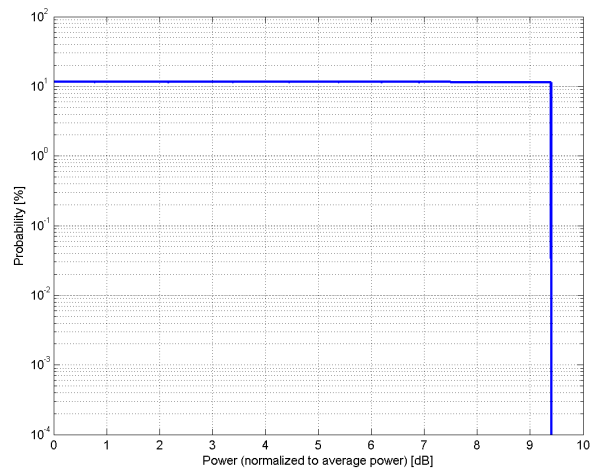


**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
 Zeughausstrasse 43, 8004 Zurich, Switzerland

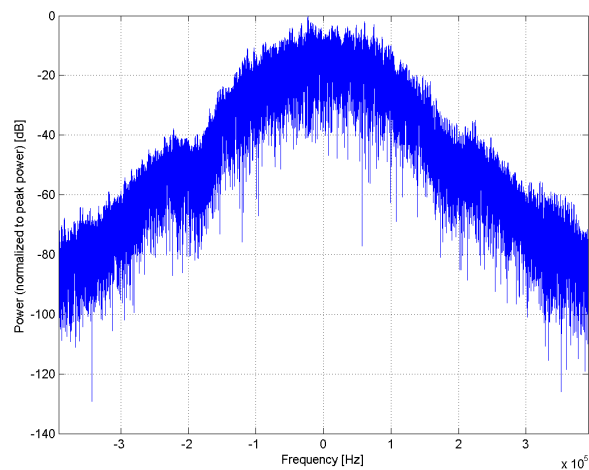
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>GSM-FDD (TDMA, GMSK)</b>                                                                                                                                                                                                                                                                                                                                                                                             |
| Group:                  | GSM                                                                                                                                                                                                                                                                                                                                                                                                                     |
| UID:                    | 10021-DAB                                                                                                                                                                                                                                                                                                                                                                                                               |
| PAR: <sup>1</sup>       | <b>9.39 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                          |
| MIF: <sup>2</sup>       | <b>3.63 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                          |
| Standard Reference:     | ETSI TS 100 909 V8.9.0 (2005-01)<br>FCC OET KDB 941225, D03 and D04                                                                                                                                                                                                                                                                                                                                                     |
| Category:               | Periodic pulsed modulation                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | GMSK                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Frequency Band:         | GSM 450 (450.4-457.6 MHz, 20016)<br>GSM 480 (478.8-486.0 MHz, 20017)<br>GSM 710 (698.0-716.0 MHz, 20018)<br>GSM 750 (747.0-763.0 MHz, 20019)<br>GSM 850 (824.0-849.0 MHz, 20021)<br>P-GSM 900 (890.0-915.0 MHz, 20022)<br>E-GSM 900 (880.0-915.0 MHz, 20023)<br>R-GSM 900 (876.0-915.0 MHz, 20024)<br>DCS 1800 (1710.0-1785.0 MHz, 20026)<br>PCS 1900 (1850.0-1910.0 MHz, 20027)<br>ER-GSM 900 (873.0-915.0 MHz, 20221) |
| Detailed Specification: | Active Slot: TN0<br>Data: PN9 continuous<br>Frame: composed out of 8 Slots<br>Multiframe: 26th (IDLE) Frame set blank<br>Slottype & -timing: Normal burst for GMSK                                                                                                                                                                                                                                                      |
| Bandwidth:              | 0.4 MHz                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Integration Time:       | 120.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                |

