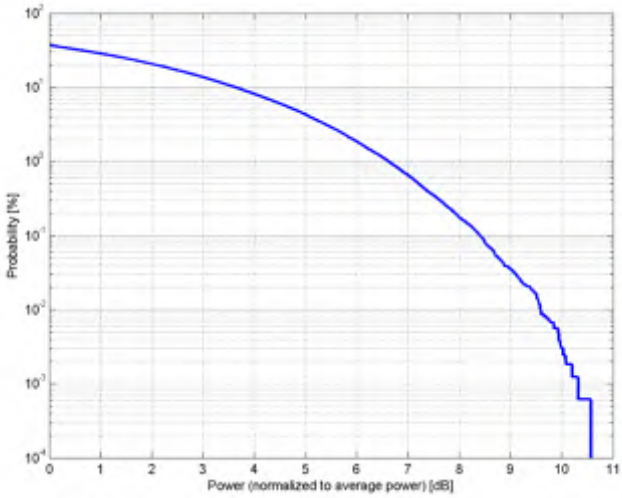
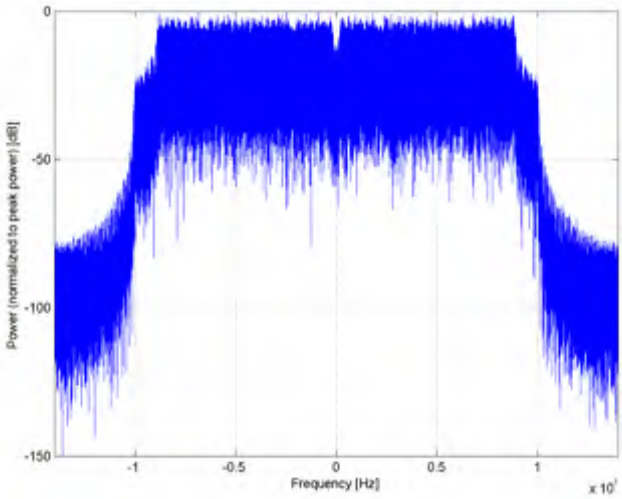
Name:	**IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)**
Group:	WLAN
UID:	10424-AAB
PAR: [1]	**8.40 dB**
MIF: [2]	**-13.84 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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

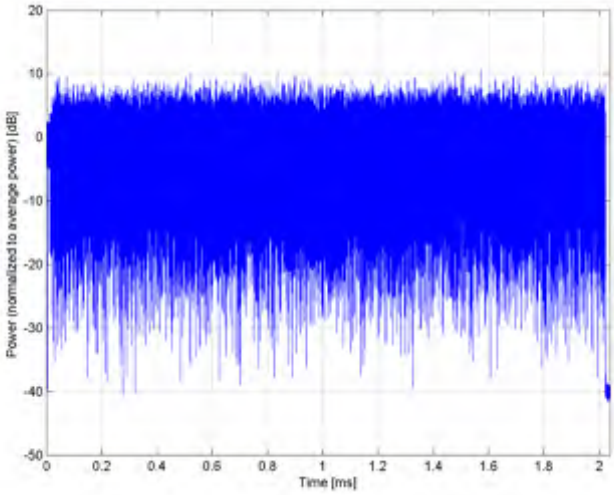
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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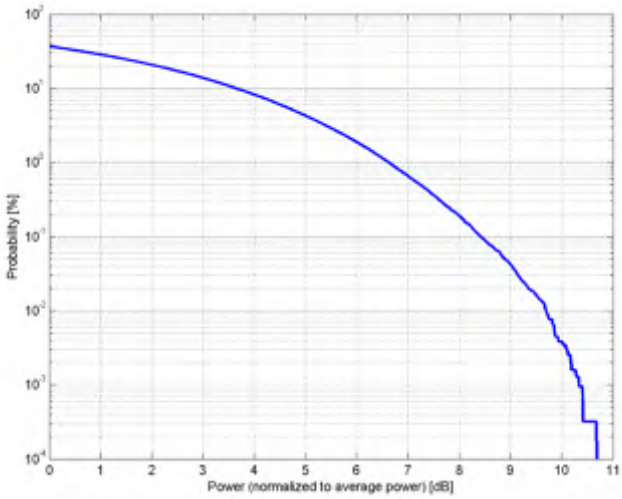
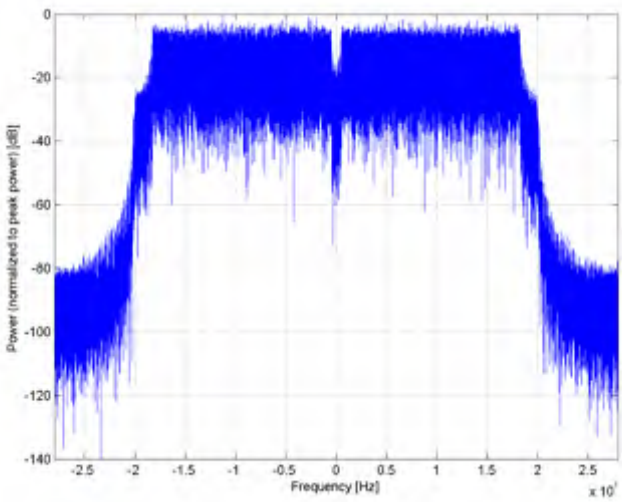
Name:	**IEEE 802.11n (HT Greenfield, 15 Mbps, BPSK)**
Group:	WLAN
UID:	10425-AAB
PAR: [1]	**8.41 dB**
MIF: [2]	**-13.52 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) U-NII-1, 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

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

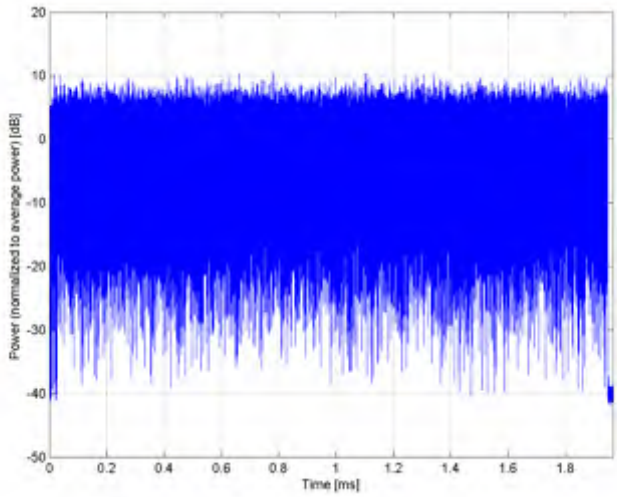
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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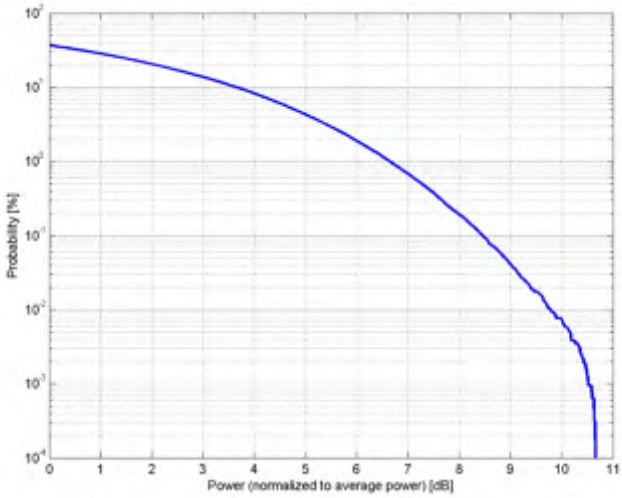
Zeughausstrasse 43, 8004 Zurich, Switzerland

