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

Name:	**LTE-FDD (SC-FDMA, 50 % RB, 1.4 MHz, QPSK)**

Group:	LTE-FDD
UID:	10166-CAB

PAR: [1]	**5.46 dB**
MIF: [2]	**-18.10 dB**

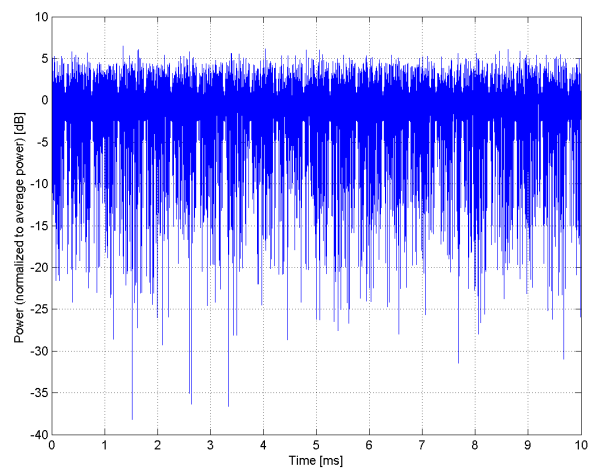|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
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: 3
	Transport Block Size: 224
	TBS Index: 5
	MCS Index: 5
	Data Type: PN9
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)
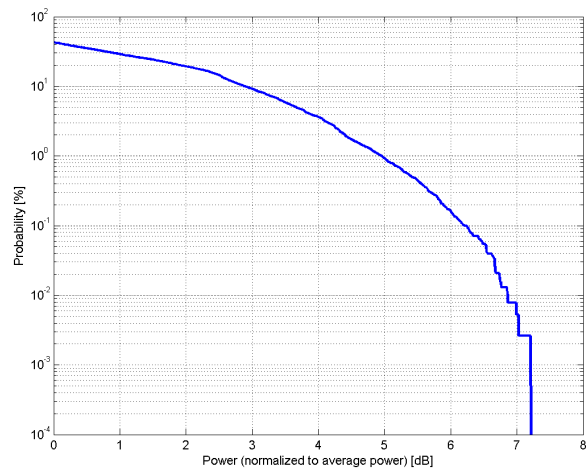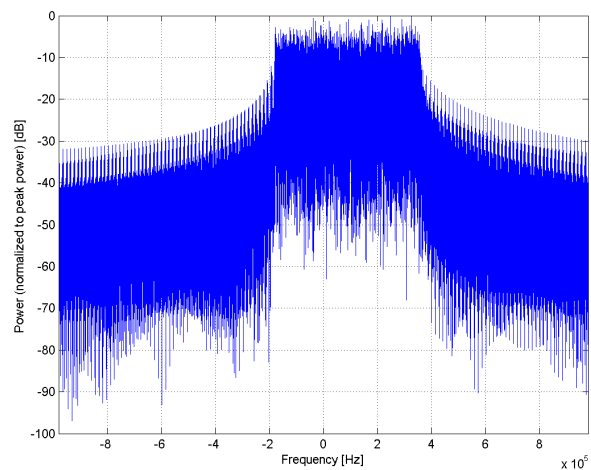

Frequency Domain

Time Domain

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

Name:	**LTE-FDD (SC-FDMA, 50 % RB, 1.4 MHz, 16-QAM)**

Group:	LTE-FDD
UID:	10167-CAB

PAR: [1]	**6.21 dB**
MIF: [2]	**-12.15 dB**

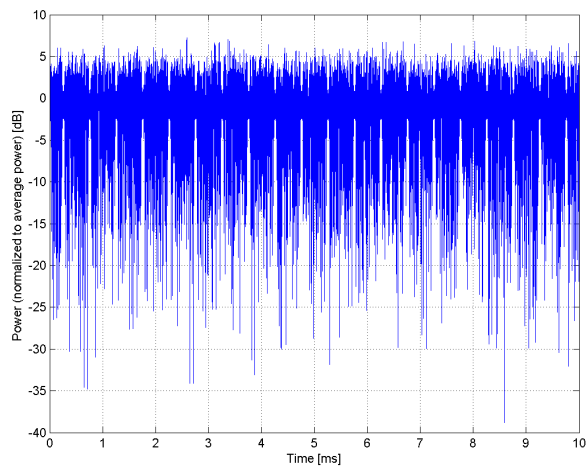|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
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: 3
	Transport Block Size: 840
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

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

Complementary Cumulative Distribution Function (CCDF)
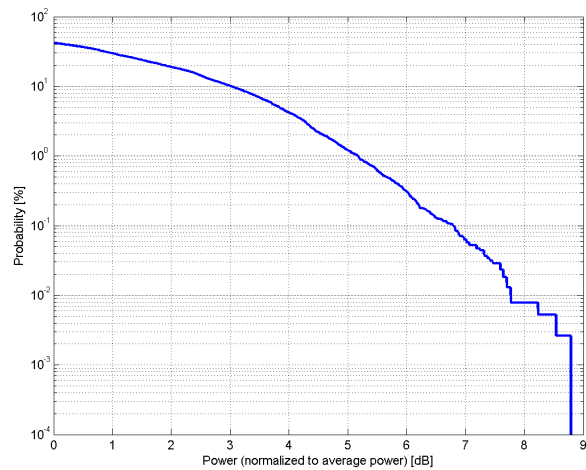

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland
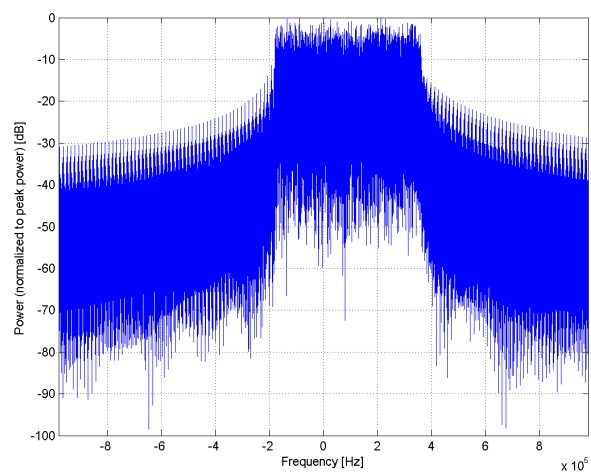
Name:	**LTE-FDD (SC-FDMA, 50 % RB, 1.4 MHz, 64-QAM)**

Group:	LTE-FDD
UID:	10168-CAB

PAR: [1]	**6.79 dB**
MIF: [2]	**-12.10 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, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
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: 3
	Transport Block Size: 1736
	TBS Index: 23
	MCS Index: 25
	Data Type: PN9
Bandwidth:	1.4 MHz
Integration Time:	10.0 ms

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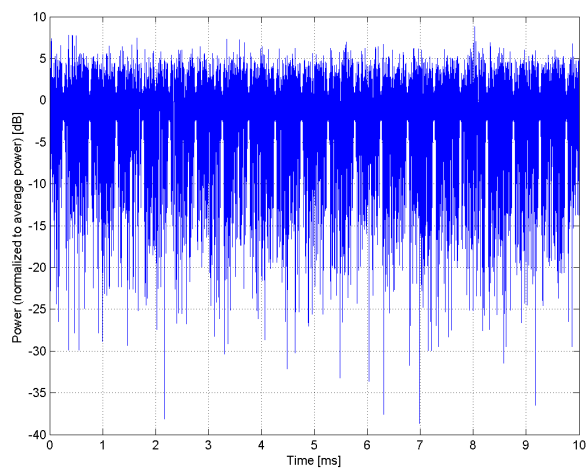[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
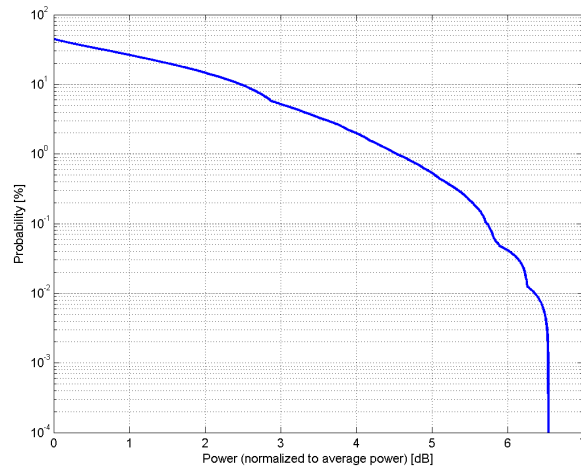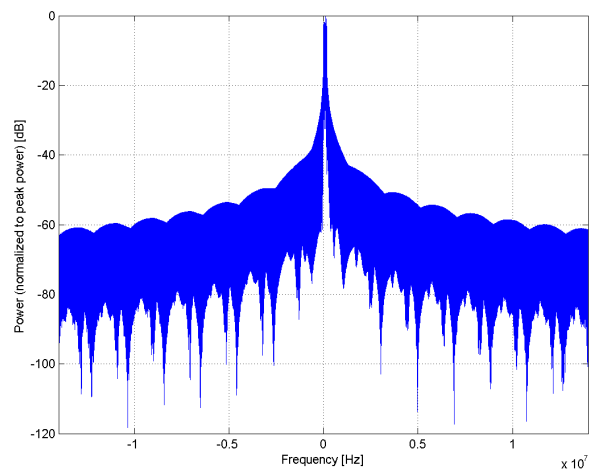

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)**

Group:	LTE-FDD
UID:	10169-CAB

PAR: [1]	**5.73 dB**
MIF: [2]	**-15.63 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, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 72
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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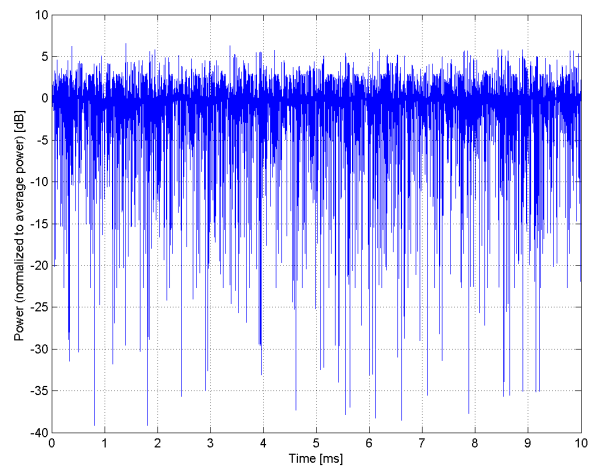[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

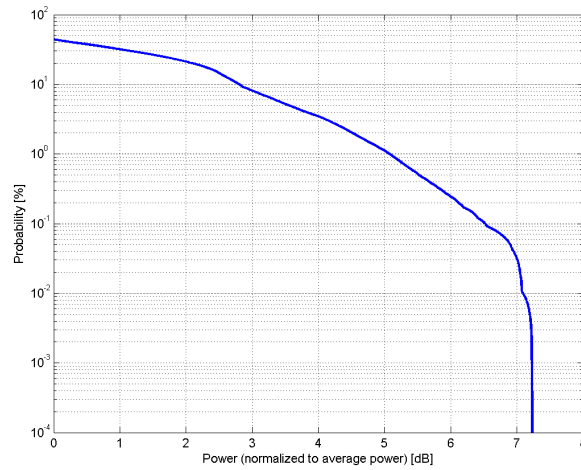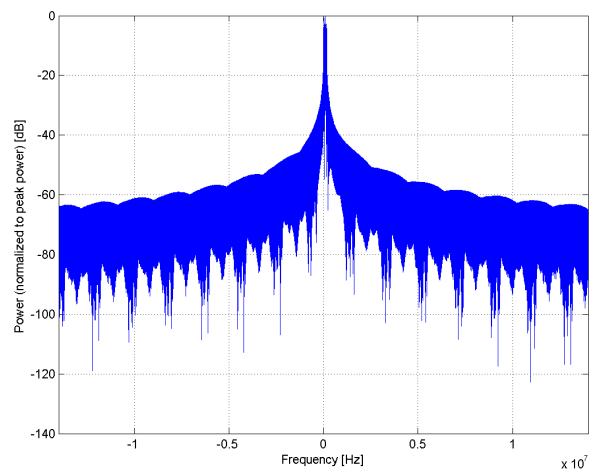**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

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

Name:	**LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)**

Group:	LTE-FDD
UID:	10170-CAB

PAR: [1]	**6.52 dB**
MIF: [2]	**-9.76 dB**

Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe # 0 to # 9:
	Modulation Scheme: 16QAM
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 256
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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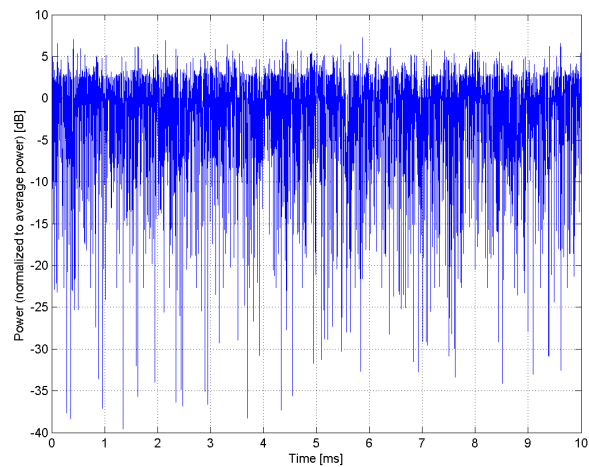[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

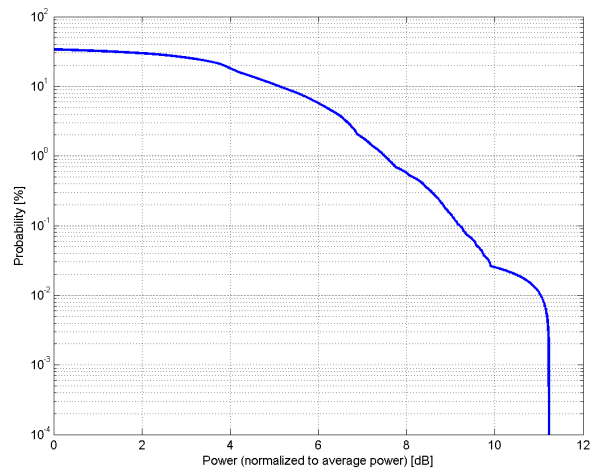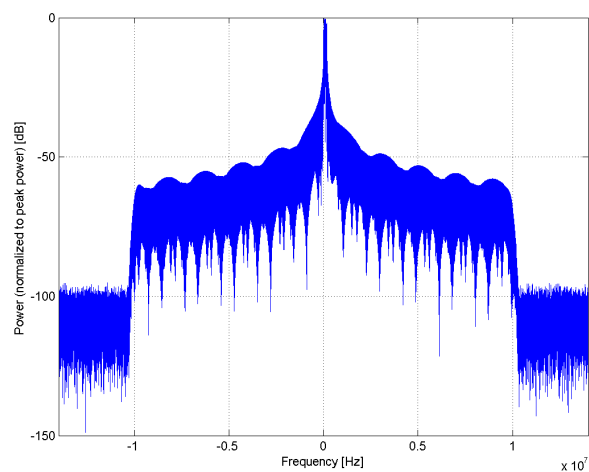**Complementary Cumulative Distribution Function (CCDF)**

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)**

Group:	LTE-TDD
UID:	10172-CAB

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, 20148)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 50
	Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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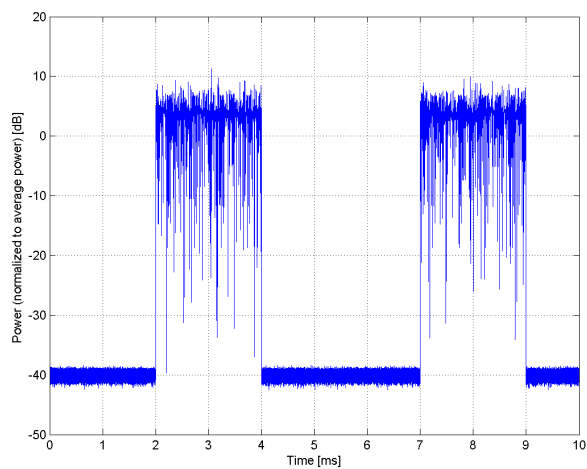[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

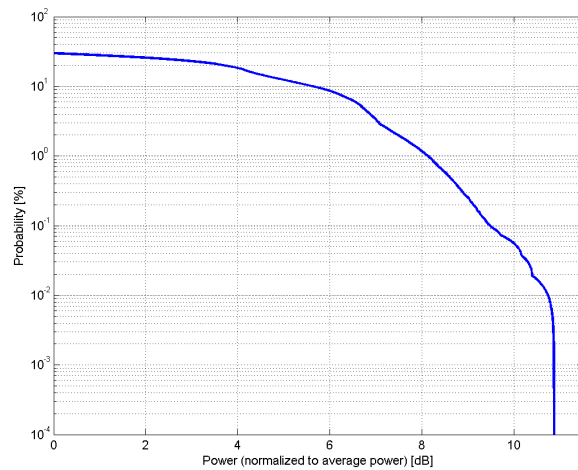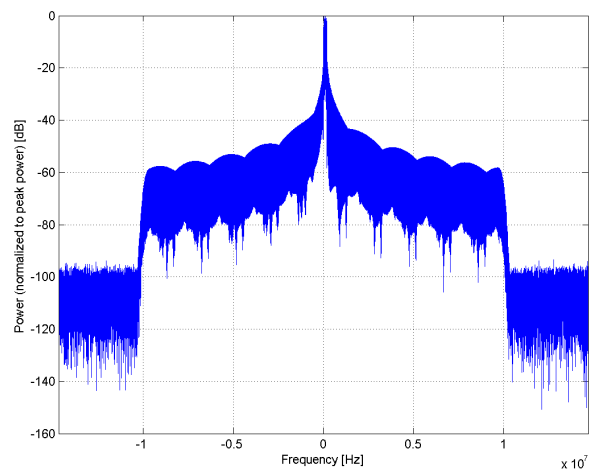**Complementary Cumulative Distribution Function (CCDF)**