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

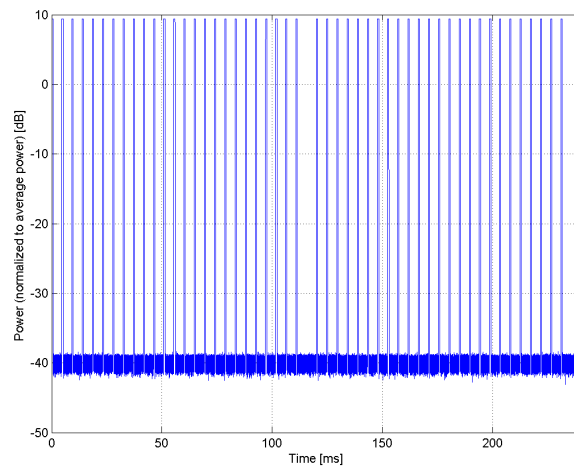
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



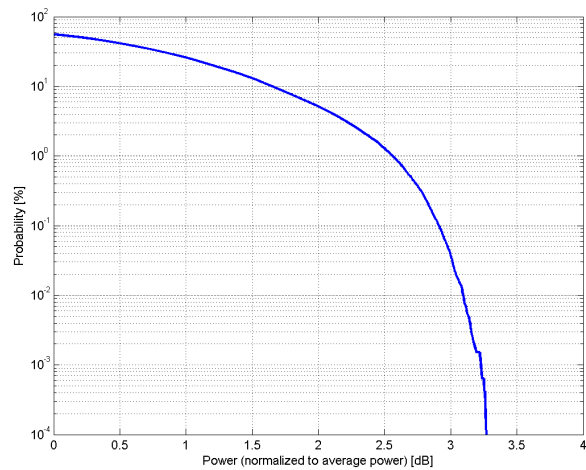
**Time Domain**

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

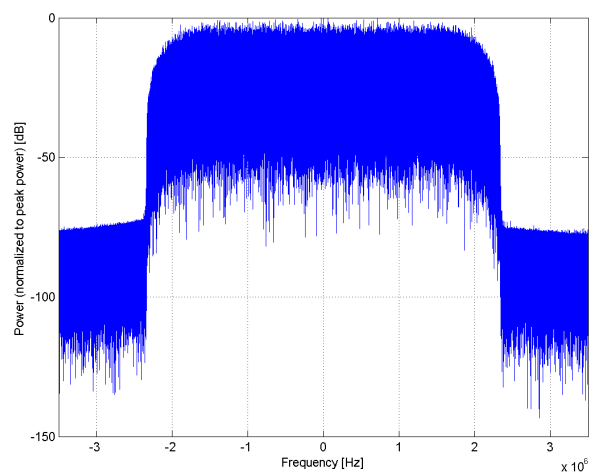
|                         |                                                                                                                                                                                                                                                                                 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

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

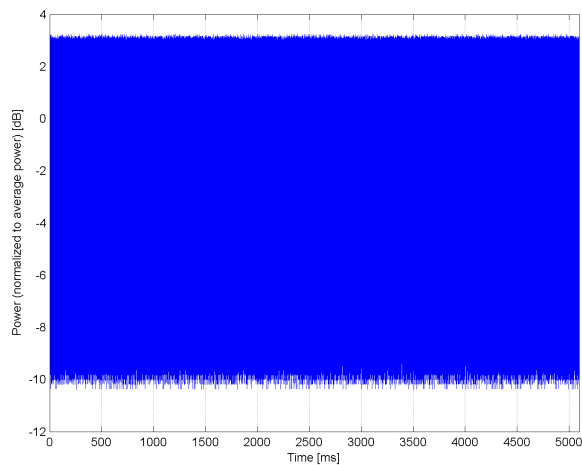
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