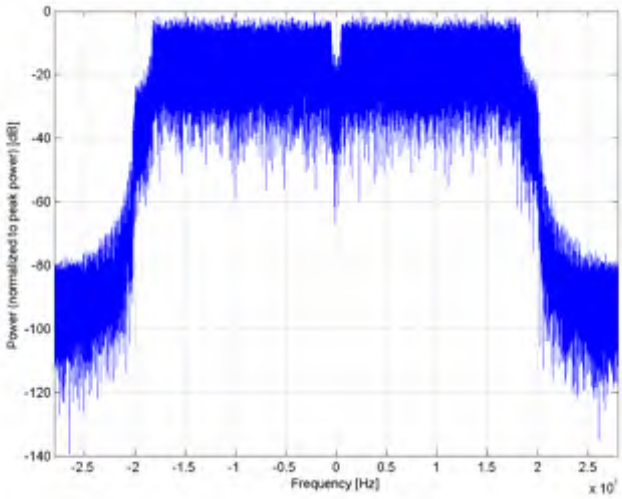
Name:	**IEEE 802.11n (HT Greenfield, 90 Mbps, 16-QAM)**
Group:	WLAN
UID:	10426-AAB
PAR: [1]	**8.45 dB**
MIF: [2]	**-13.71 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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

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

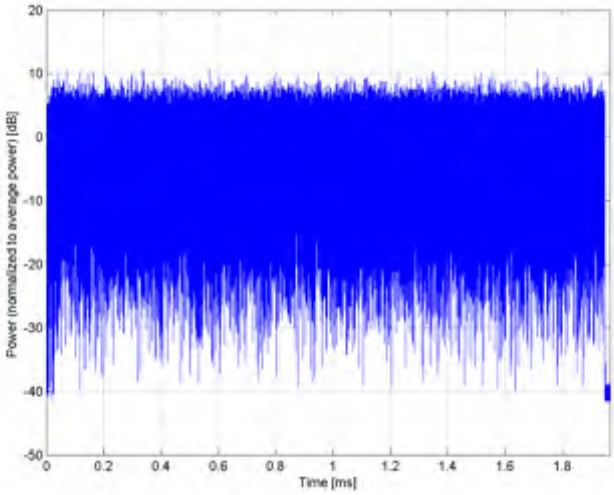
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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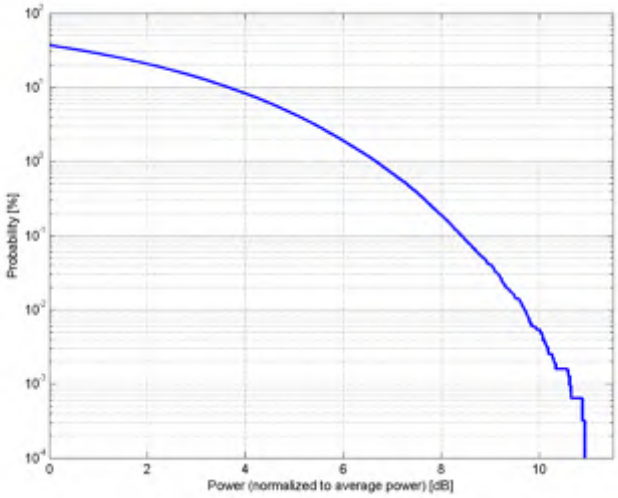
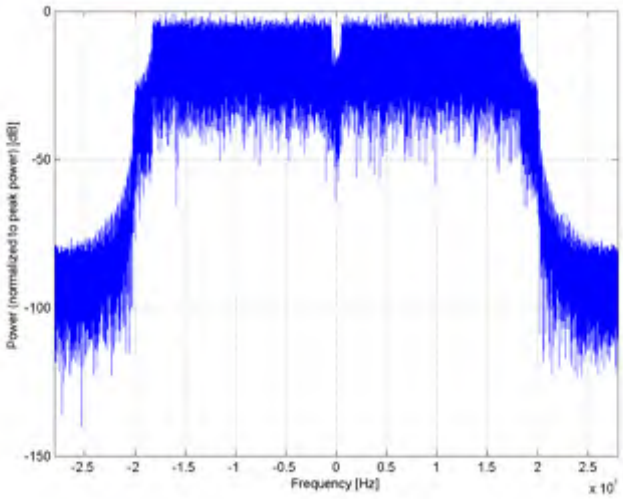
Name:	**IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)**
Group:	WLAN
UID:	10427-AAB
PAR: [1]	**8.41 dB**
MIF: [2]	**-13.44 dB**
Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	WLAN 2.4GHz (2412.0 - 2484.0 MHz) WLAN 5GHz (4915.0 - 5825.0 MHz) 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

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

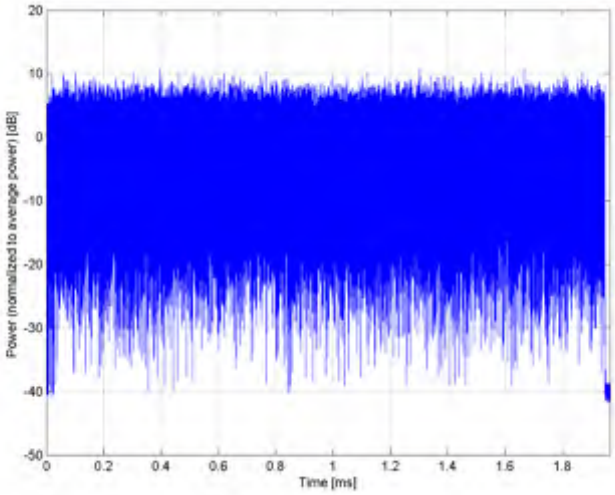
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

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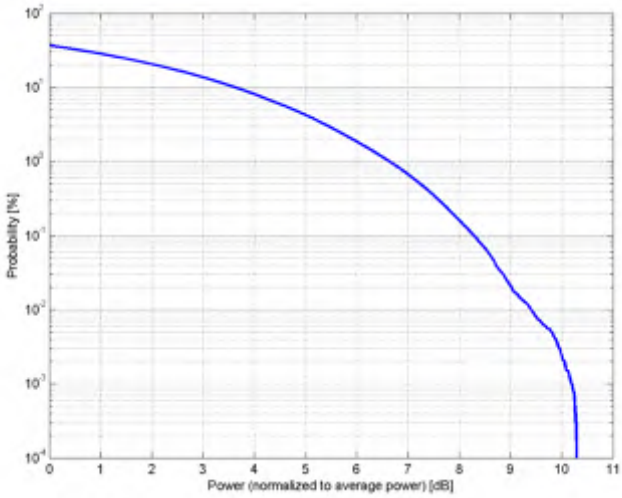
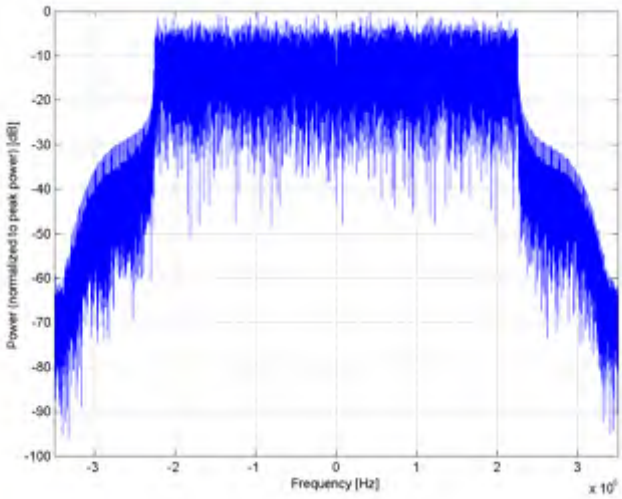
Name:	**LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)**
Group:	LTE-FDD
UID:	10430-AAB
PAR: [1]	**8.28 dB**
MIF: [2]	**-16.24 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 5MHz
Bandwidth:	5.0 MHz
Integration Time:	20.0 ms