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, 16-QAM)**

Group:	LTE-TDD
UID:	10173-CAB

PAR: [1]	**9.48 dB**
MIF: [2]	**-1.44 dB**

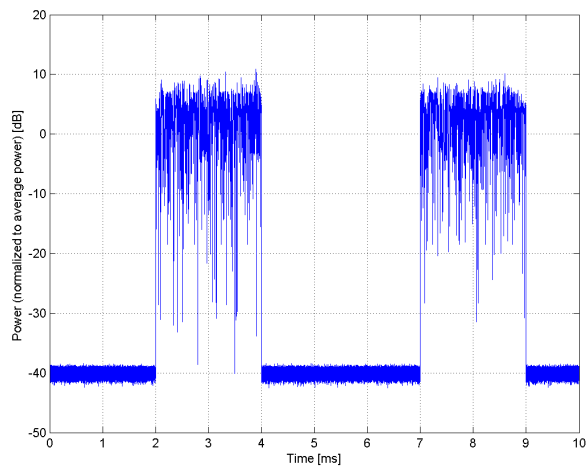|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v02
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 50
	Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	6.0 ms

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[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).
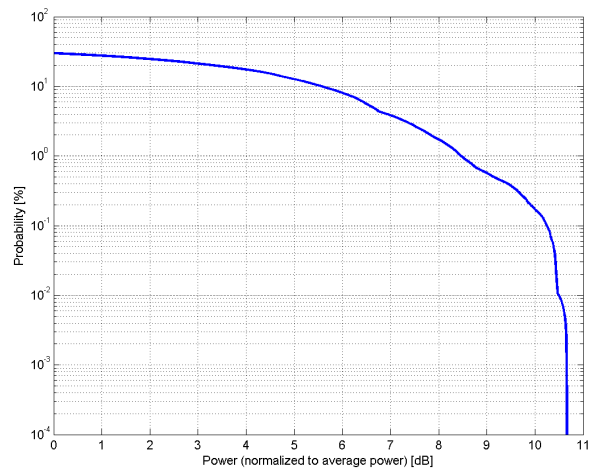

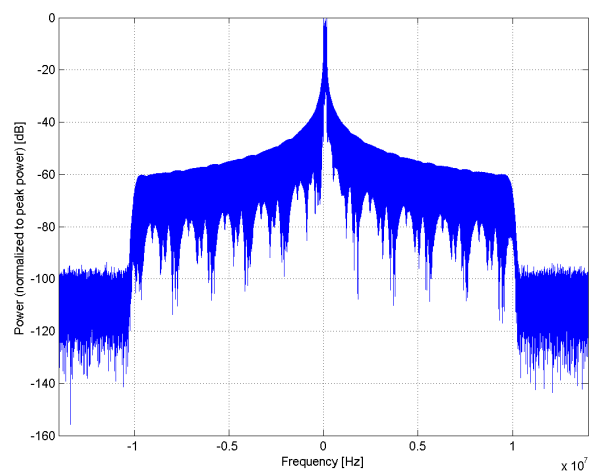**Complementary Cumulative Distribution Function (CCDF)**

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, 64-QAM)**

Group:	LTE-TDD
UID:	10174-CAB

PAR: [1]	**10.25 dB**
MIF: [2]	**-1.54 dB**

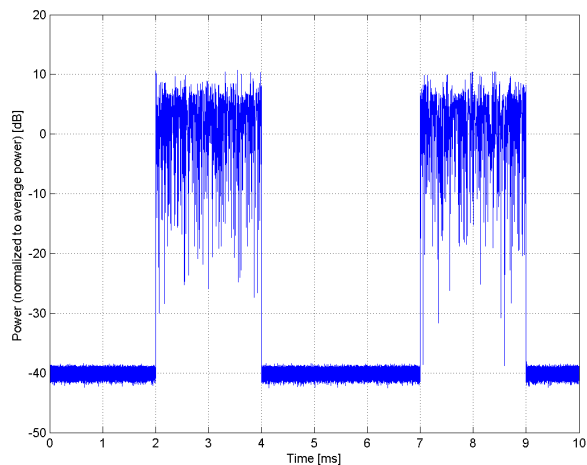|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 50
	Data Type: PN9fix
Bandwidth:	20.0 MHz
Integration Time:	10.0 ms

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

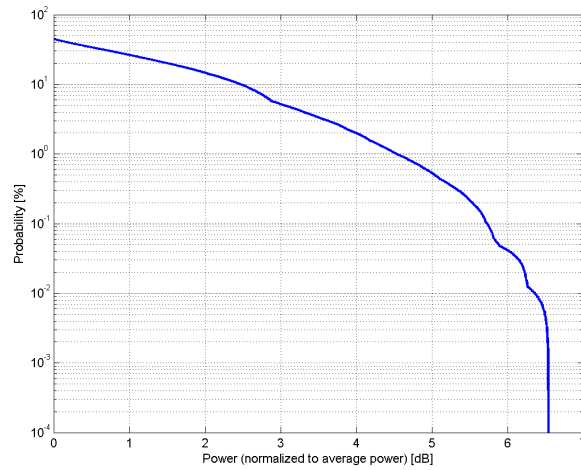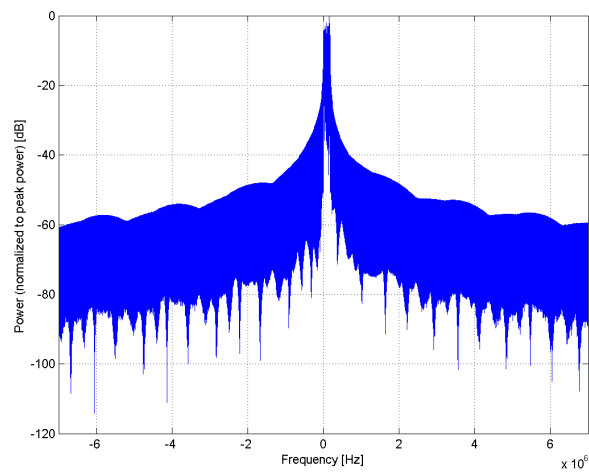**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)**

Group:	LTE-FDD
UID:	10175-CAB

PAR: [1]	**5.72 dB**
MIF: [2]	**-15.63 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, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 11, E-UTRA/FDD (1427.9-1447.9 MHz, 20209)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 13, E-UTRA/FDD (777.0-787.0 MHz, 20145)
	Band 14, E-UTRA/FDD (788.0-798.0 MHz, 20146)
	Band 17, E-UTRA/FDD (704.0-716.0 MHz, 20147)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 24, E-UTRA/FDD (1626.5-1660.5 MHz, 20165)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 72
	TBS Index: 5
	MCS Index: 5
	Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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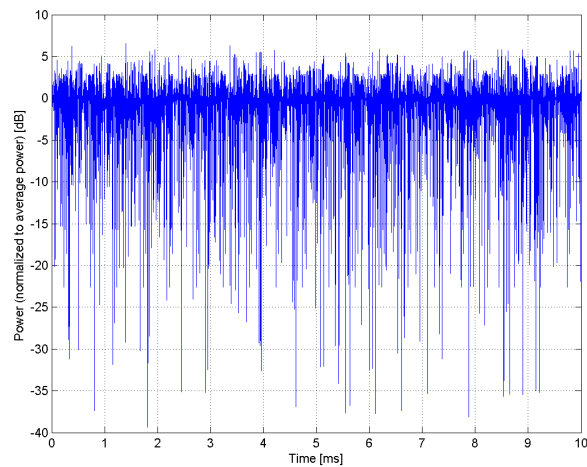
[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)**

Group:	LTE-FDD
UID:	10176-CAB

PAR: [1]	**6.52 dB**
MIF: [2]	**-9.76 dB**

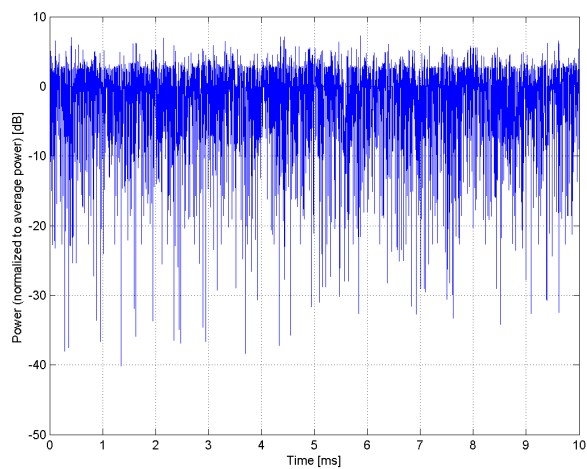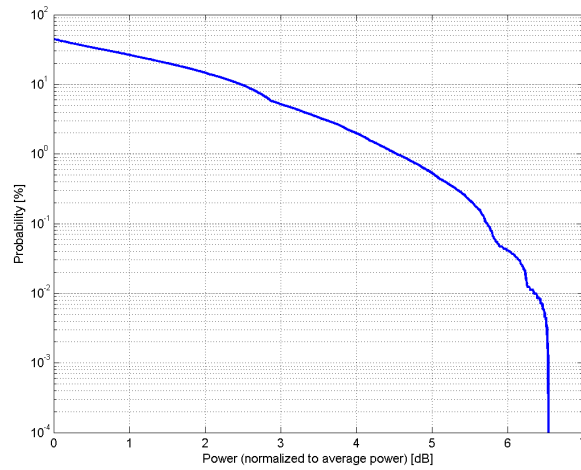|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 11, E-UTRA/FDD (1427.9-1447.9 MHz, 20209)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 13, E-UTRA/FDD (777.0-787.0 MHz, 20145)
	Band 14, E-UTRA/FDD (788.0-798.0 MHz, 20146)
	Band 17, E-UTRA/FDD (704.0-716.0 MHz, 20147)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 24, E-UTRA/FDD (1626.5-1660.5 MHz, 20165)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 256
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

---

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

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)**

Group:	LTE-FDD
UID:	10177-CAC

PAR: [1]	**5.73 dB**
MIF: [2]	**-15.63 dB**

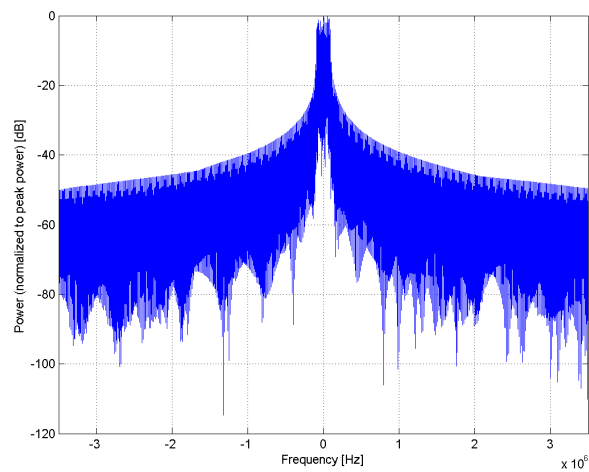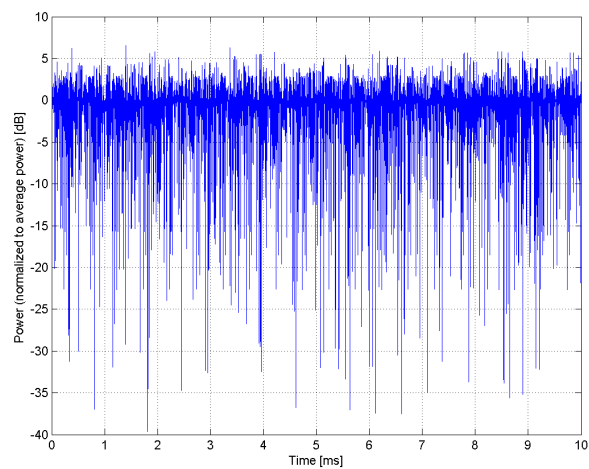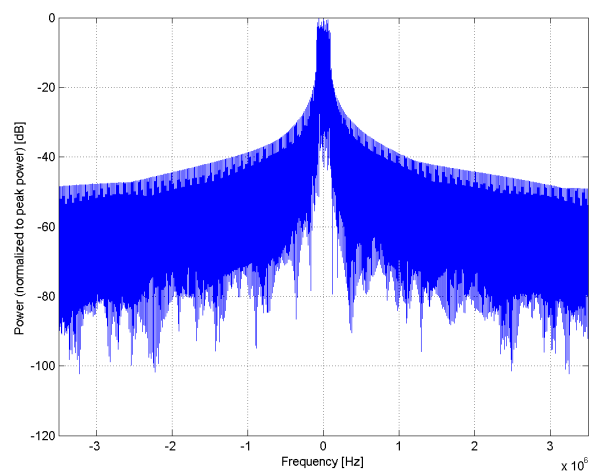|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	QPSK
Frequency Band:	Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 11, E-UTRA/FDD (1427.9-1447.9 MHz, 20209)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 13, E-UTRA/FDD (777.0-787.0 MHz, 20145)
	Band 14, E-UTRA/FDD (788.0-798.0 MHz, 20146)
	Band 17, E-UTRA/FDD (704.0-716.0 MHz, 20147)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 24, E-UTRA/FDD (1626.5-1660.5 MHz, 20165)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 72
	TBS Index: 5
	MCS Index: 5
	Data Type: PN9
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

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

Name:	**LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)**

Group:	LTE-FDD
UID:	10178-CAB

PAR: [1]	**6.52 dB**
MIF: [2]	**-9.76 dB**

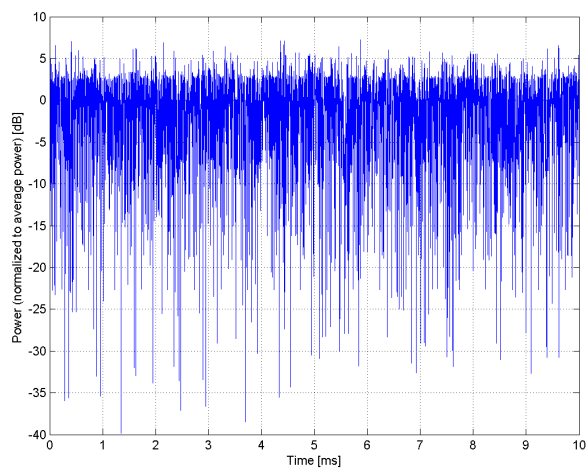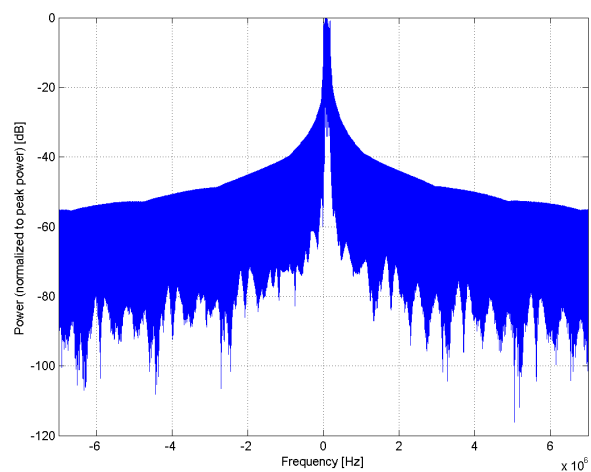|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 11, E-UTRA/FDD (1427.9-1447.9 MHz, 20209)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 13, E-UTRA/FDD (777.0-787.0 MHz, 20145)
	Band 14, E-UTRA/FDD (788.0-798.0 MHz, 20146)
	Band 17, E-UTRA/FDD (704.0-716.0 MHz, 20147)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 24, E-UTRA/FDD (1626.5-1660.5 MHz, 20165)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: 16QAM
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 256
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	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-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)**

Group: LTE-FDD
UID: 10179-CAB

PAR: [1]	**6.50 dB**
MIF: [2]	**-9.93 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 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)
Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
Band 11, E-UTRA/FDD (1427.9-1447.9 MHz, 20209)
Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
Band 13, E-UTRA/FDD (777.0-787.0 MHz, 20145)
Band 14, E-UTRA/FDD (788.0-798.0 MHz, 20146)
Band 17, E-UTRA/FDD (704.0-716.0 MHz, 20147)
Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
Band 24, E-UTRA/FDD (1626.5-1660.5 MHz, 20165)
Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
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: 1
Transport Block Size: 552
TBS Index: 23
MCS Index: 25
Data Type: PN9
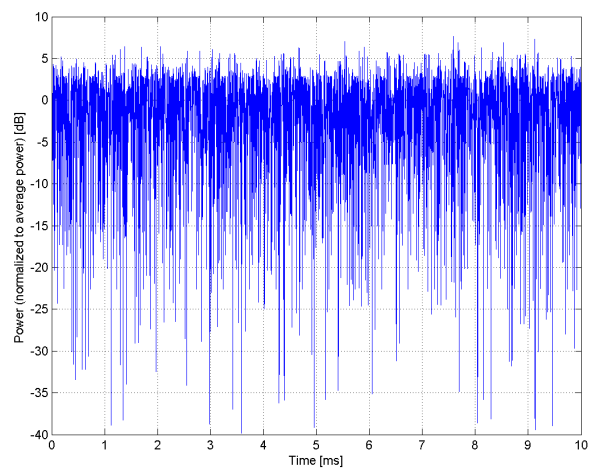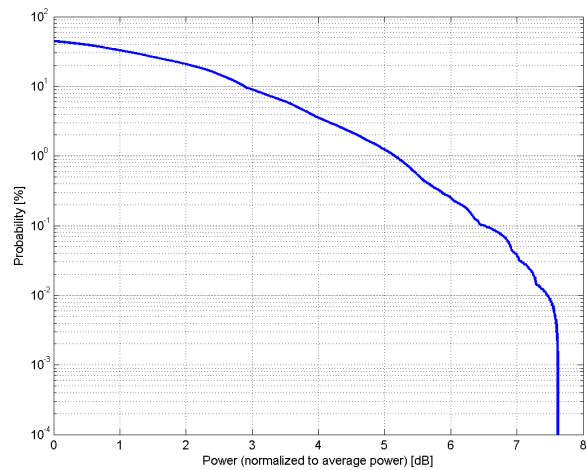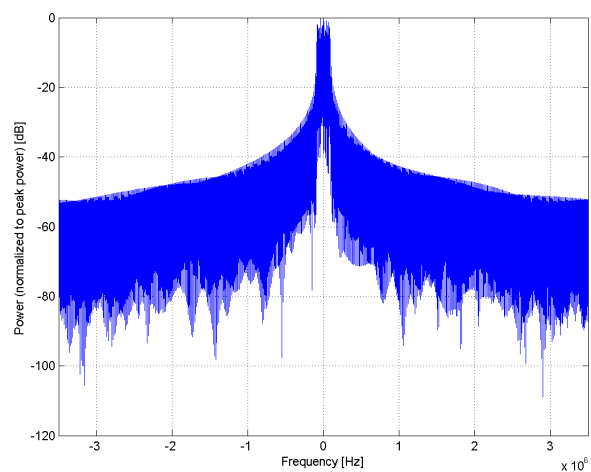Bandwidth: 10.0 MHz
Integration Time: 10.0 ms