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

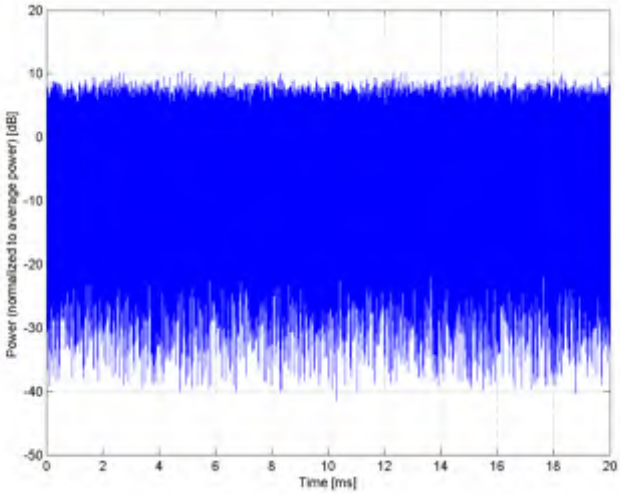
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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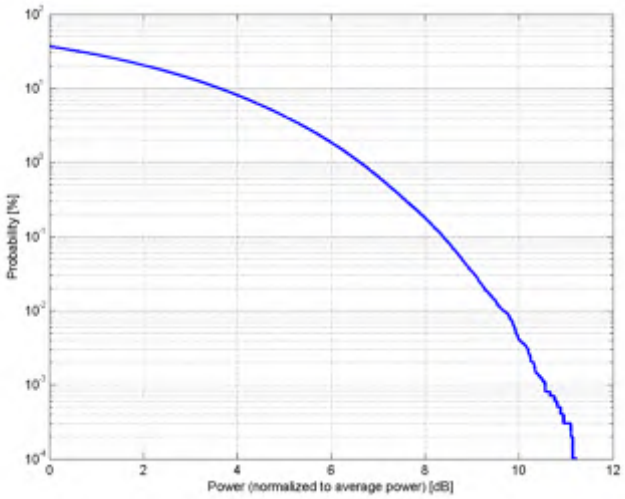
Zeughausstrasse 43, 8004 Zurich, Switzerland

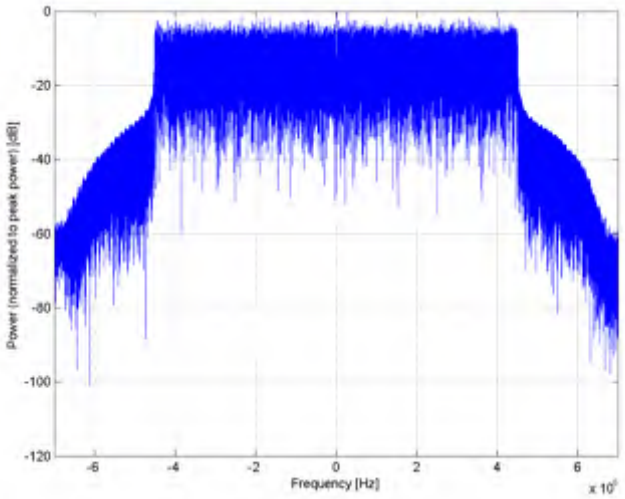
Name:	**LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)**
Group:	LTE-FDD
UID:	10431-AAB
PAR: [1]	**8.38 dB**
MIF: [2]	**-17.66 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 10MHz
Bandwidth:	10.0 MHz
Integration Time:	20.0 ms

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

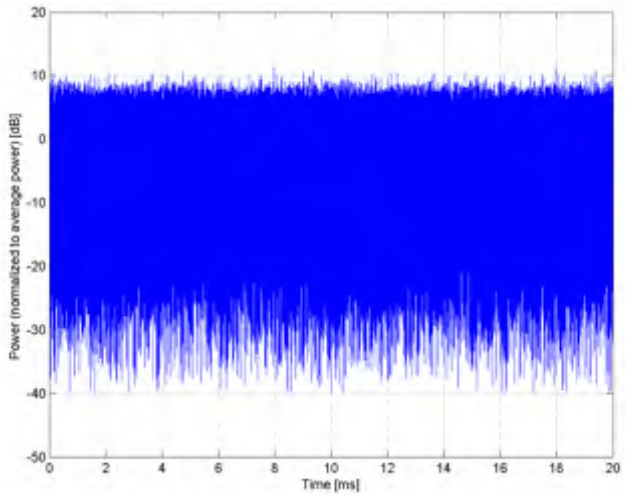
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain

Calibration Laboratory of
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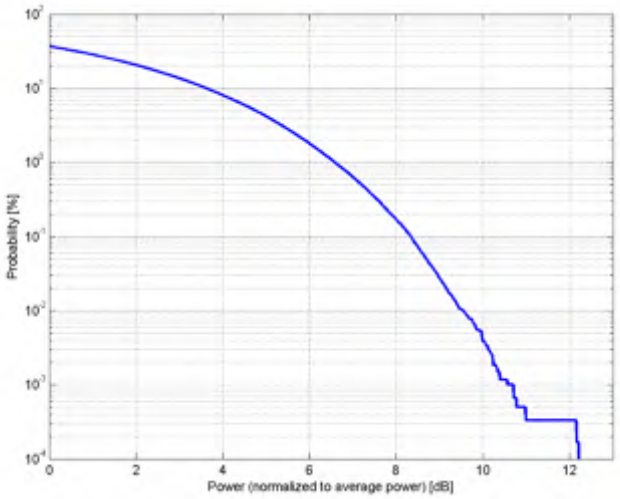
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

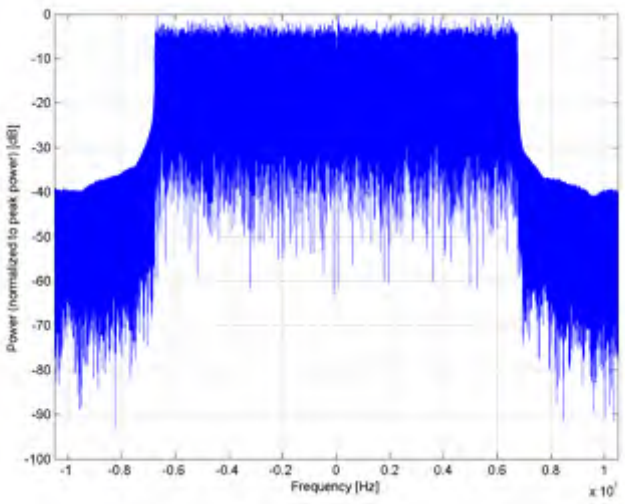
Name:	**LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)**
Group:	LTE-FDD
UID:	10432-AAB
PAR: [1]	**8.34 dB**
MIF: [2]	**-19.05 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 15MHz
Bandwidth:	15.0 MHz
Integration Time:	20.0 ms

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

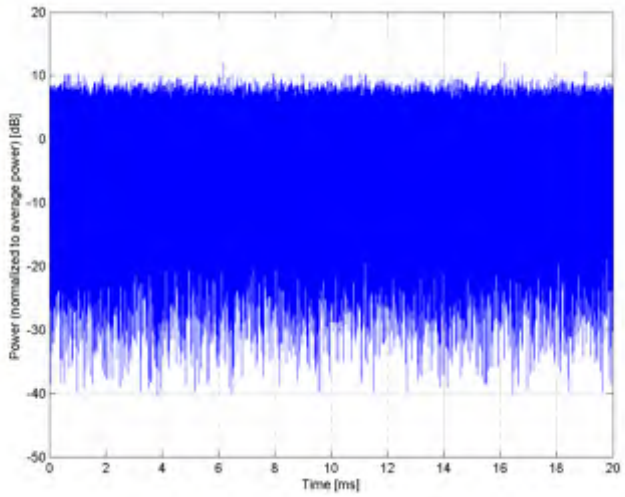
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