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

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)**

Group:	LTE-FDD
UID:	10180-CAB

PAR: [1]	**6.50 dB**
MIF: [2]	**-9.93 dB**

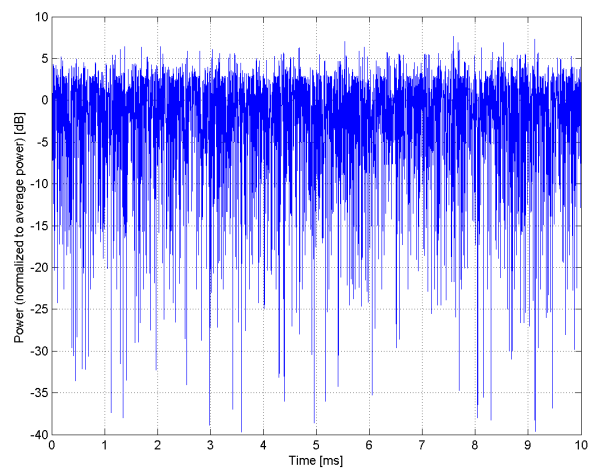|	
Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	64-QAM
Frequency Band:	Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 11, E-UTRA/FDD (1427.9-1447.9 MHz, 20209)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 13, E-UTRA/FDD (777.0-787.0 MHz, 20145)
	Band 14, E-UTRA/FDD (788.0-798.0 MHz, 20146)
	Band 17, E-UTRA/FDD (704.0-716.0 MHz, 20147)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 24, E-UTRA/FDD (1626.5-1660.5 MHz, 20165)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
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: 1
	Transport Block Size: 552
	TBS Index: 23
	MCS Index: 25
	Data Type: PN9
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)
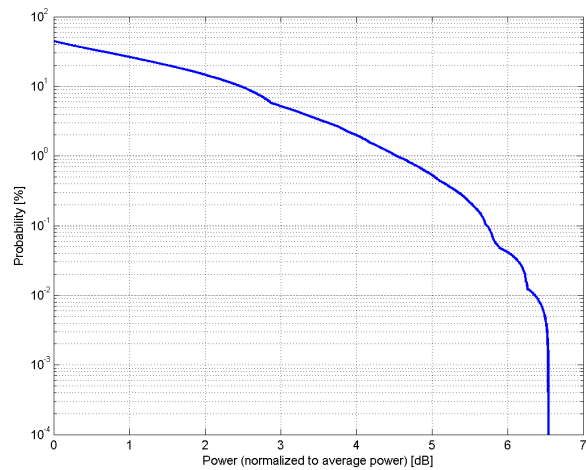

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
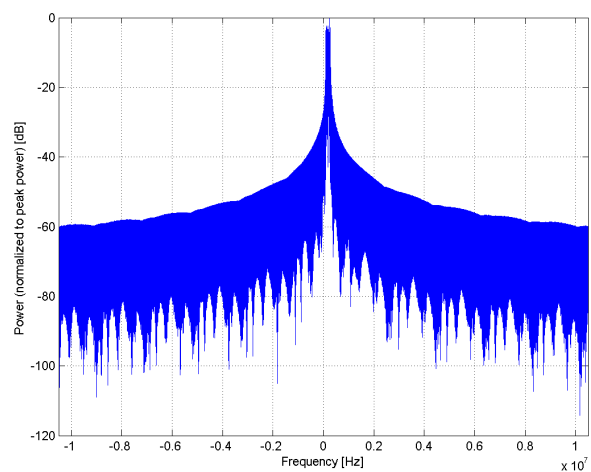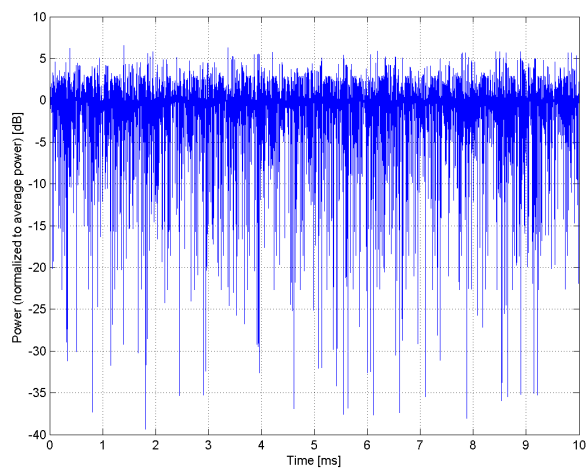### Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)**

Group:	LTE-FDD
UID:	10181-CAB

PAR: [1]	**5.72 dB**
MIF: [2]	**-15.63 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, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 72
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

---

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

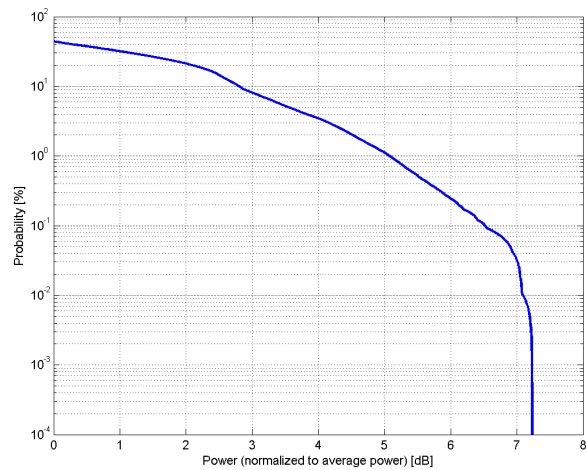**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

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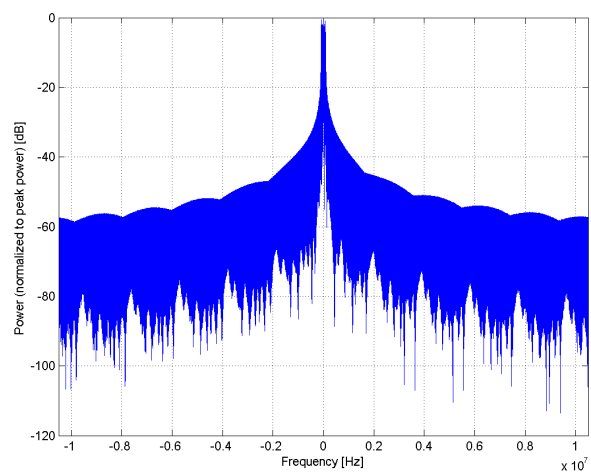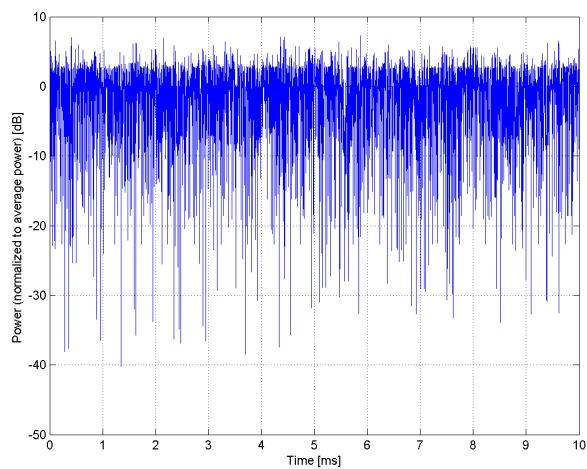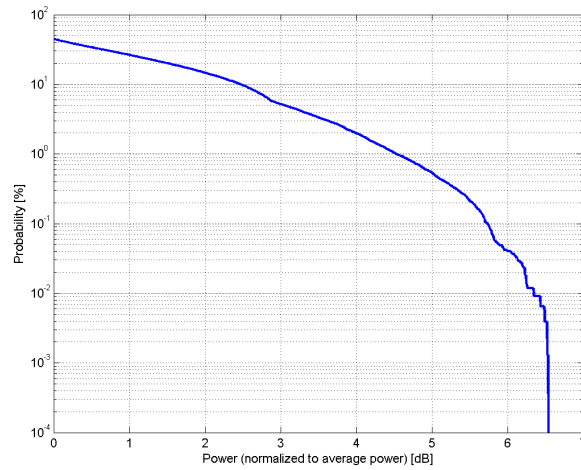### Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)**

Group:	LTE-FDD
UID:	10182-CAB

PAR: [1]	**6.52 dB**
MIF: [2]	**-9.76 dB**

Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)
	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)
	Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)
	Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)
	Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)
	Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)
	Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)
	Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)
	Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: 16QAM
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 256
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

---

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

Calibration Laboratory of

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   Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

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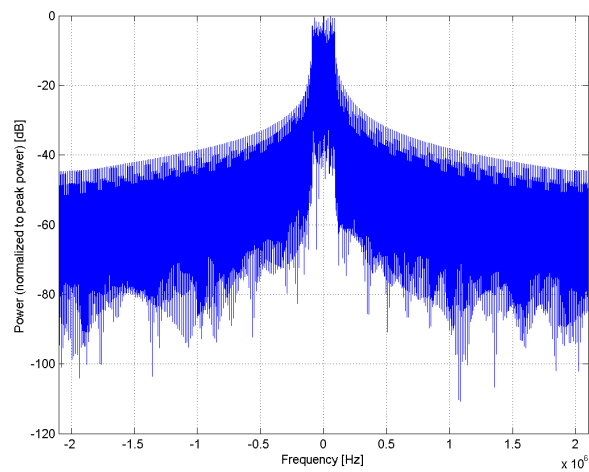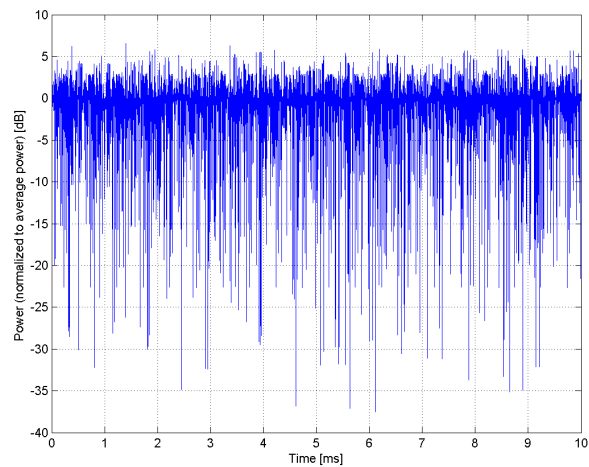### Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)**

Group:	LTE-FDD
UID:	10184-CAB

PAR: [1]	**5.73 dB**
MIF: [2]	**-15.62 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 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
	Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 72
	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)
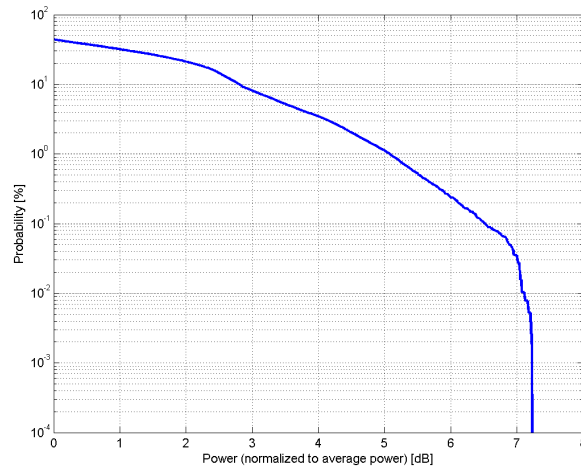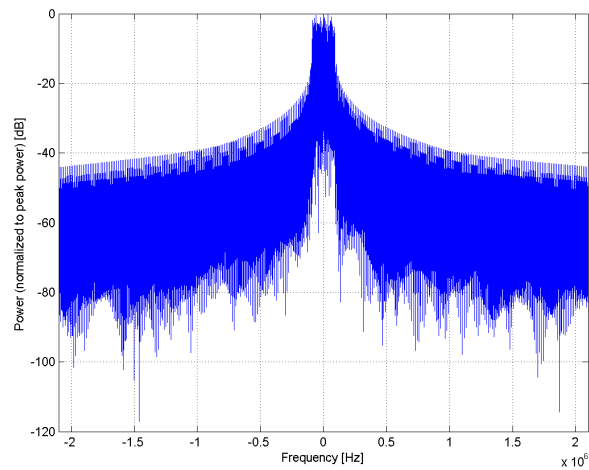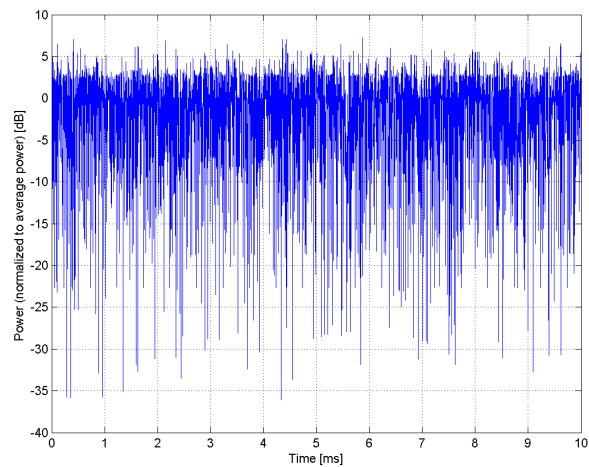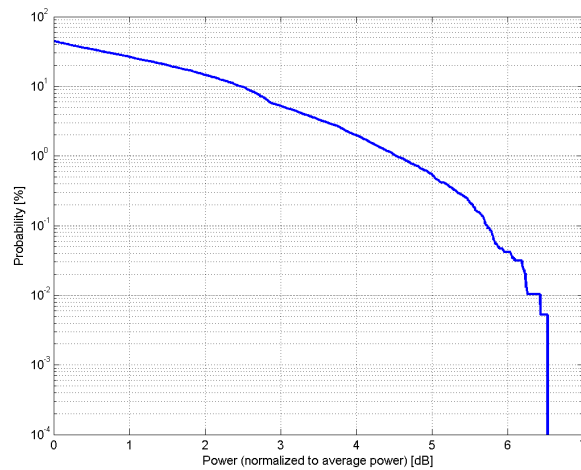

Frequency Domain

Time Domain

Calibration Laboratory of

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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)**

Group: LTE-FDD
UID: 10185-CAB

PAR: [1]	**6.51 dB**
MIF: [2]	**-9.76 dB**

Standard Reference: 3GPP / ETSI TS 136.101 V8.4.0
3GPP / ETSI TS 136.213 V8.4.0
FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category: Random amplitude modulation
Modulation: 16-QAM
Frequency Band: Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213)
Detailed Specification: Modulation Scheme: SC-FDMA
Number of PUSCHs: 1
Settings for Subframe #0 to #9:
Modulation Scheme: 16QAM
Data Type: UL-SCH
Number RB: 1
Transport Block Size: 256
TBS Index: 14
MCS Index: 15
Data Type: PN9
Bandwidth: 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).

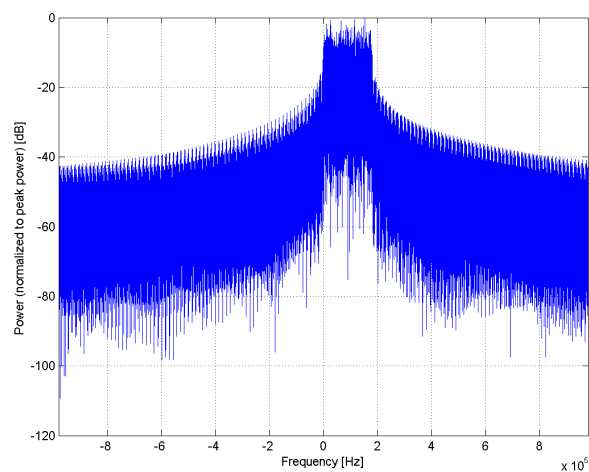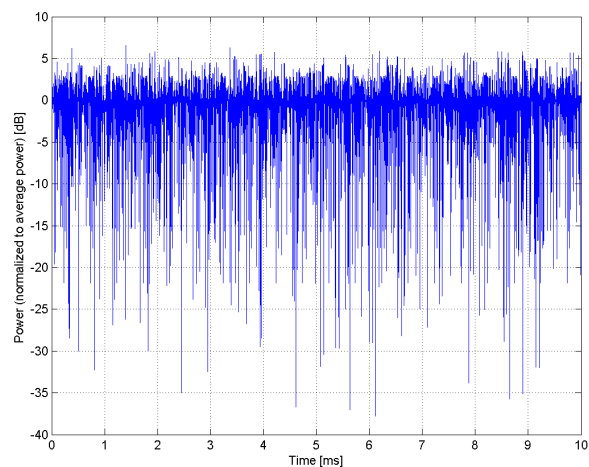**Complementary Cumulative Distribution Function (CCDF)**
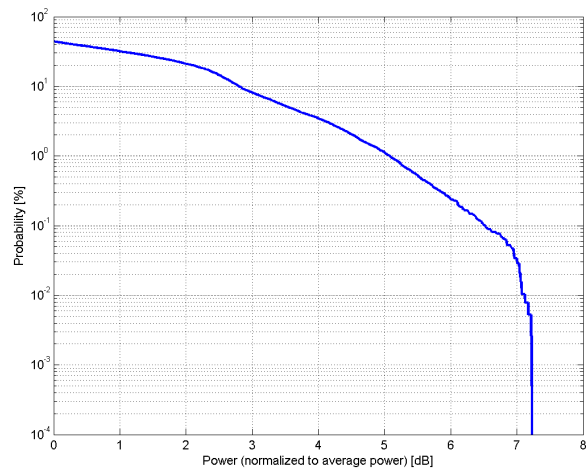

Frequency Domain

Time Domain

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland
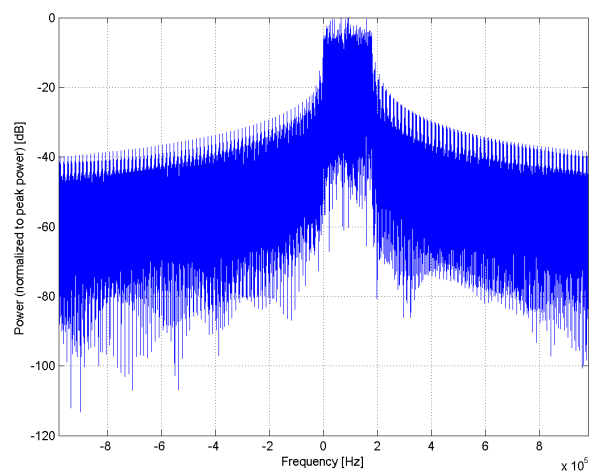
Name:	**LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)**

Group:	LTE-FDD
UID:	10187-CAB

PAR: [1]	**5.73 dB**
MIF: [2]	**-15.62 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 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: QPSK
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 72
	TBS Index: 5
	MCS Index: 5
	Data Type: PN9
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)'"
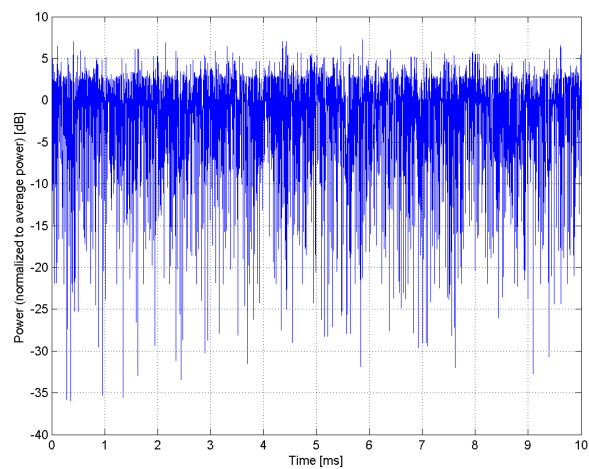[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

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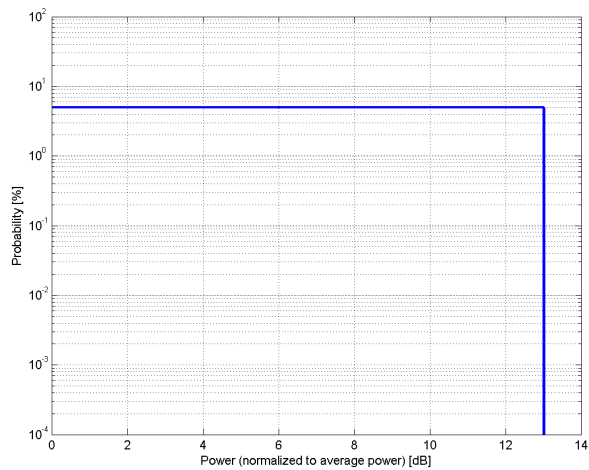**Zeughausstrasse 43, 8004 Zurich, Switzerland**

Name:	**LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)**

Group:	LTE-FDD
UID:	10188-CAB

PAR: [1]	**6.52 dB**
MIF: [2]	**-9.76 dB**

Standard Reference:	3GPP / ETSI TS 136.101 V8.4.0
	3GPP / ETSI TS 136.213 V8.4.0
	FCC OET KDB 941225 D05 SAR for LTE Devices v01
Category:	Random amplitude modulation
Modulation:	16-QAM
Frequency Band:	Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)
	Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)
	Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)
	Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)
	Band 8, E-UTRA/FDD (880.0-915.0 MHz, 20140)
	Band 12, E-UTRA/FDD (699.0-716.0 MHz, 20210)
	Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)
	Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)
	Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)
	Band 27 E-UTRA/FDD (807.0-824.0 MHz, 20212)
Detailed Specification:	Modulation Scheme: SC-FDMA
	Number of PUSCHs: 1
	Settings for Subframe #0 to #9:
	Modulation Scheme: 16QAM
	Data Type: UL-SCH
	Number RB: 1
	Transport Block Size: 256
	TBS Index: 14
	MCS Index: 15
	Data Type: PN9
Bandwidth:	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)'"
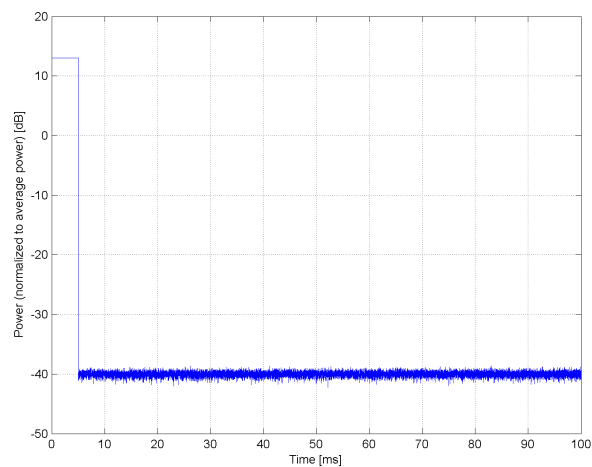[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
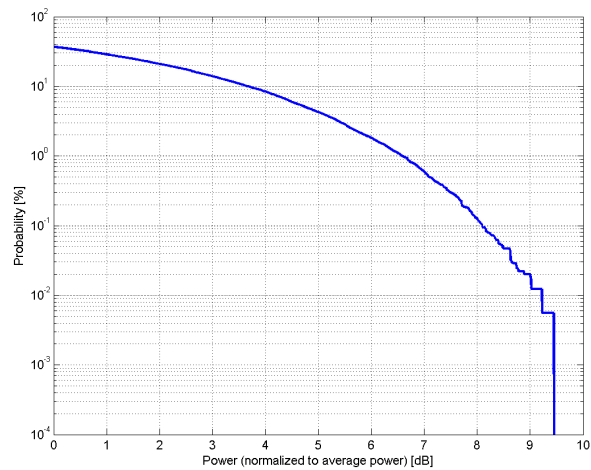

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland
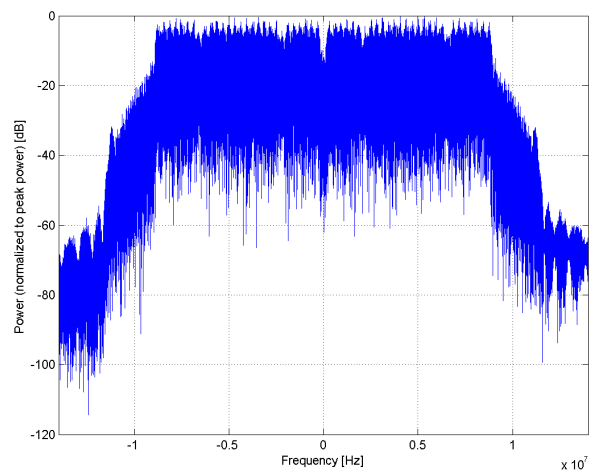
Name:	**MRI (Square, 100ms, 5ms)**

Group:	MRI
UID:	10190-CAA

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, 20063)
	MRI 3T (123.0-133.0 MHz, 20064)
Detailed Specification:	Custom Calibration Sequence
	Pulse Shape: rectangular
	Repetition Rate: 10 Hz
	Duty Cycle: 5 %
Bandwidth:	0.0 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)"'
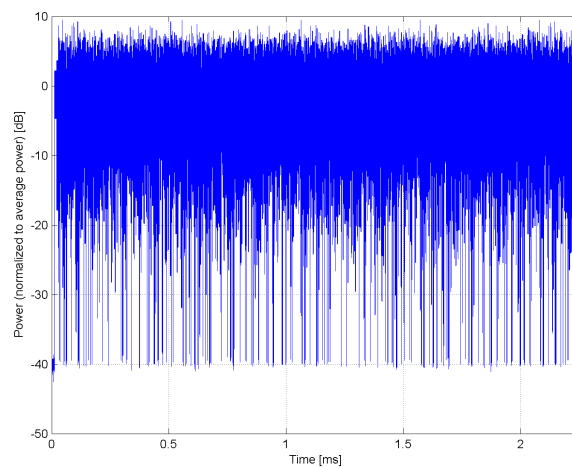[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
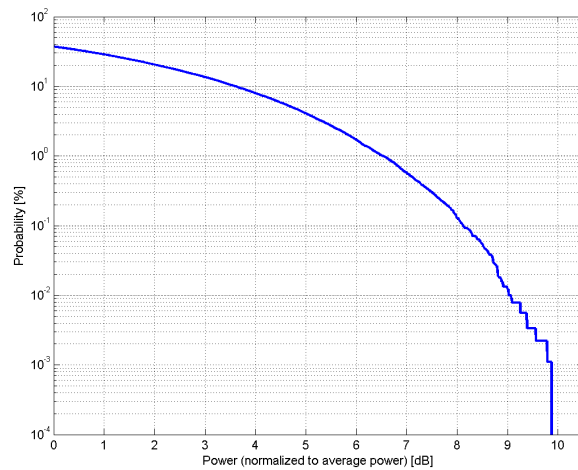

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)**

Group:	WLAN
UID:	10193-CAA

PAR: [1]	**8.09 dB**
MIF: [2]	**-15.80 dB**

Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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

Calibration Laboratory of

Schmid & Partner
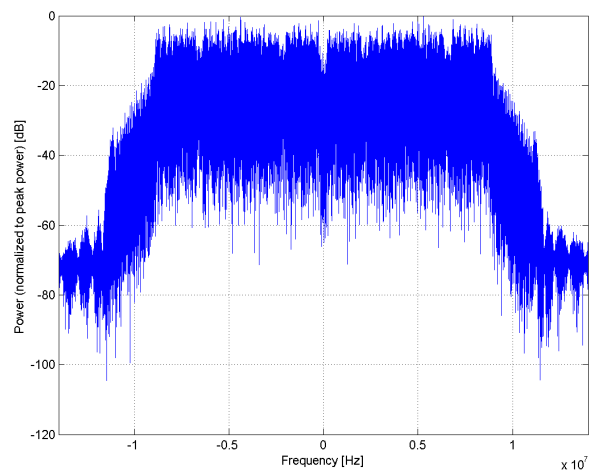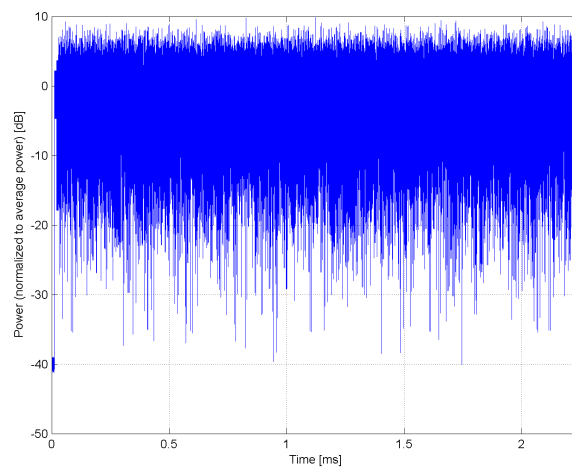   Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)**

Group:	WLAN
UID:	10194-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)
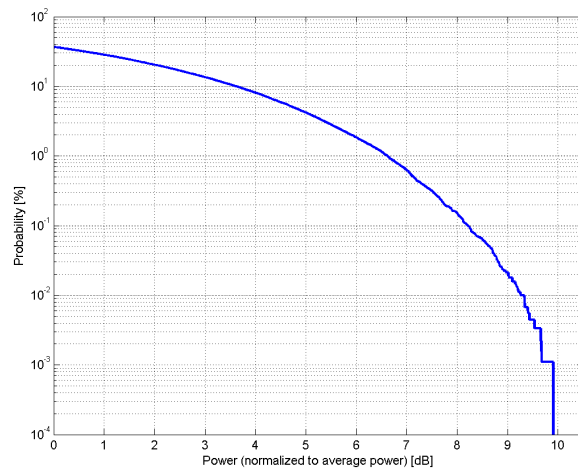

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
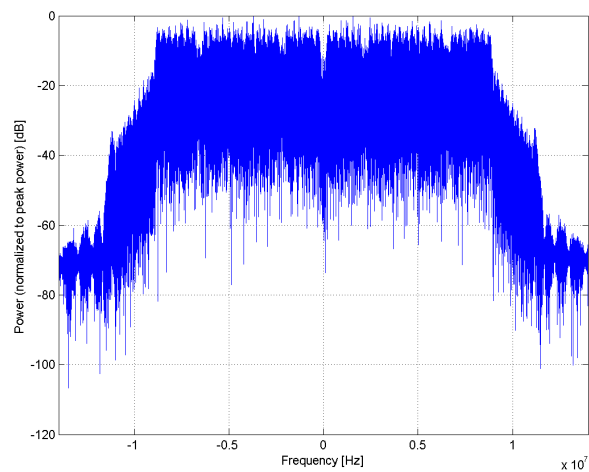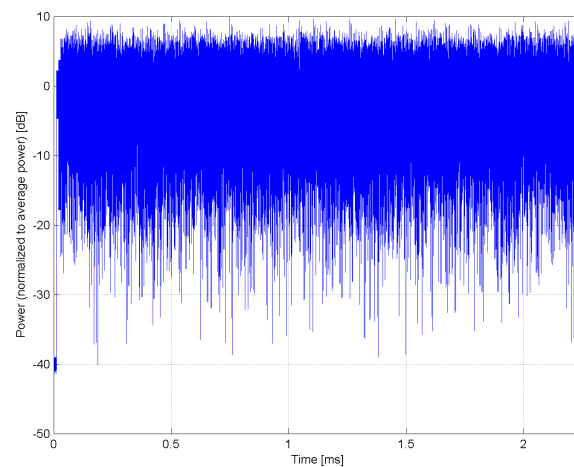### Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)**

Group:	WLAN
UID:	10195-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)
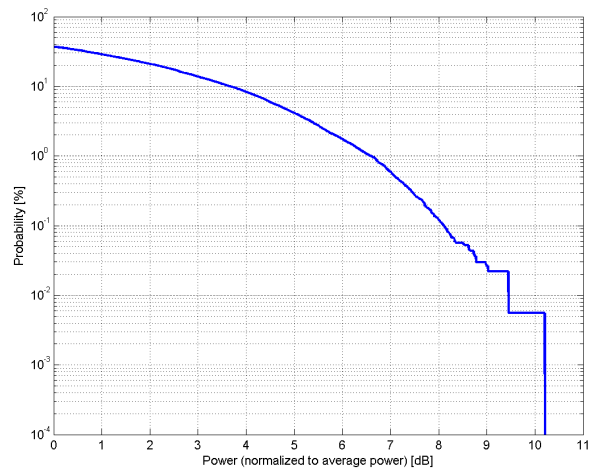

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
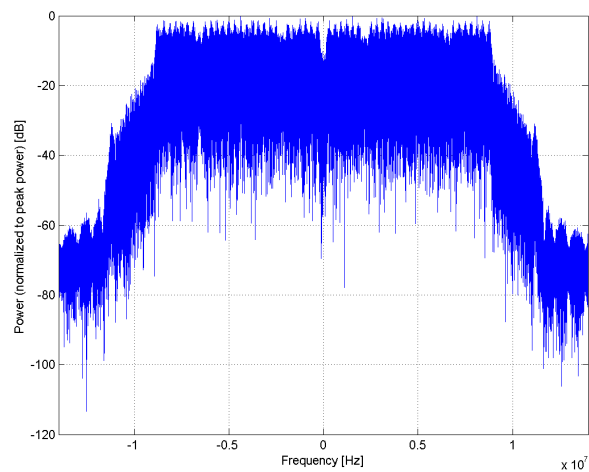### Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)**

Group:	WLAN
UID:	10196-CAA

PAR: [1]	**8.10 dB**
MIF: [2]	**-16.16 dB**

Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)'"
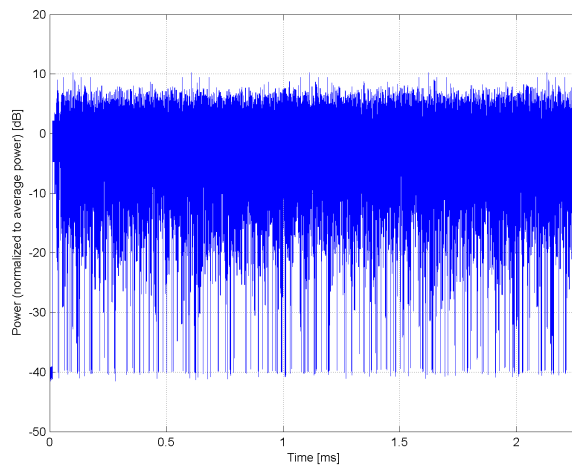[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