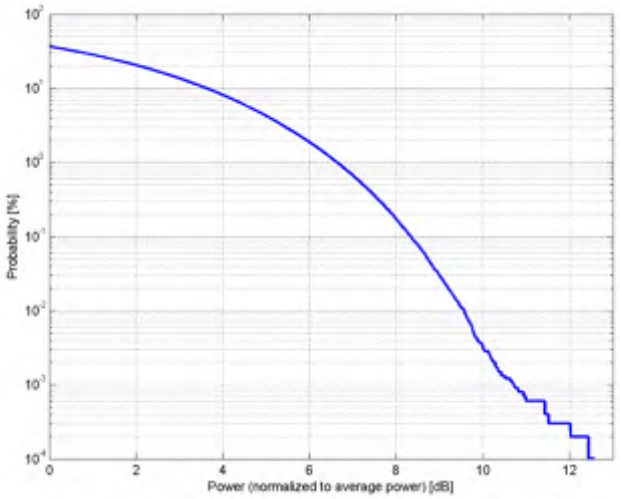
Time Domain

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

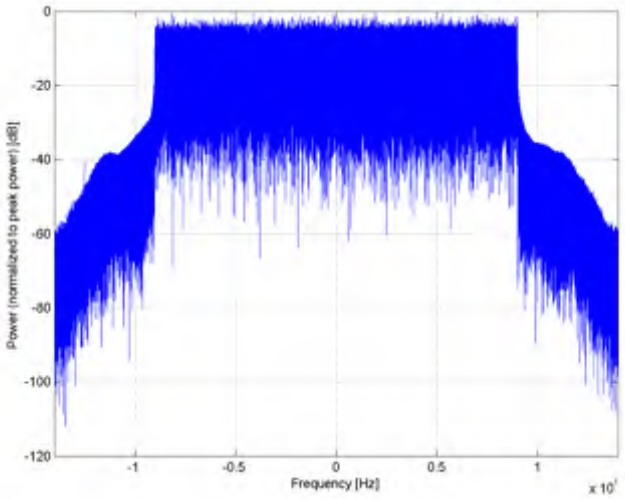
Name:	**LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)**
Group:	LTE-FDD
UID:	10433-AAB
PAR: [1]	**8.34 dB**
MIF: [2]	**-19.83 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, Downlink (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) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	E-UTRA Test Model 3.1 (E-TM3.1) Bandwidth: 20MHz
Bandwidth:	20.0 MHz
Integration Time:	20.0 ms

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

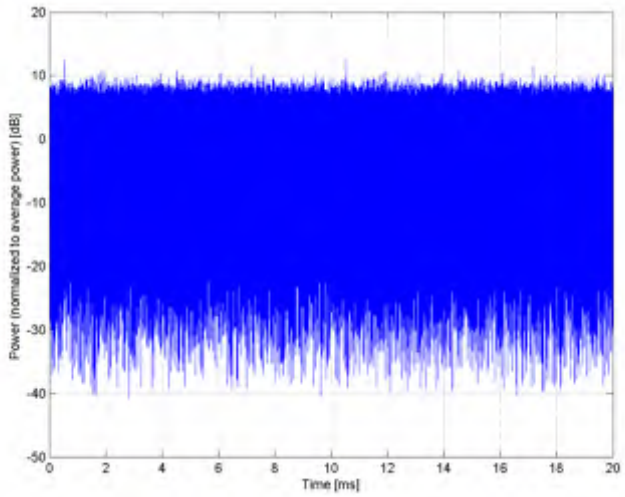
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

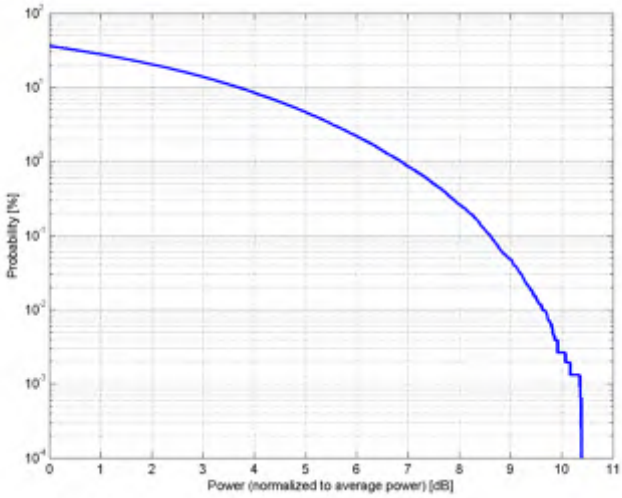


Time Domain

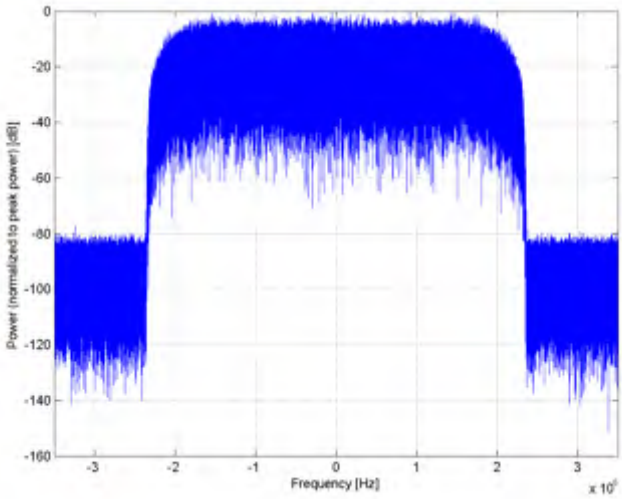
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**W-CDMA (BS Test Model 1, 64 DPCH)**
Group:	WCDMA
UID:	10434-AAA
PAR: [1]	**8.60 dB**
MIF: [2]	**-16.44 dB**
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
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

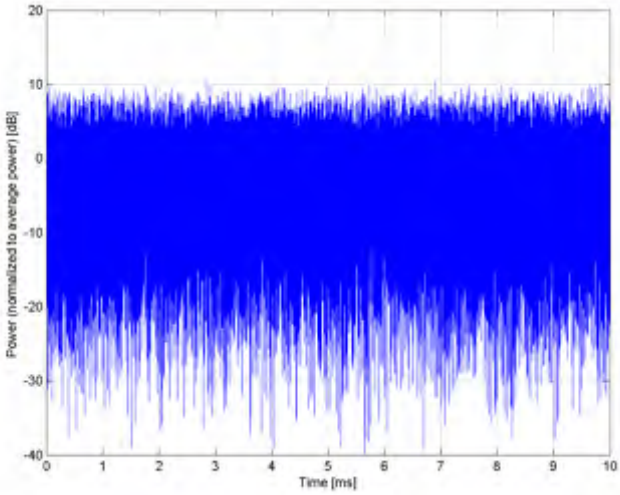
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