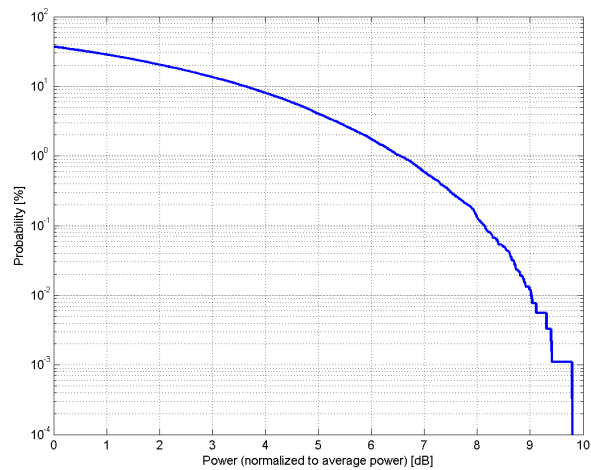**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
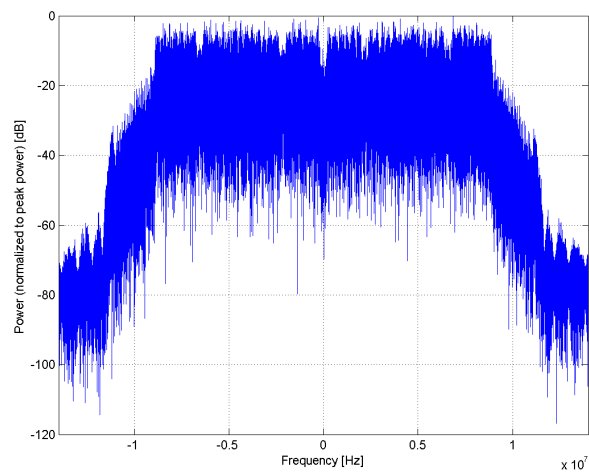## Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)**

Group:	WLAN
UID:	10197-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)'"
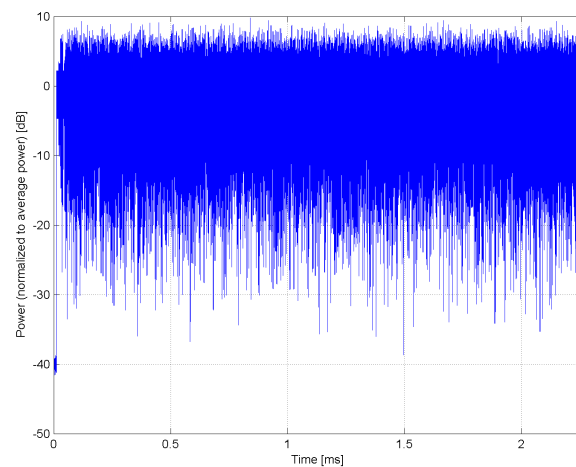[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

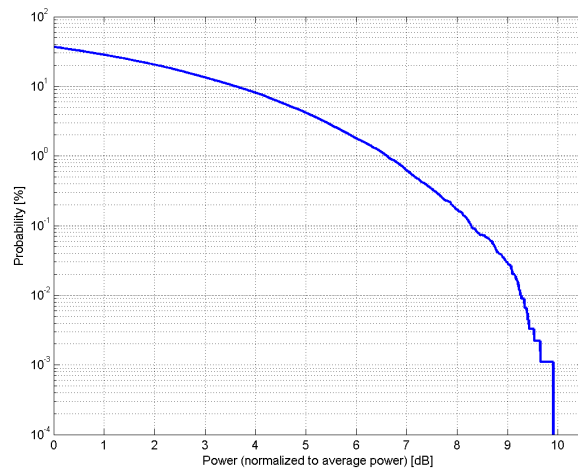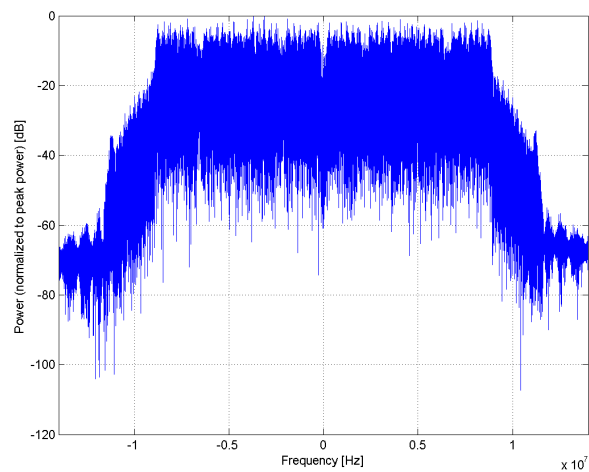**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

Calibration Laboratory of

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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)**

Group:	WLAN
UID:	10198-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)"'
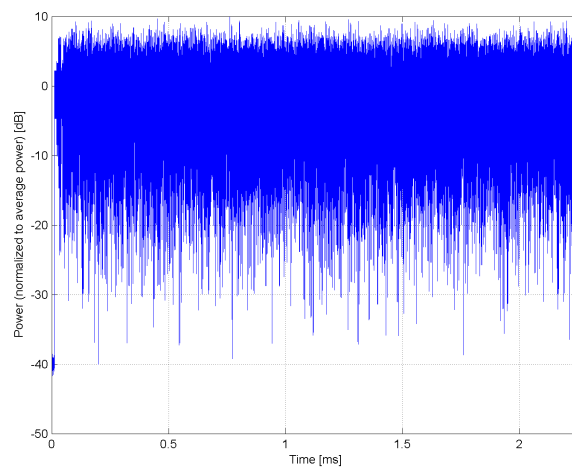[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

Calibration Laboratory of

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Name:	**MRI (Square, 5ms, 2.5ms)**

Group:	MRI
UID:	10199-CAA

|	
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, 20063)
	MRI 3T (123.0-133.0 MHz, 20064)
Detailed Specification:	Custom Calibration Sequence
	Pulse Shape: rectangular
	Repetition Rate: 200 Hz
	Duty Cycle: 50 %
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)"'
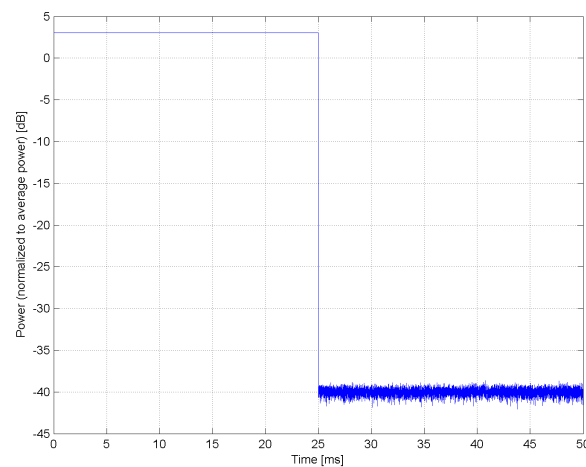[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).
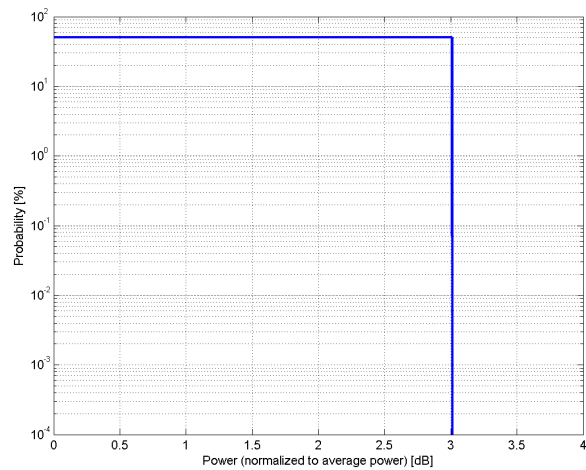
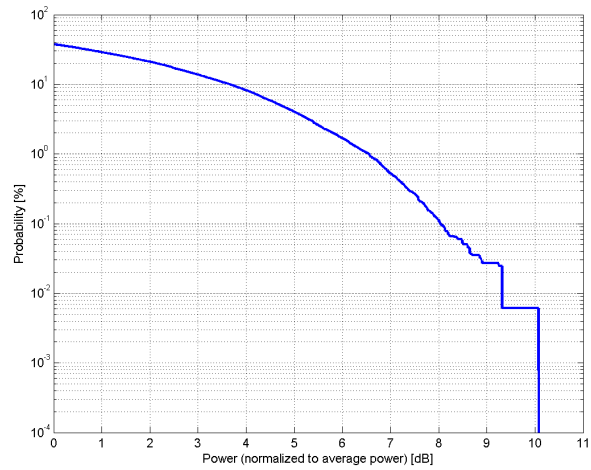**Complementary Cumulative Distribution Function (CCDF)**
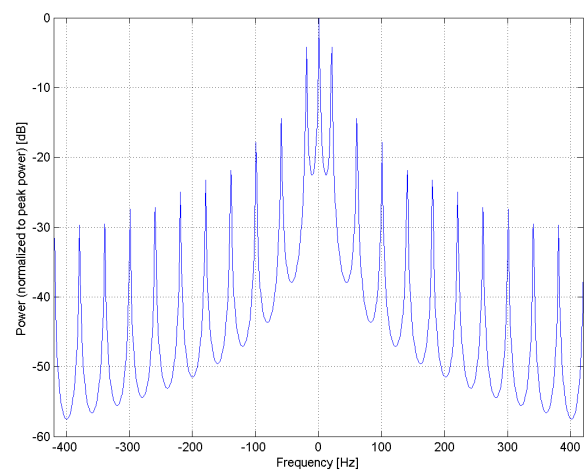
Frequency Domain

Time Domain

Calibration Laboratory of

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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland
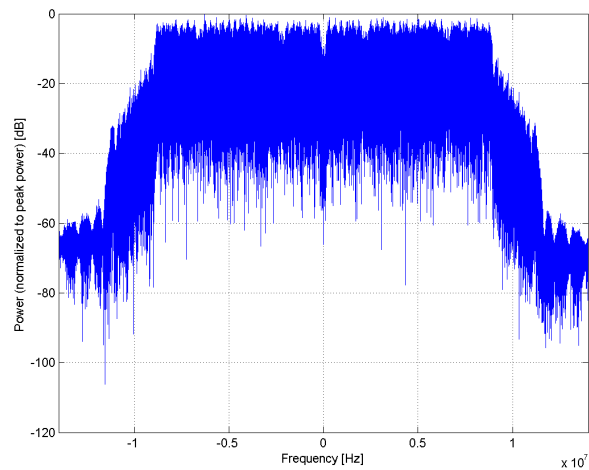
Name:	**IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)**

Group:	WLAN
UID:	10219-CAA

PAR: [1]	**8.03 dB**
MIF: [2]	**-15.94 dB**

Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)'"
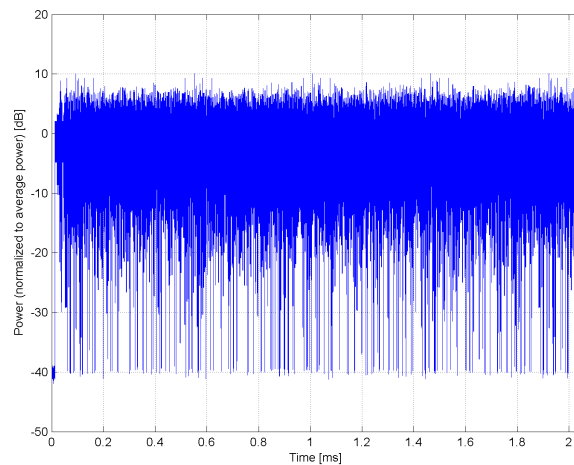[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for
      the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
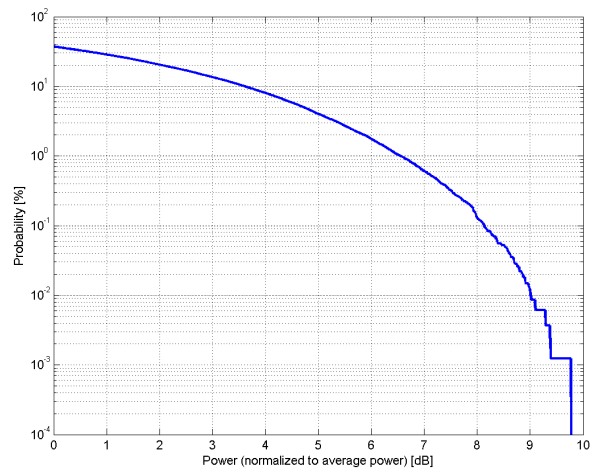

Frequency Domain

Time Domain

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Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland
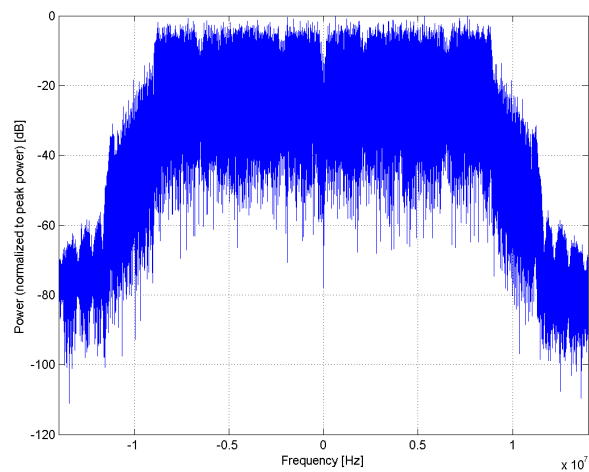
Name:	**IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)**

Group:	WLAN
UID:	10220-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)"'
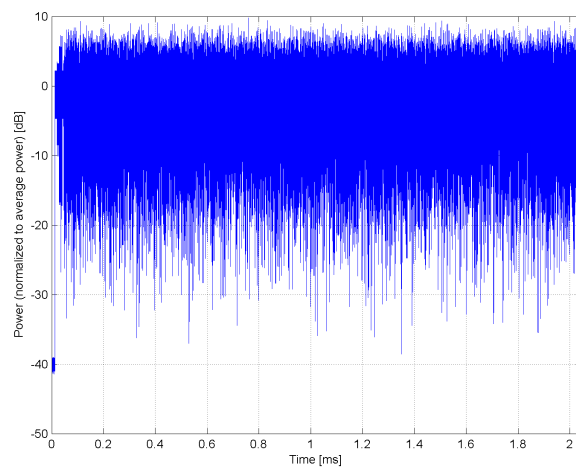[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
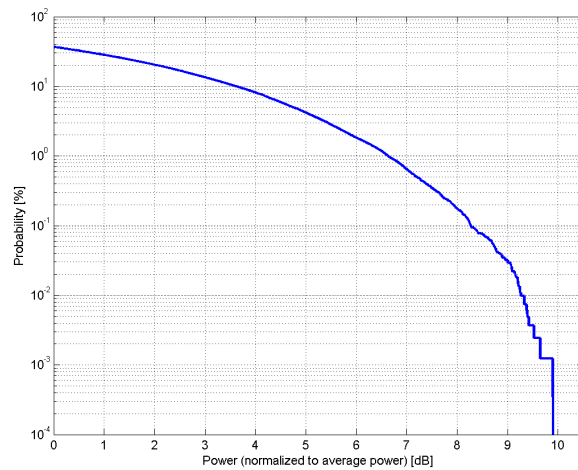

Frequency Domain

Time Domain

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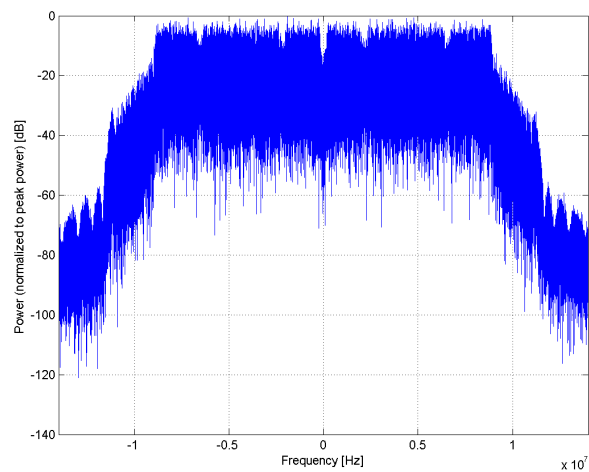
Name:	**IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)**

Group:	WLAN
UID:	10221-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)'"
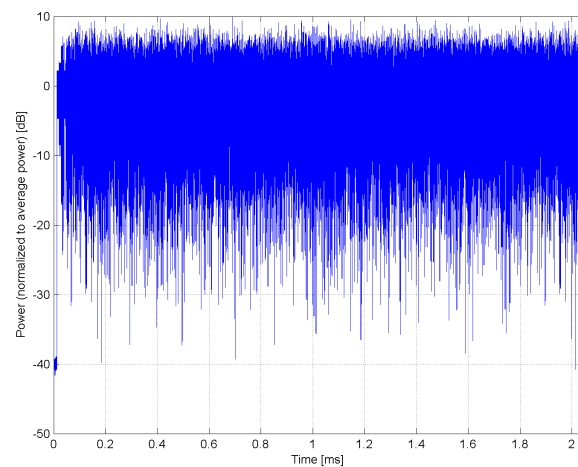[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
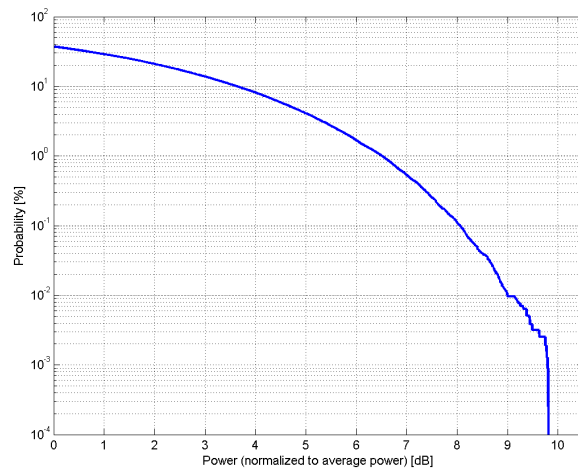

Frequency Domain

Time Domain

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Zeughausstrasse 43, 8004 Zurich, Switzerland
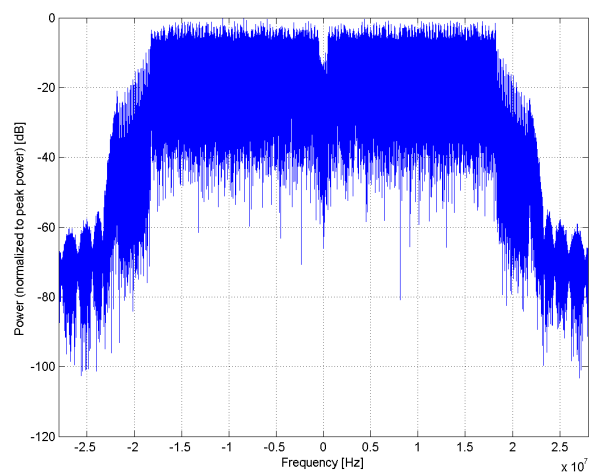
Name:	**IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)**

Group:	WLAN
UID:	10222-CAA

PAR: [1]	**8.06 dB**
MIF: [2]	**-17.00 dB**

Standard Reference:	IEEE 802.11n-2009
Category:	Random amplitude modulation
Modulation:	BPSK
Frequency Band:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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)'"
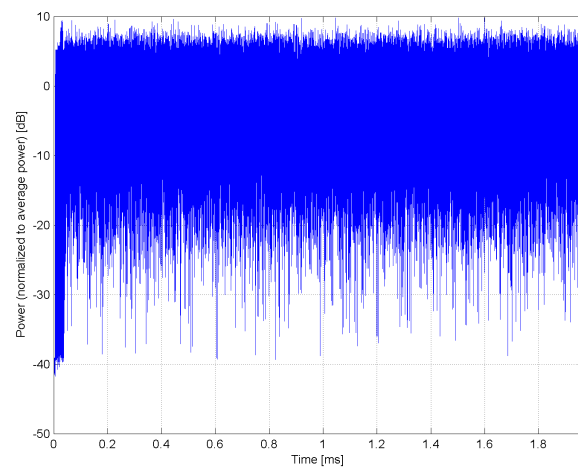[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

Calibration Laboratory of

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Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)**

Group:	WLAN
UID:	10223-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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).