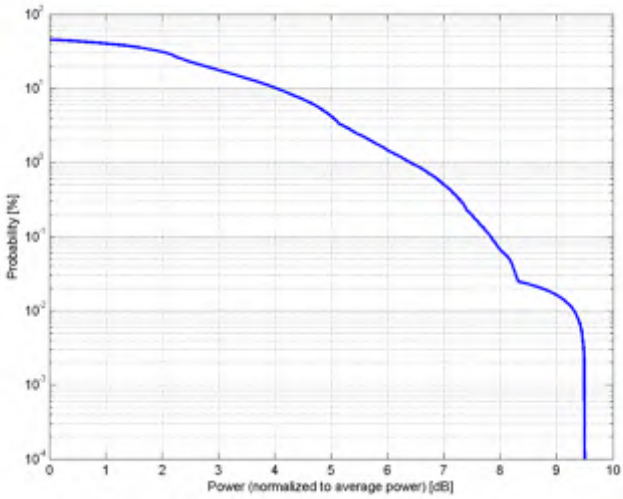
Time Domain

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

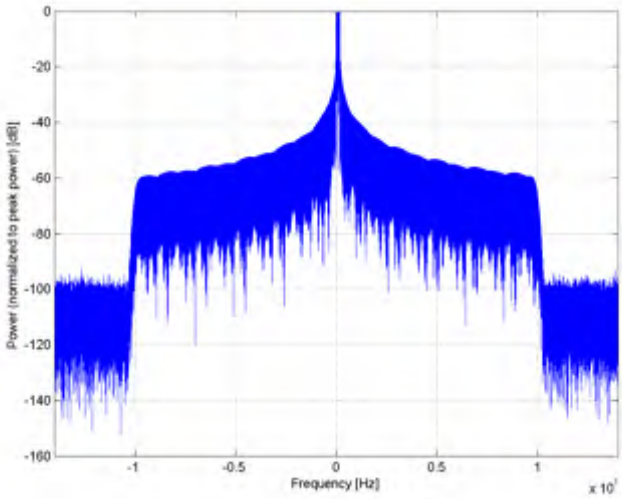
Name:	**LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)**
Group:	LTE-TDD
UID:	10435-AAC
PAR: [1]	**7.82 dB**
MIF: [2]	**-3.41 dB**
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0 3GPP / ETSI TS 136.213 V8.4.0 FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 33, E-UTRA/TDD (1900.0 - 1920.0 MHz) Band 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) 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

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

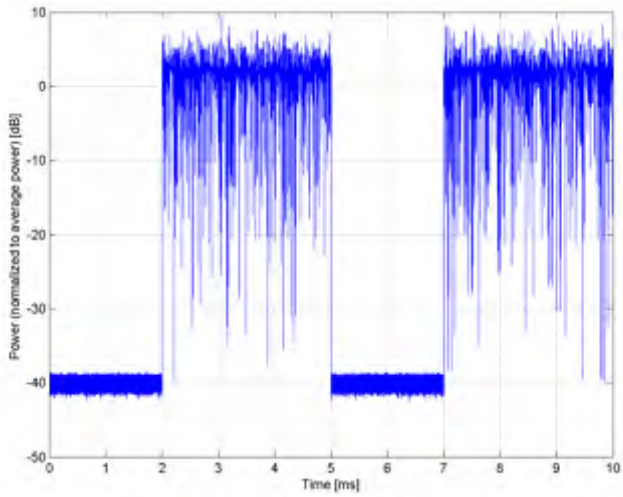
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



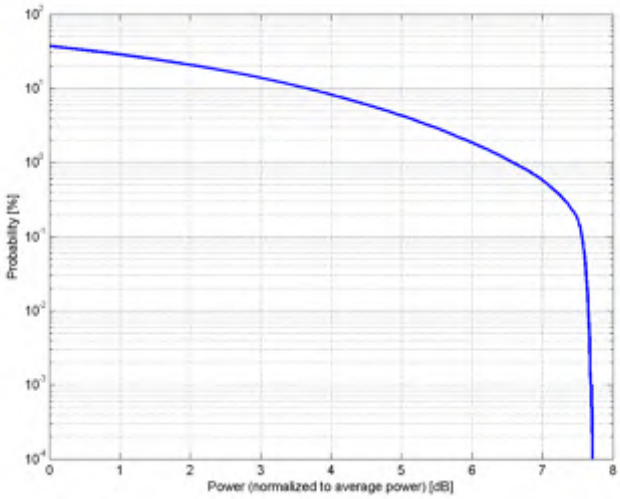
Time Domain

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

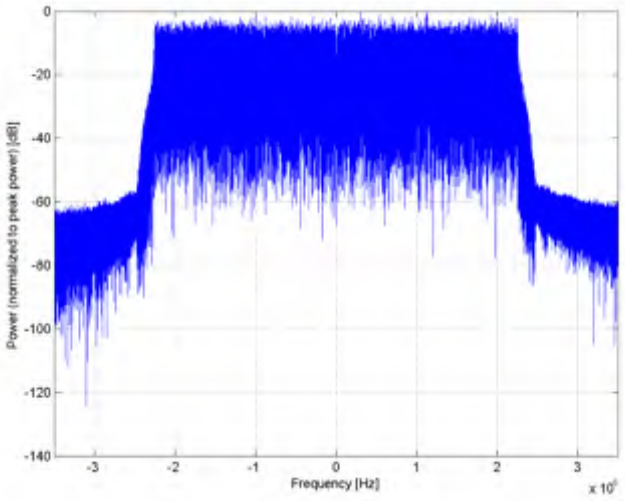
Name:	**LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)**
Group:	LTE-FDD
UID:	10447-AAB
PAR: [1]	**7.56 dB**
MIF: [2]	**-13.47 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, 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) 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

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

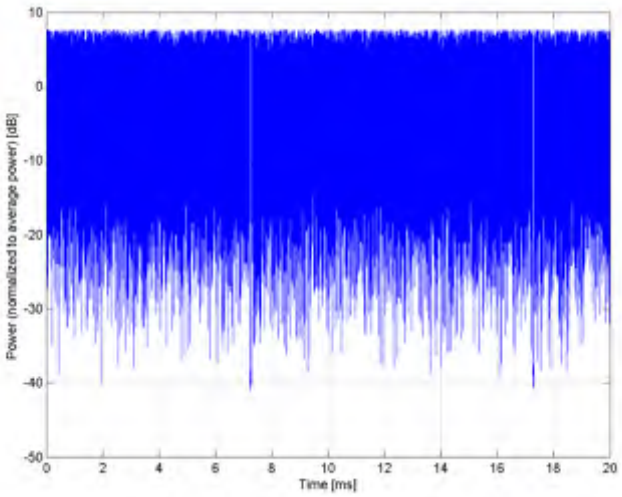
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



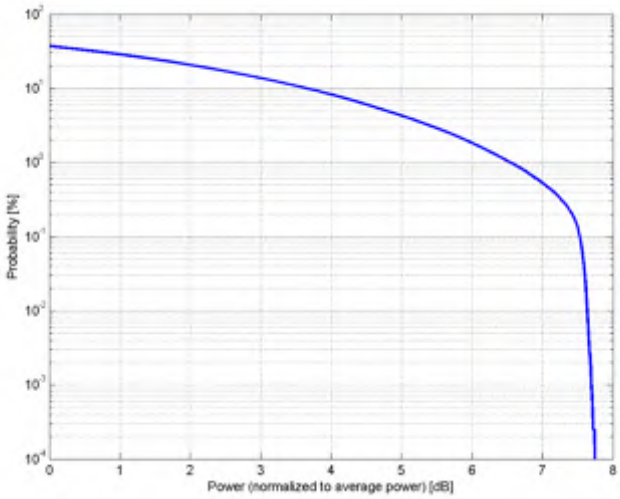
Time Domain

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

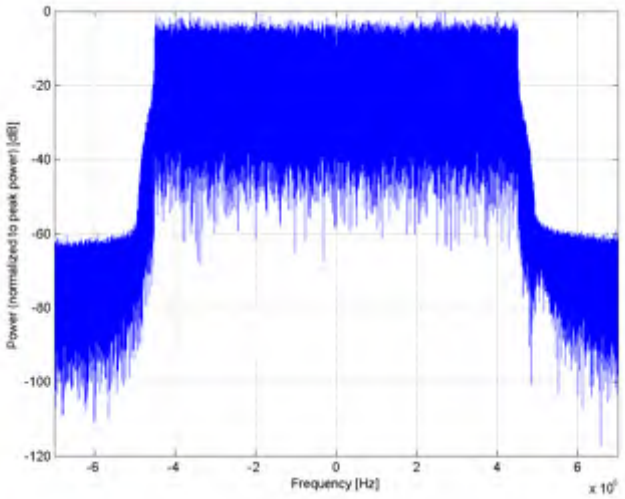
Name:	**LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)**
Group:	LTE-FDD
UID:	10448-AAB
PAR: [1]	**7.53 dB**
MIF: [2]	**-14.92 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, 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) 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

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

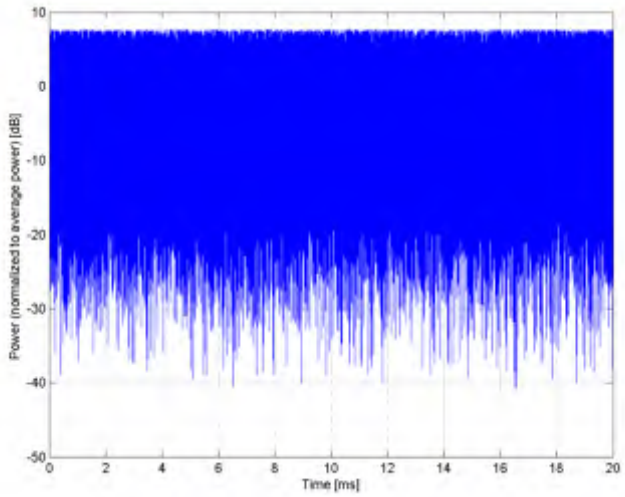
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



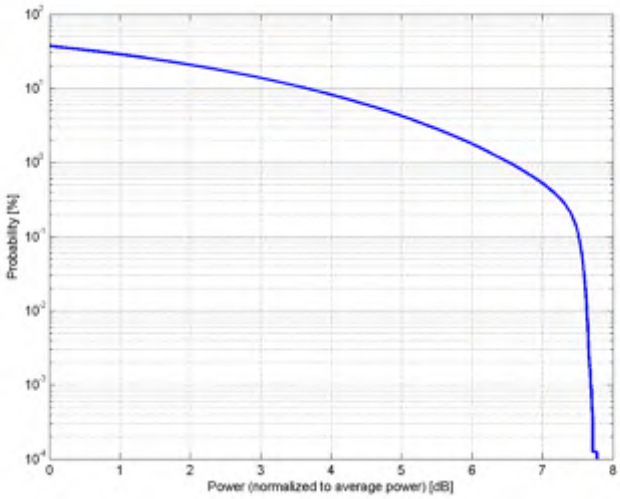
Time Domain

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

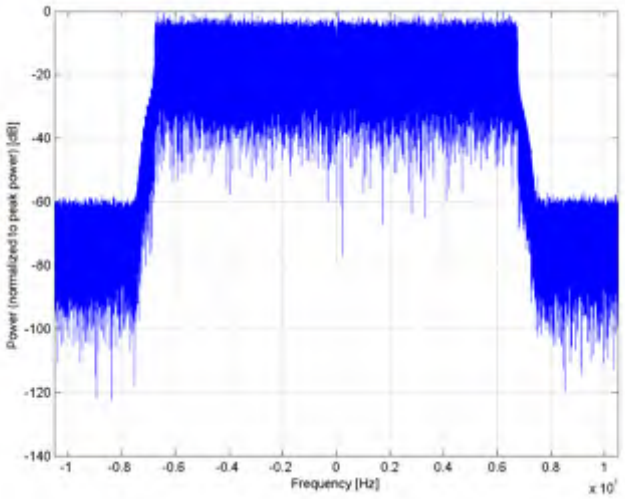
Name:	**LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)**
Group:	LTE-FDD
UID:	10449-AAB
PAR: [1]	**7.51 dB**
MIF: [2]	**-16.22 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, 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) 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

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

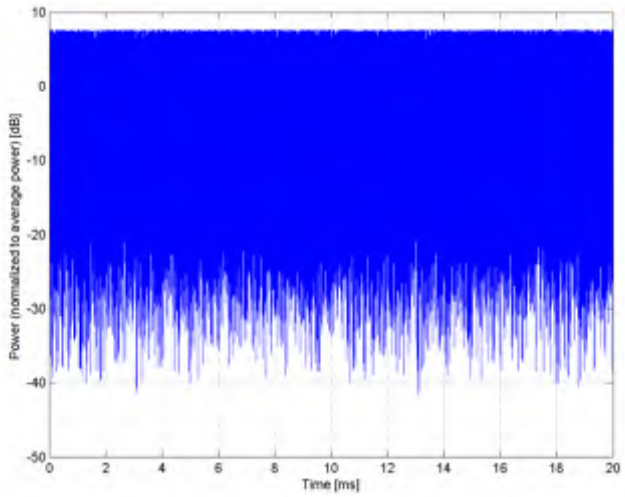
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



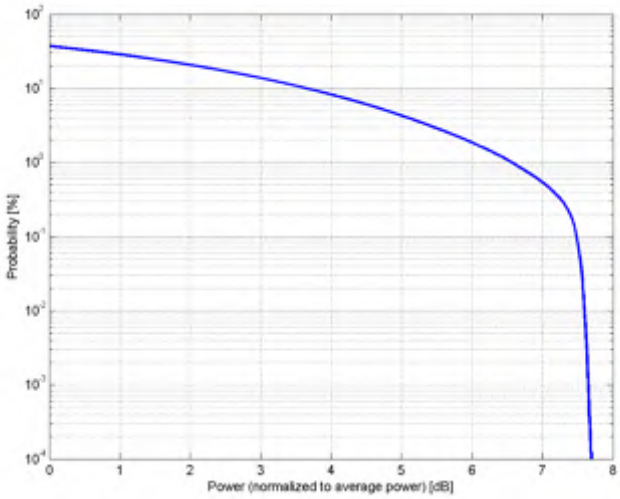
Time Domain

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

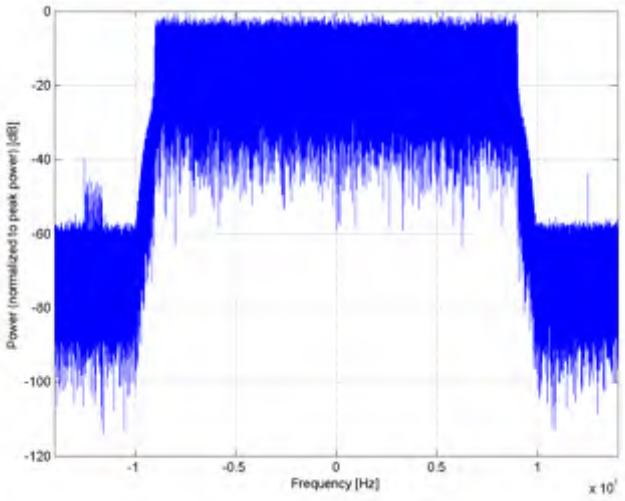
Name:	**LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)**
Group:	LTE-FDD
UID:	10450-AAB
PAR: [1]	**7.48 dB**
MIF: [2]	**-17.72 dB**
Standard Reference:	TS 36.141 V11.4
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD, Downlink (2110.0 - 2170.0 MHz) Band 2, E-UTRA/FDD, 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) 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

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

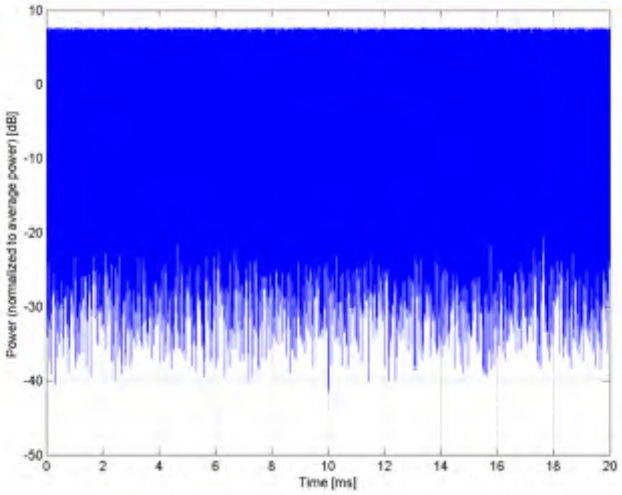
2 Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