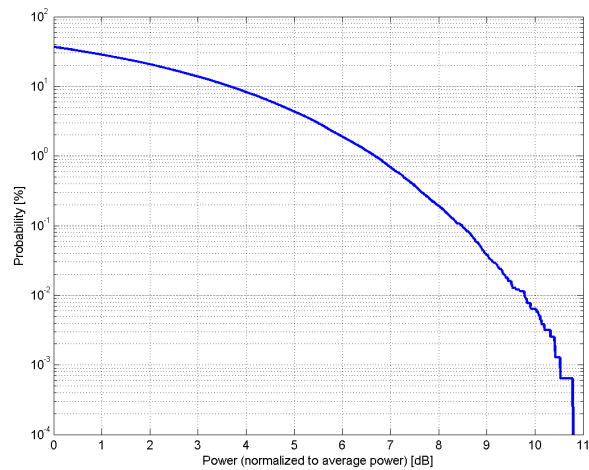**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
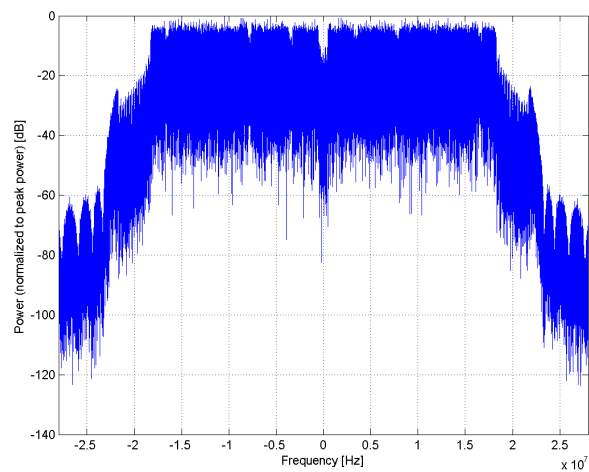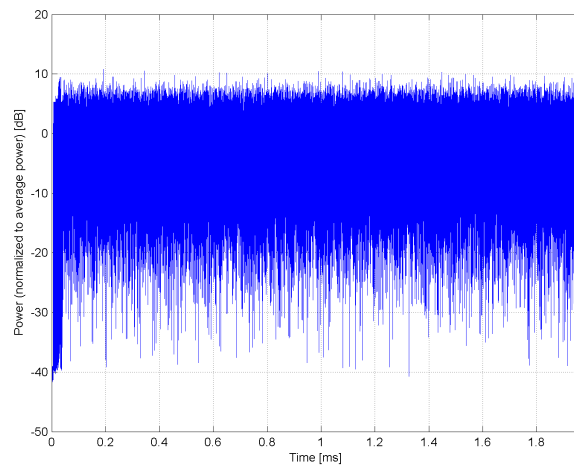## Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)**

Group:	WLAN
UID:	10224-CAA

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:	IEEE 802.11n 2.4GHz band (2409.5-2474.5 MHz, 20029)
	5 GHz Band (5030.0-5825.0 MHz, 20053)
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).

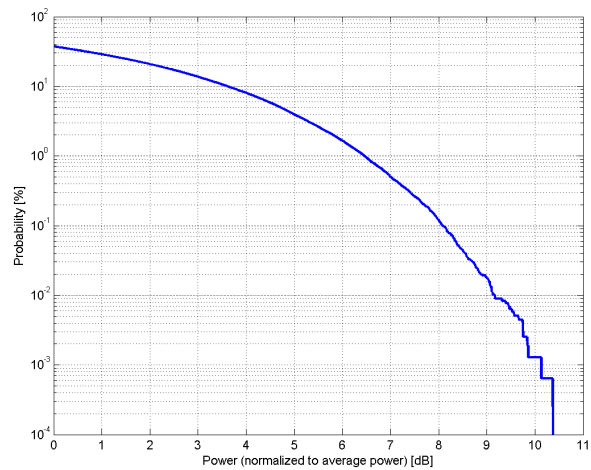**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
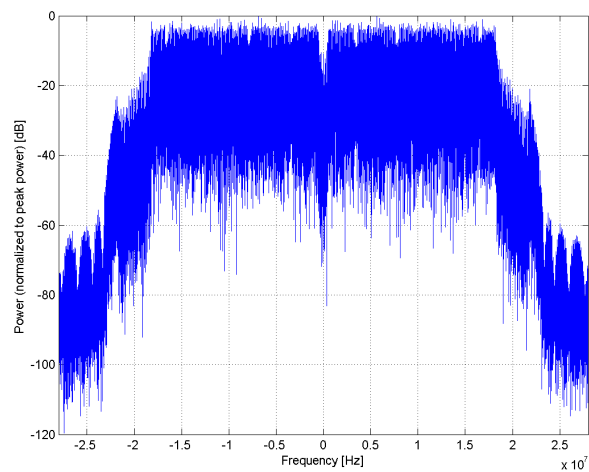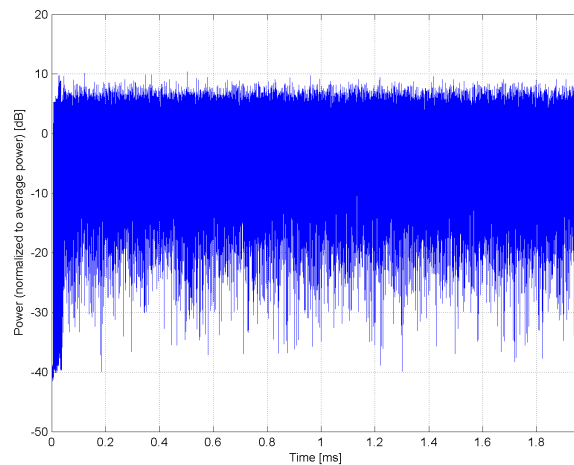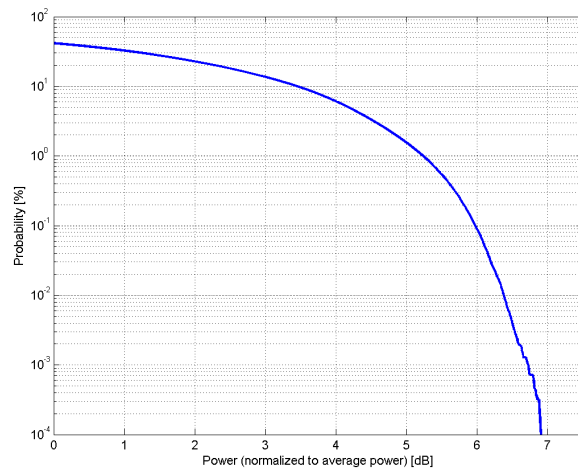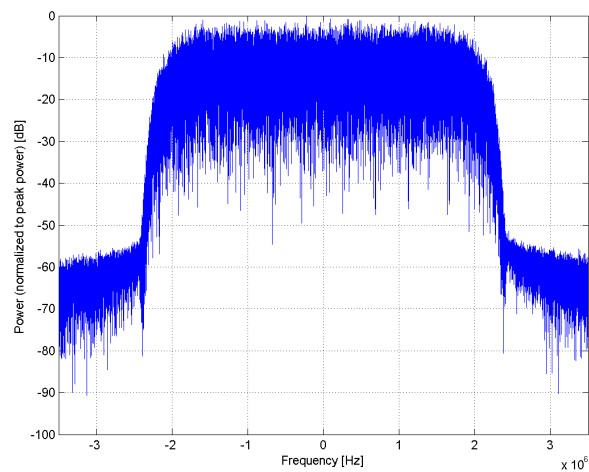## Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**UMTS-FDD (HSPA+)**

Group:	WCDMA
UID:	10225-CAA

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 25, UTRA/FDD (1932.4-1992.6 MHz, 20178)
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)'"
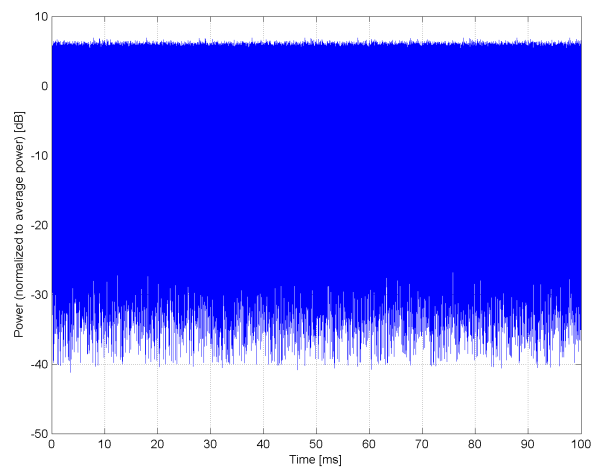
[2]　Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

Calibration Laboratory of

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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)
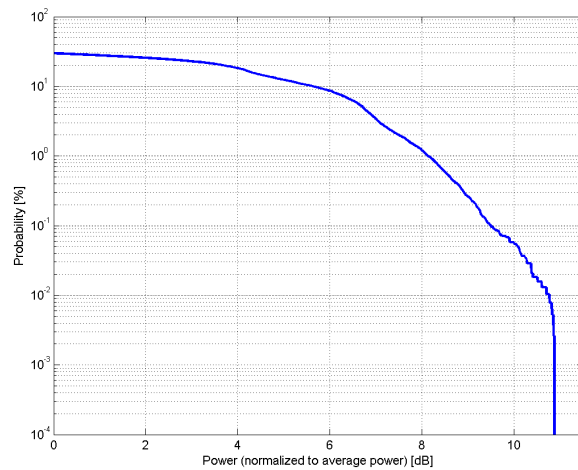

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
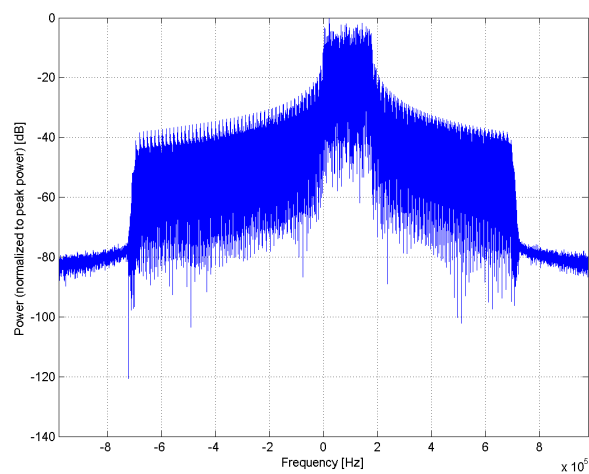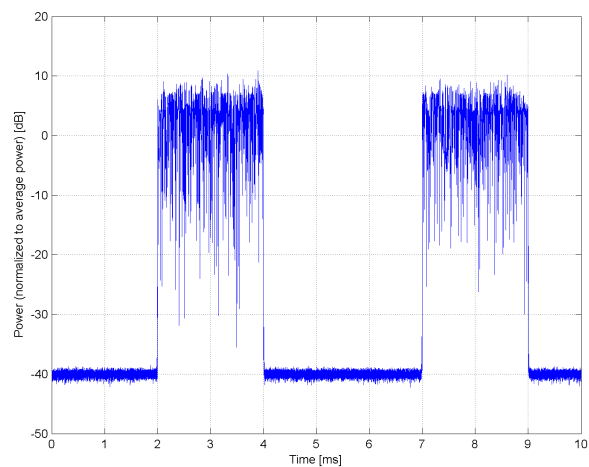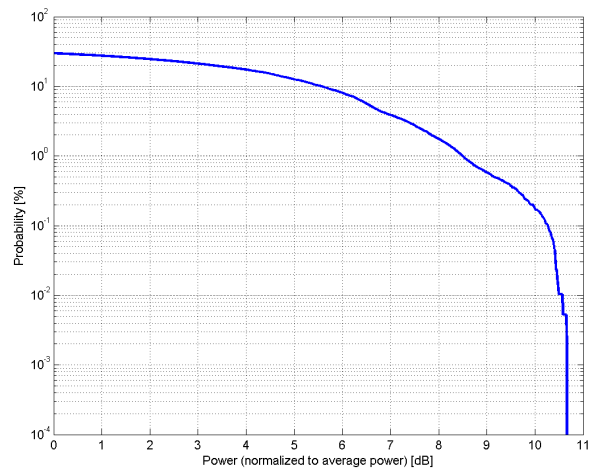##   Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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).

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   Engineering AG
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Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain

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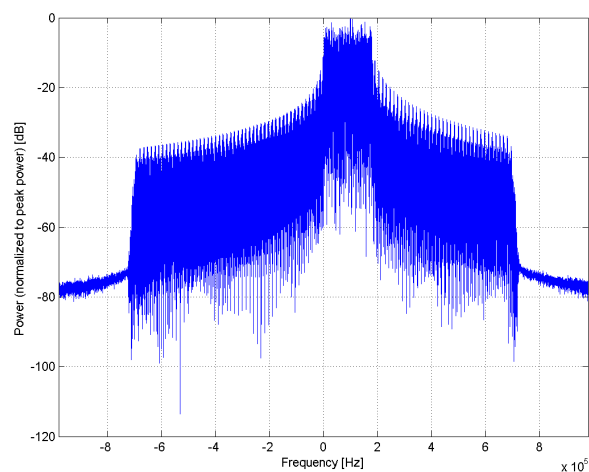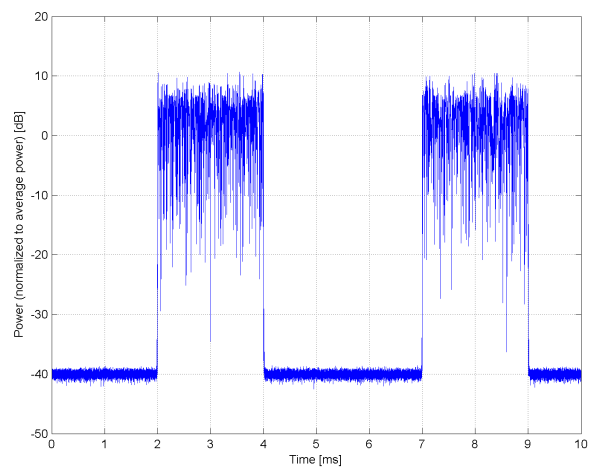## Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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).