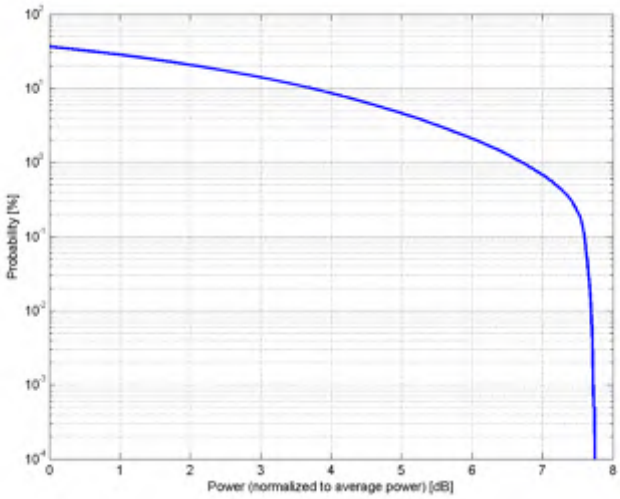


Time Domain

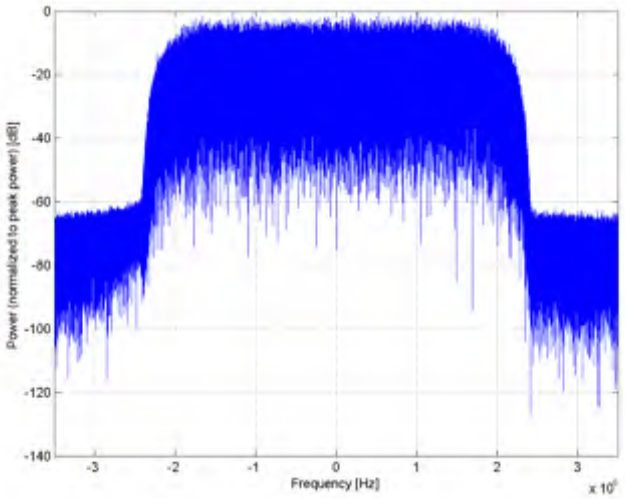
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44 %)**
Group:	WCDMA
UID:	10451-AAA
PAR: [1]	**7.59 dB**
MIF: [2]	**-12.93 dB**
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

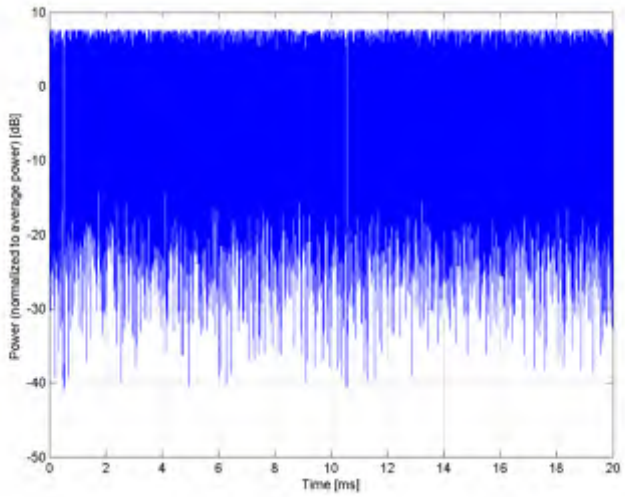
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



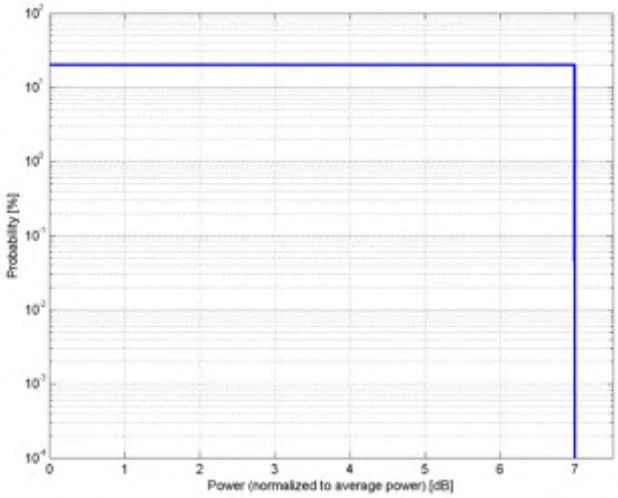
Time Domain

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

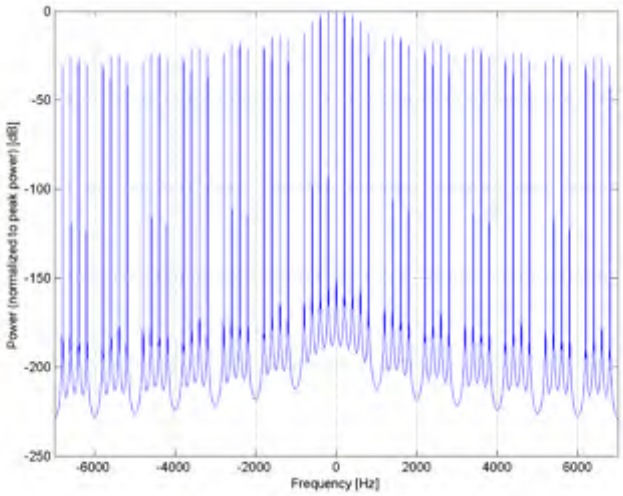
Name:	**MRI (Square, 5ms, 1ms)**
Group:	MRI
UID:	10452-AAC
PAR: [1]	**6.99 dB**
MIF: [2]	**1.54 dB**
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification: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

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

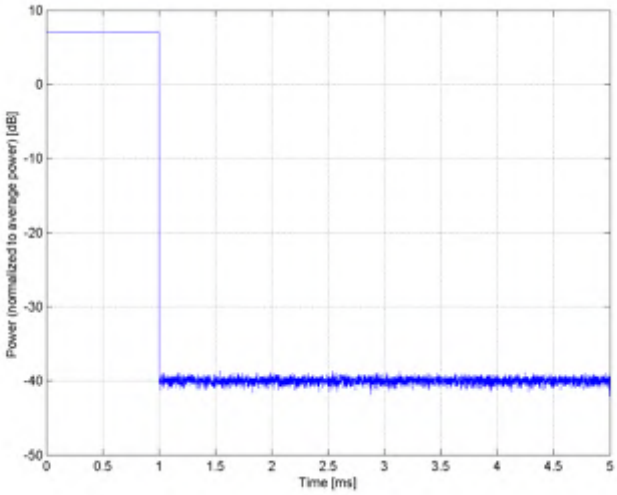
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