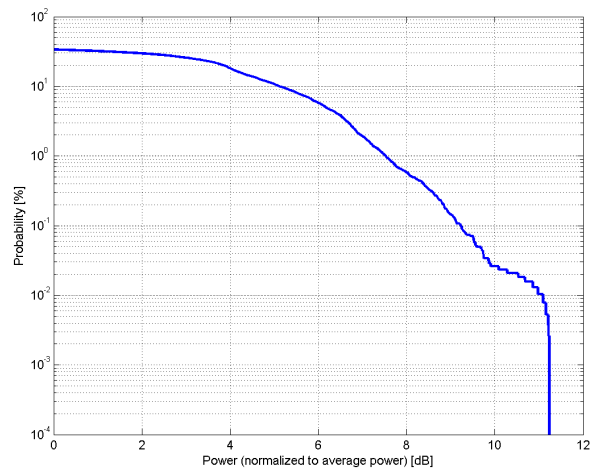**Complementary Cumulative Distribution Function (CCDF)**

Frequency Domain
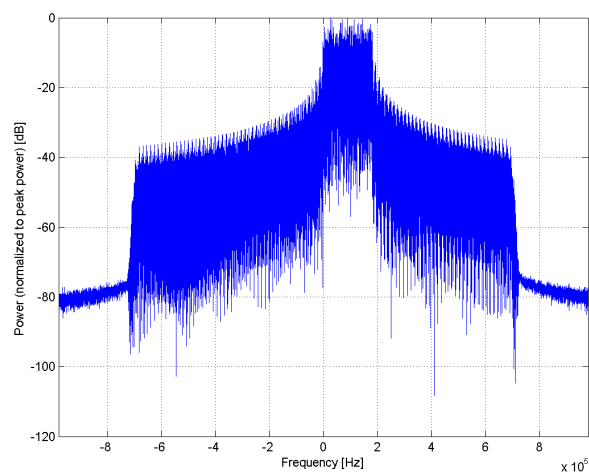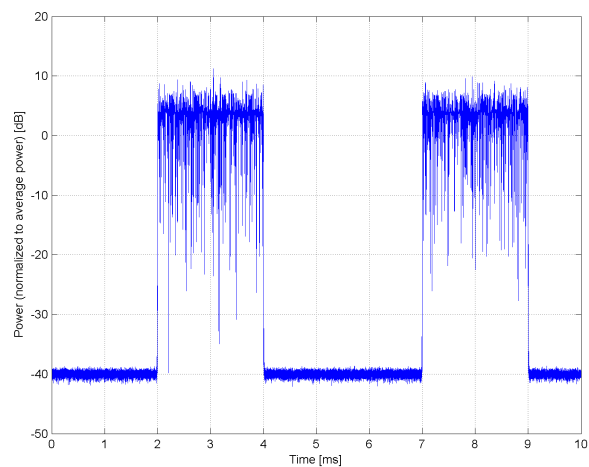

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
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)
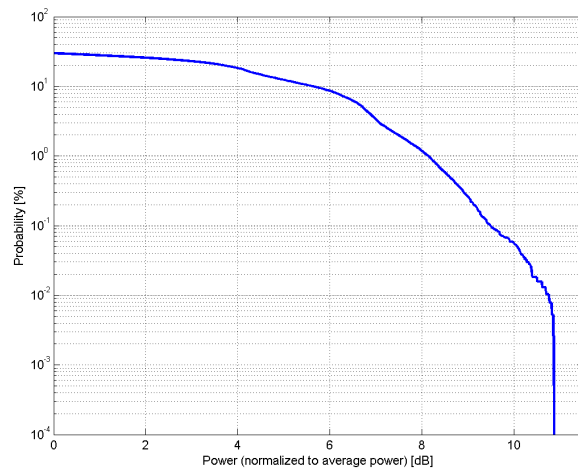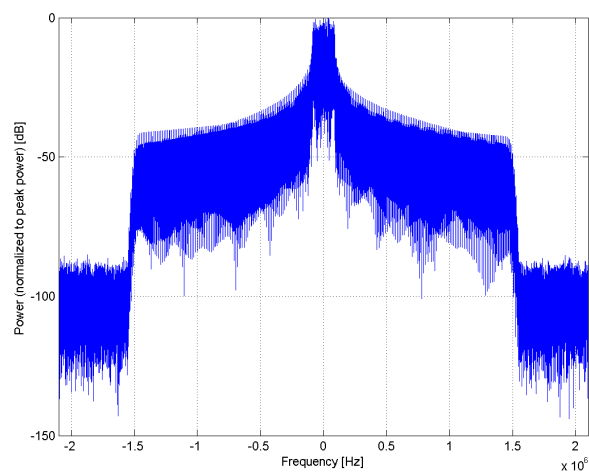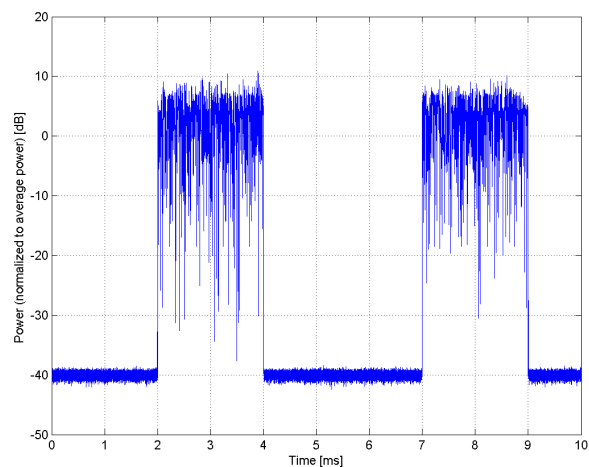

Frequency Domain

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).

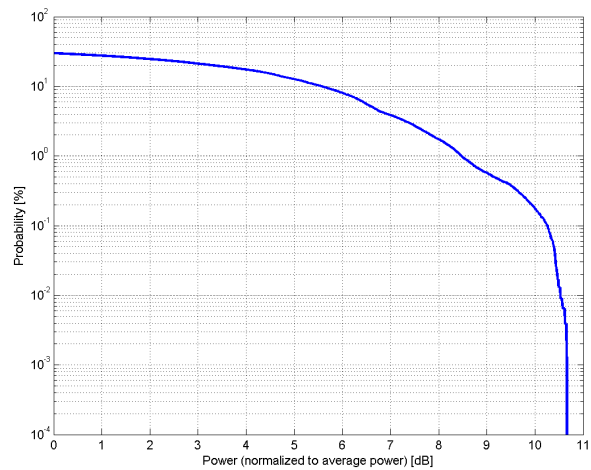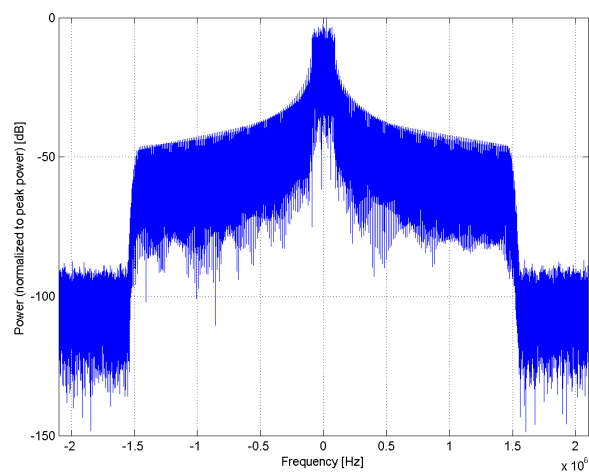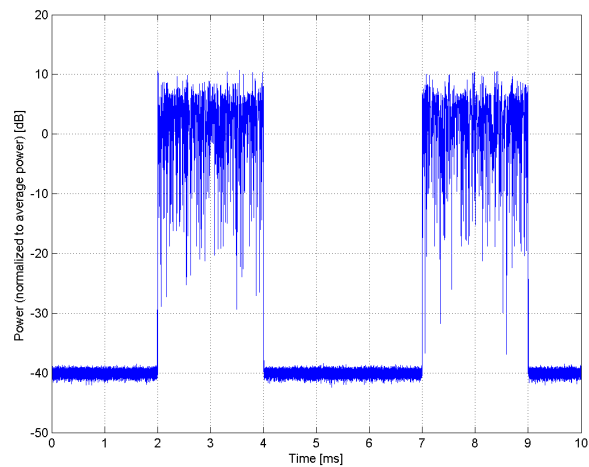**Complementary Cumulative Distribution Function (CCDF)**
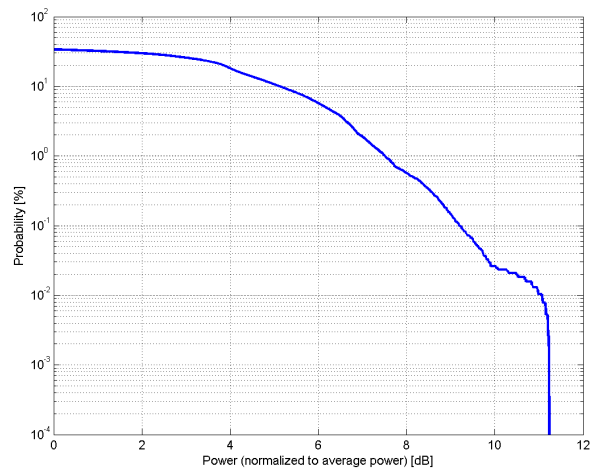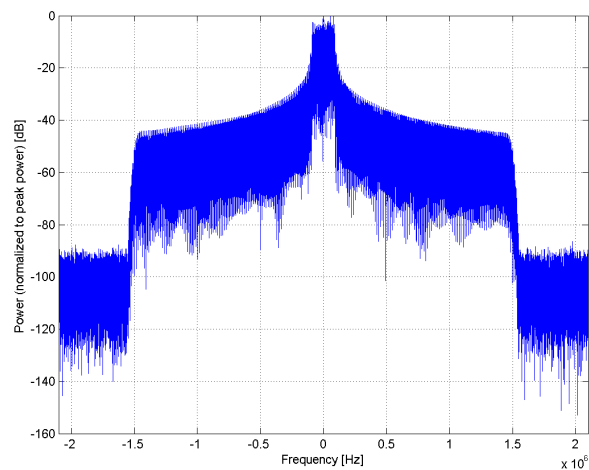

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
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

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, 16-QAM)**

Group:	LTE-TDD
UID:	10232-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 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 12
	Data Type: PN9fix
Bandwidth:	5.0 MHz
Integration Time:	10.0 ms

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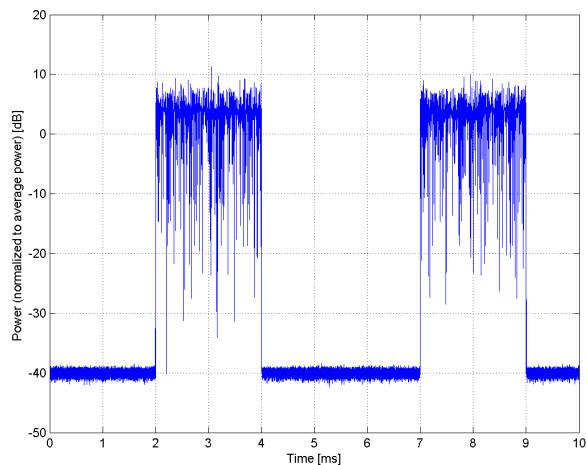[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
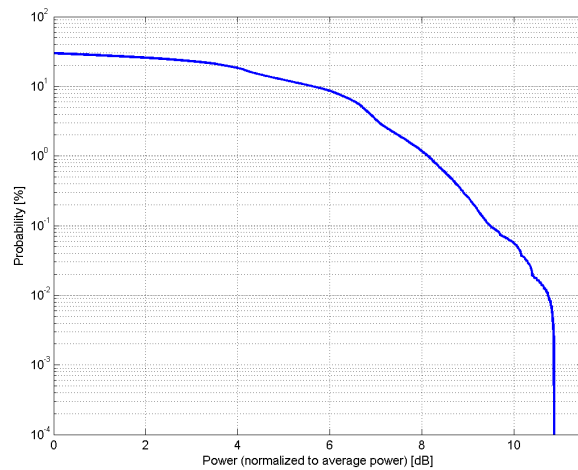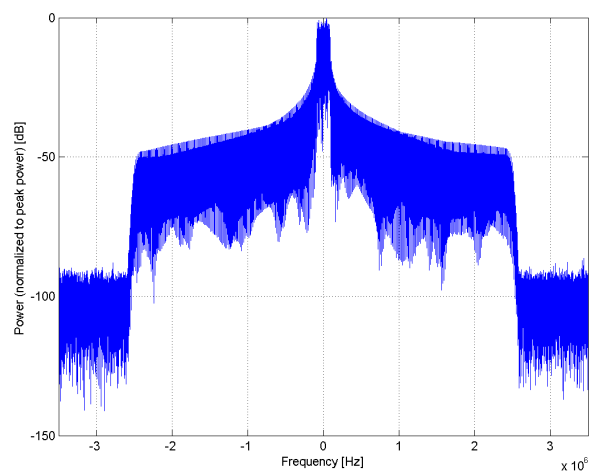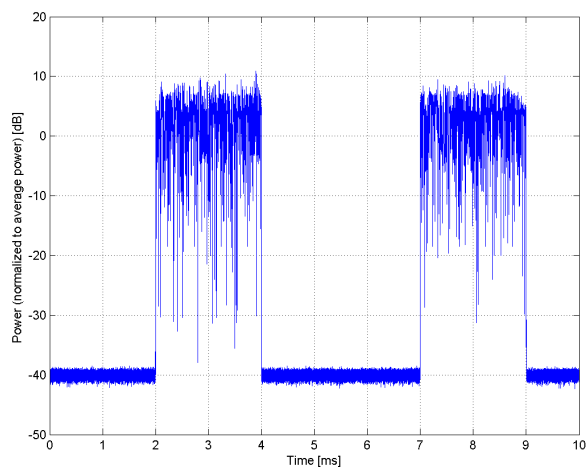

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG

Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)**

Group:	LTE-TDD
UID:	10233-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 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 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)
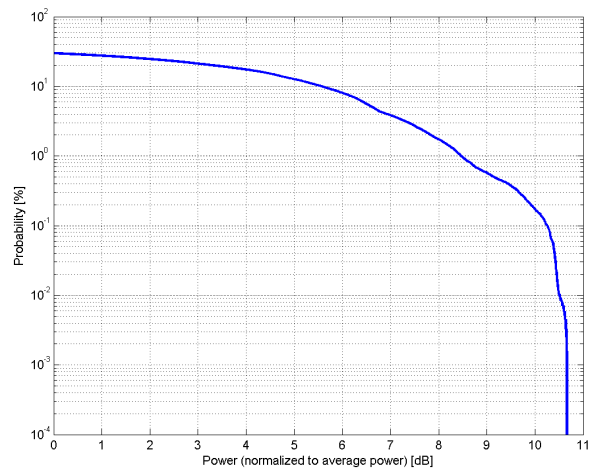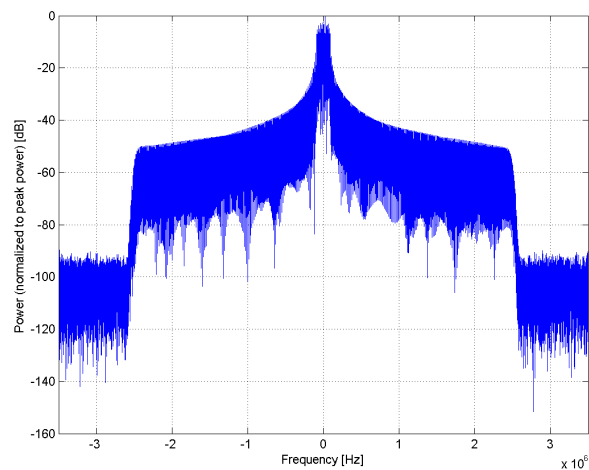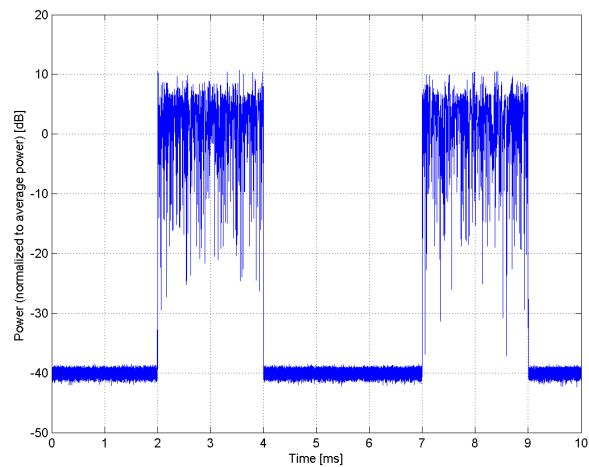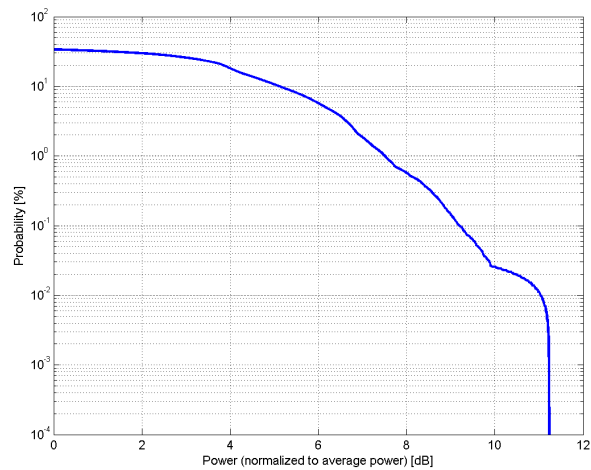

Frequency Domain

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-CAB

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, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 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).

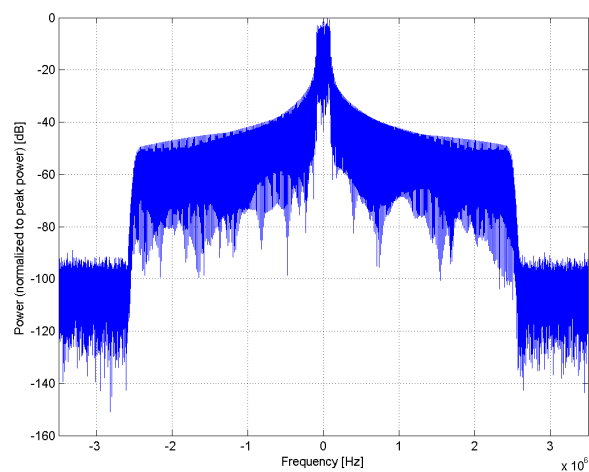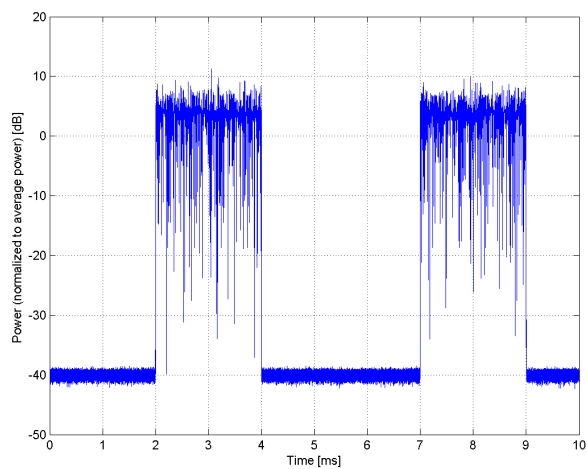**Complementary Cumulative Distribution Function (CCDF)**
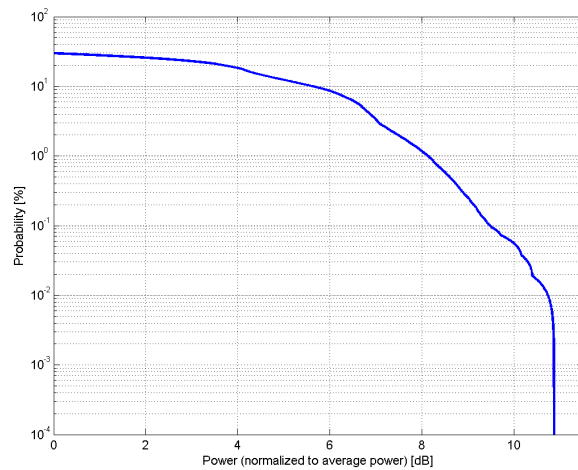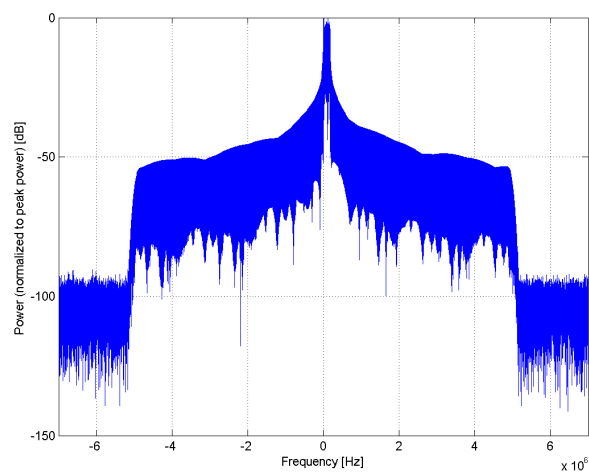
Frequency Domain

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-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 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 25
	Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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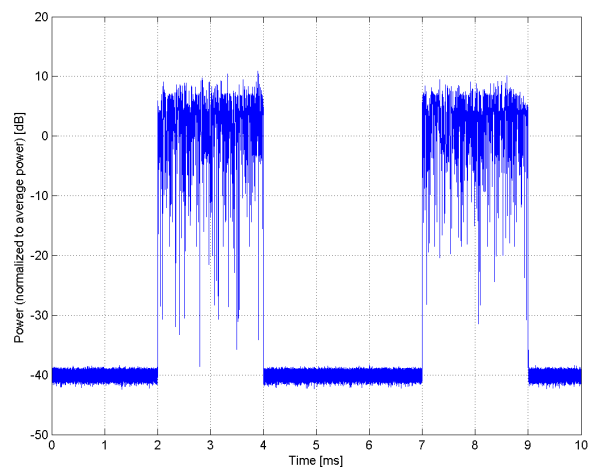[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
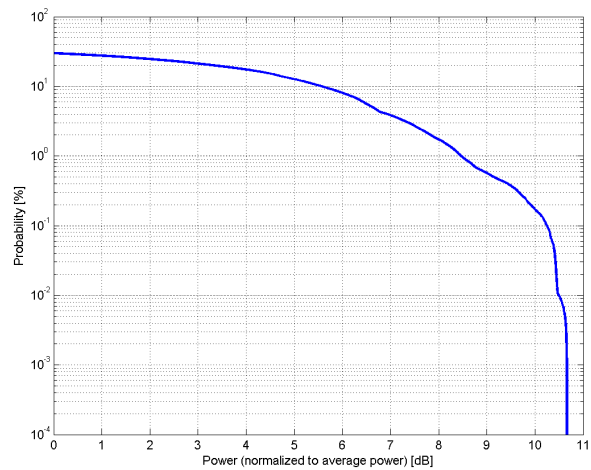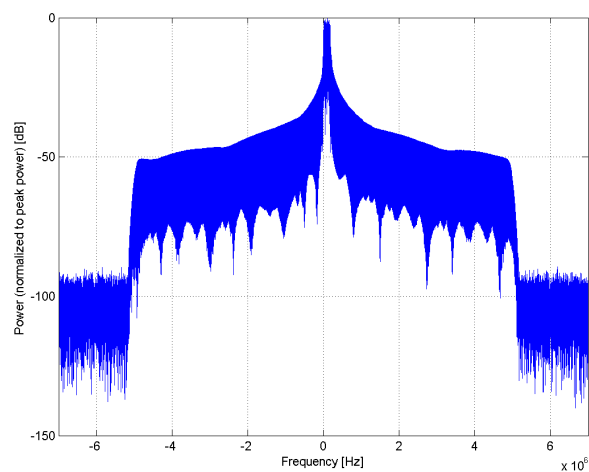

Frequency Domain

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-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 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 25
	Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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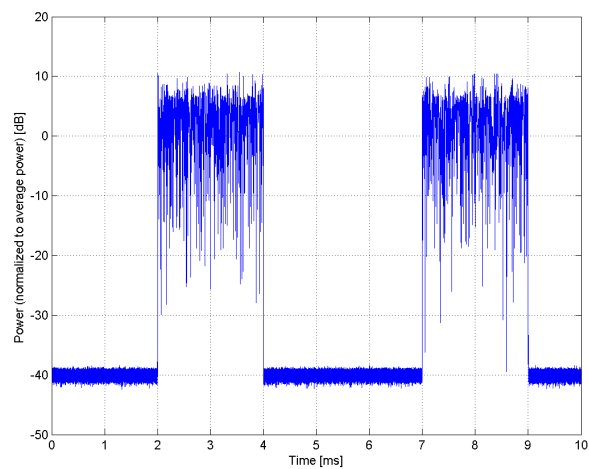[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
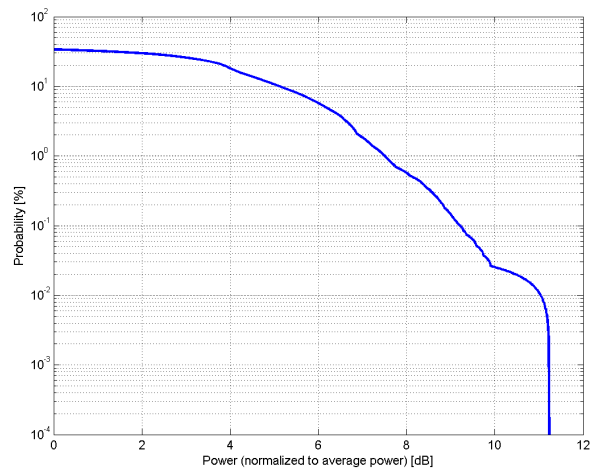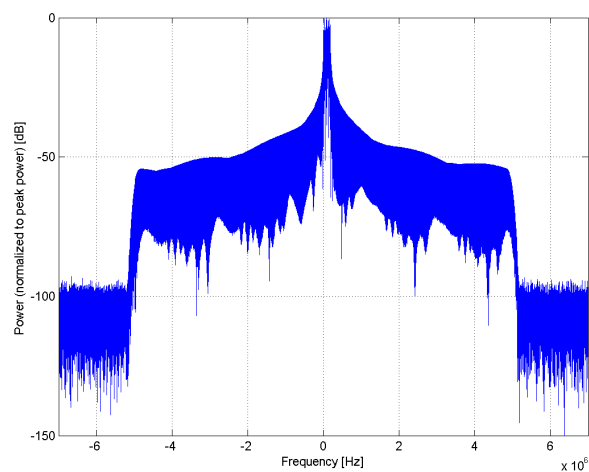

Frequency Domain

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-CAB

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, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 25
	Data Type: PN9fix
Bandwidth:	10.0 MHz
Integration Time:	10.0 ms

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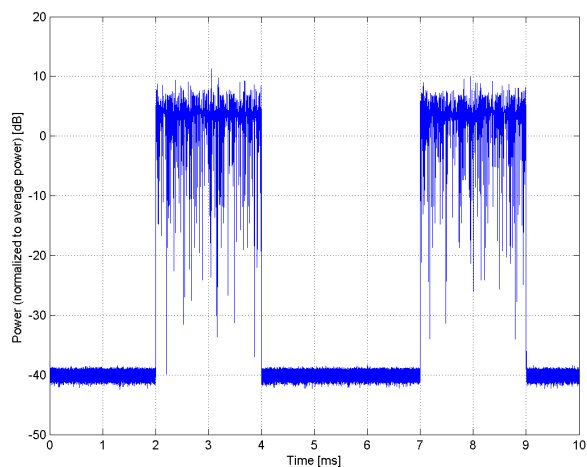
[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
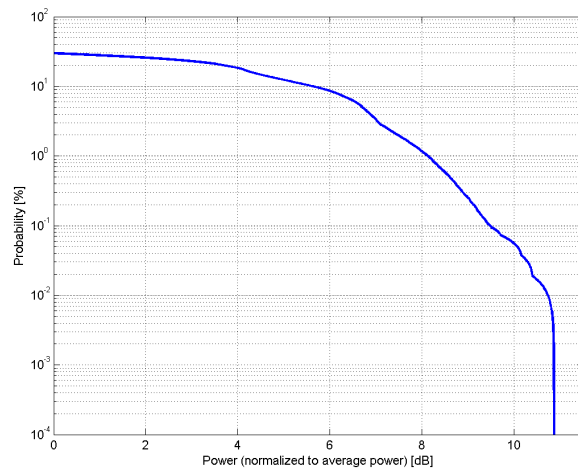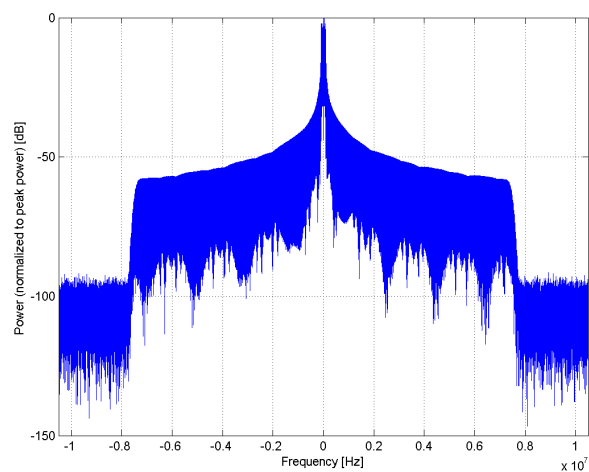

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)**

Group:	LTE-TDD
UID:	10238-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 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 37
	Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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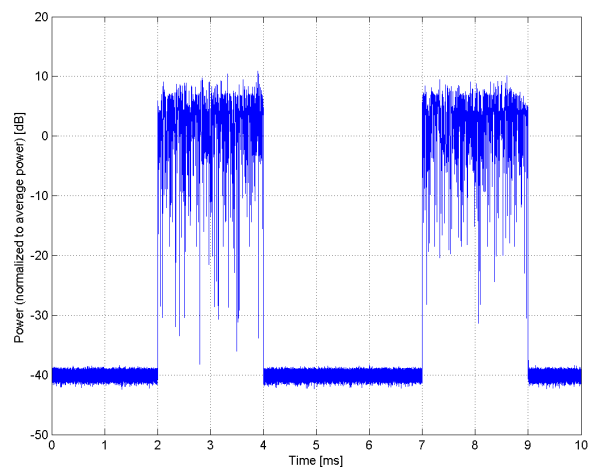[2] Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
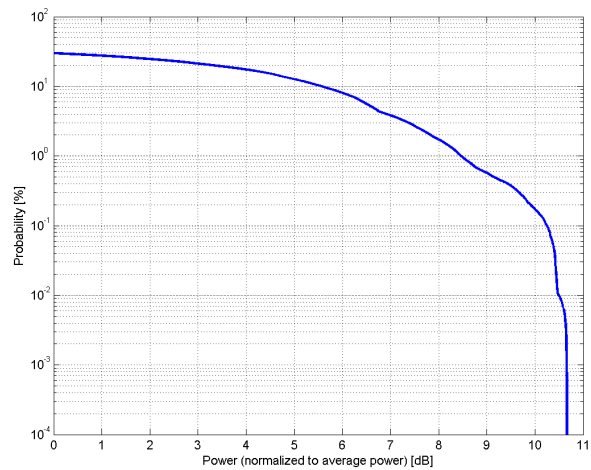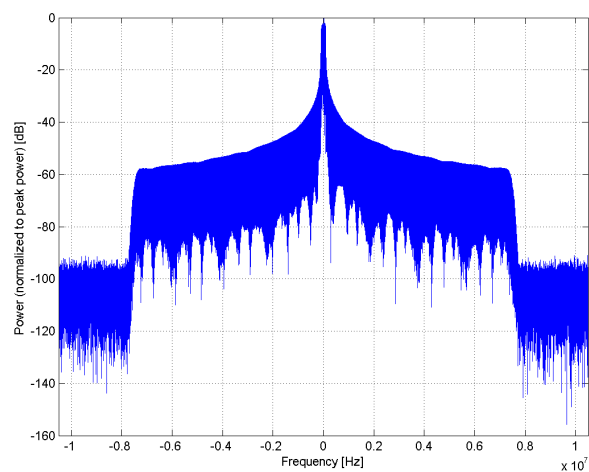

Frequency Domain

Time Domain

Calibration Laboratory of

Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Name:	**LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)**

Group:	LTE-TDD
UID:	10239-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 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 37
	Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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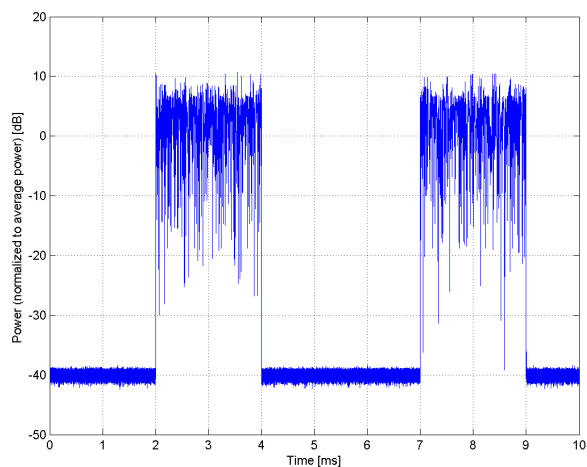[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)
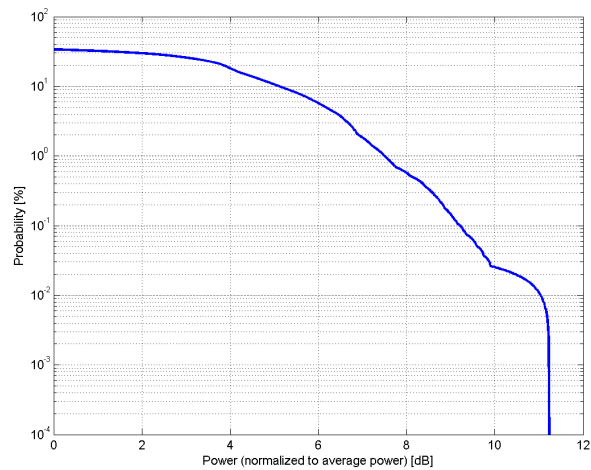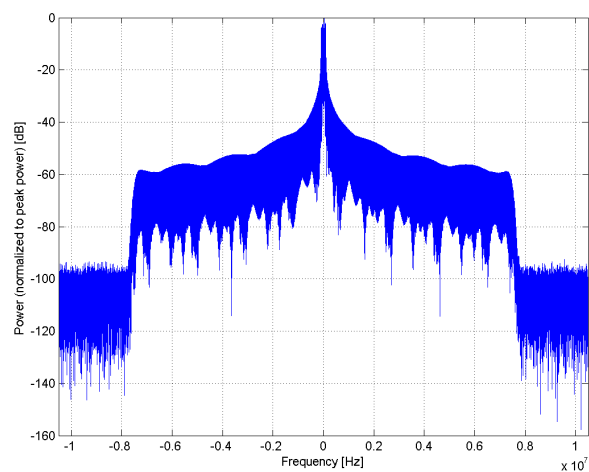

Frequency Domain

Time Domain

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

Name:	**LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)**

Group:	LTE-TDD
UID:	10240-CAB

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, 20148)
	Band 34, E-UTRA/TDD (2010.0-2025.0 MHz, 20149)
	Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)
	Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)
	Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)
	Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)
	Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)
	Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)
	Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)
	Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)
	Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)
	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: 37
	Data Type: PN9fix
Bandwidth:	15.0 MHz
Integration Time:	10.0 ms

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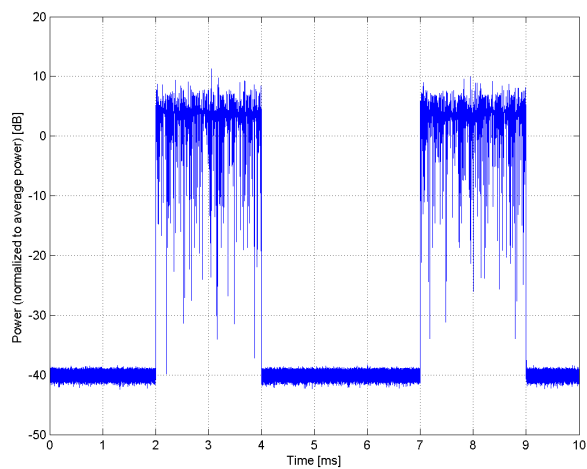[2]   Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).

Complementary Cumulative Distribution Function (CCDF)

Frequency Domain

Time Domain