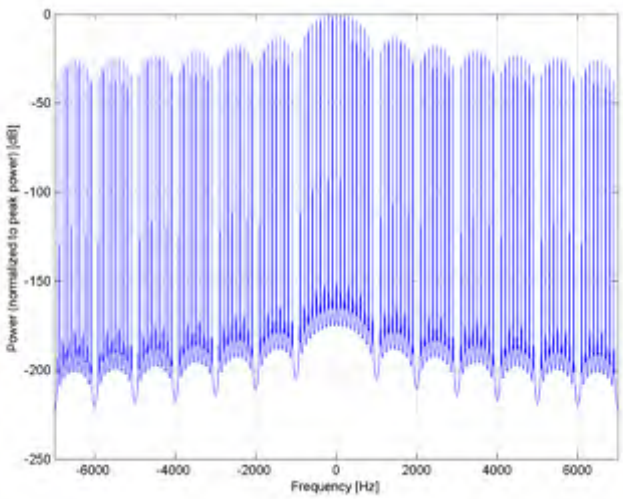
Time Domain

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

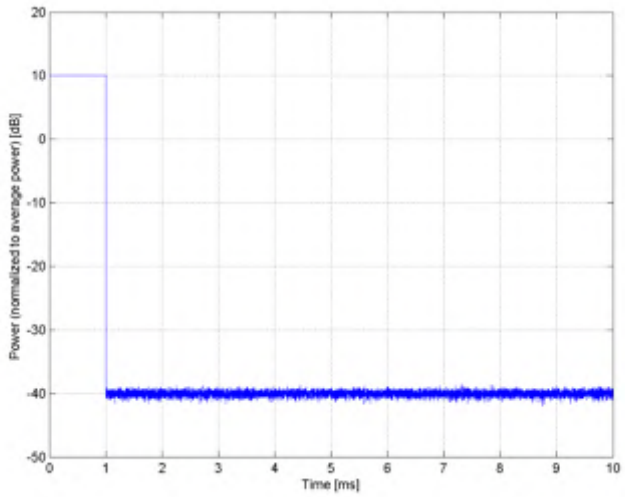
Name:	**MRI (Square, 10ms, 1ms)**
Group:	MRI
UID:	10453-AAC
PAR: [1]	**10.00 dB**
MIF: [2]	**3.94 dB**
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification:	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

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

Complementary Cumulative Distribution Function (CCDF)



Frequency Domain

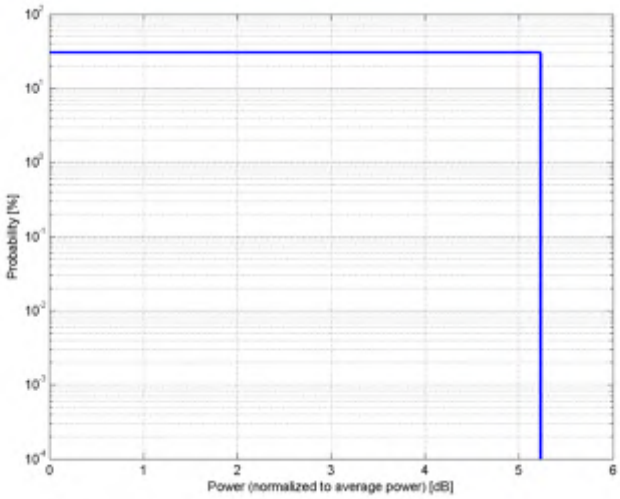


Time Domain

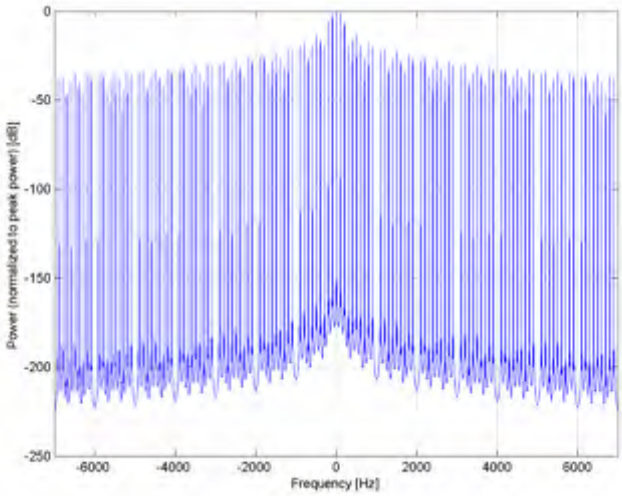
Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**MRI (Square, 10ms, 3ms)**
Group:	MRI
UID:	10454-AAC
PAR: [1]	**5.23 dB**
MIF: [2]	**-1.39 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: 30%
Bandwidth:	0.0 MHz
Integration Time:	10.0 ms

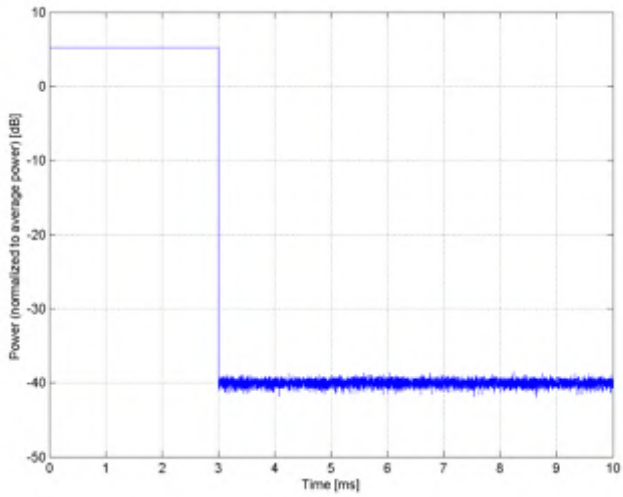
[1] PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "'Measurement of the Peak-to-Average Power Ratio (PAPR)'"
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



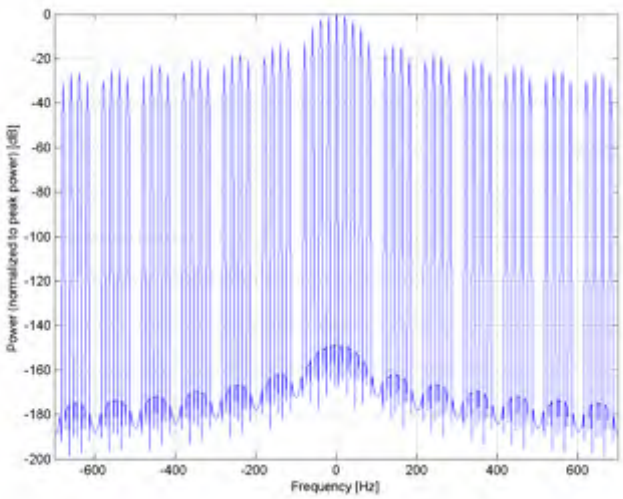
Time Domain

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

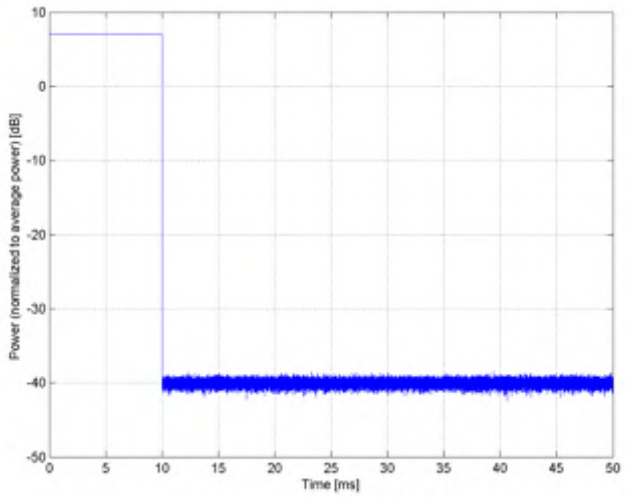
Name:	**MRI (Square, 50ms, 10ms)**
Group:	MRI
UID:	10455-AAC
PAR: [1]	**6.99 dB**
MIF: [2]	**-1.16 dB**
Standard Reference:	SPEAG
Category:	Random amplitude modulation
Modulation:	AM
Frequency Band:	MRI 1.5T (59.0 - 69.0 MHz) MRI 3T (123.0 - 133.0 MHz) Validation band (0.0 - 6000.0 MHz)
Detailed Specification: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

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

Complementary Cumulative Distribution Function (CCDF)



Frequency Domain



Time Domain