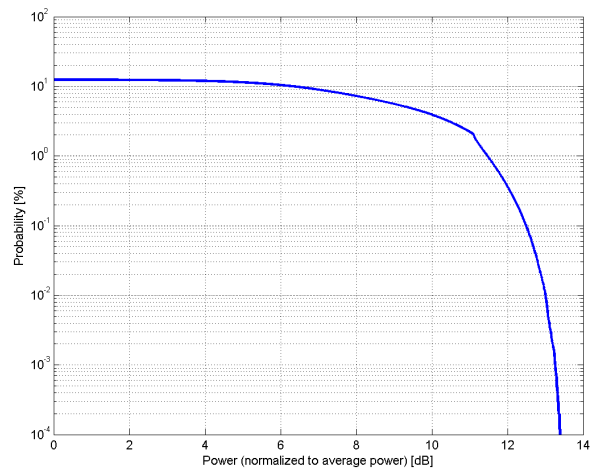
**Frequency Domain**



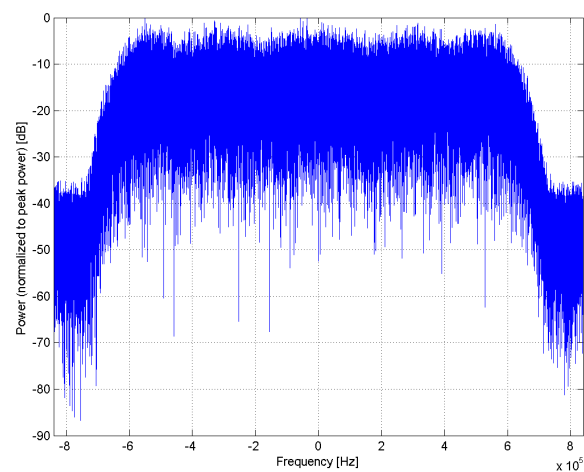
**Time Domain**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>CDMA2000, RC1, SO3, 1/8th Rate 25 fr.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Group:                  | CDMA2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UID:                    | 10295-AAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>12.49 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MIF: <sup>2</sup>       | <b>3.26 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Standard Reference:     | 3GPP2 C.S0002-C-1, Chapter 2.1.3.9.2.3<br>FCC OET KDB 941225 D01 SAR test for 3G devices (v02)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Category:               | Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Modulation:             | 64-ary orthogonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Frequency Band:         | Band Class 0 (815.0-849.0 MHz, 20220)<br>Band Class 1 (1850.0-1910.0 MHz, 20040)<br>Band Class 2 (872.0-915.0 MHz, 20041)<br>Band Class 3 (887.0-925.0 MHz, 20042)<br>Band Class 4 (1750.0-1780.0 MHz, 20043)<br>Band Class 5 (411.7-483.5 MHz, 20044)<br>Band Class 6 (1920.0-1980.0 MHz, 20045)<br>Band Class 7 (776.0-794.0 MHz, 20046)<br>Band Class 8 (1710.0-1785.0 MHz, 20047)<br>Band Class 9 (880.0-915.0 MHz, 20048)<br>Band Class 10 (806.0-901.0 MHz, 20049)<br>Band Class 11 (410.0-462.5 MHz, 20050)<br>Band Class 12 (870.0-876.0 MHz, 20051)<br>Band Class 13 (2500.0-2570.0 MHz, 20179)<br>Band Class 14 (1850.0-1915.0 MHz, 20180)<br>Band Class 15 (1710.0-1755.0 MHz, 20181)<br>Band Class 16 (2502.0-2568.0 MHz, 20182)<br>Band Class 18 (787.0-799.0 MHz, 20184)<br>Band Class 19 (698.0-716.0 MHz, 20185)<br>Band Class 20 (1626.5-1660.5 MHz, 20186)<br>Band Class 21 (2000.0-2020.0 MHz, 20187) |
| Detailed Specification: | Radio Configuration 1 (RC1)<br>Service Option 3 (SO3)<br>Speech codec: 8k EVRC (Enhanced Voice Rate Codec)<br>1/8th frame rate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Bandwidth:              | 1.2 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 500.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

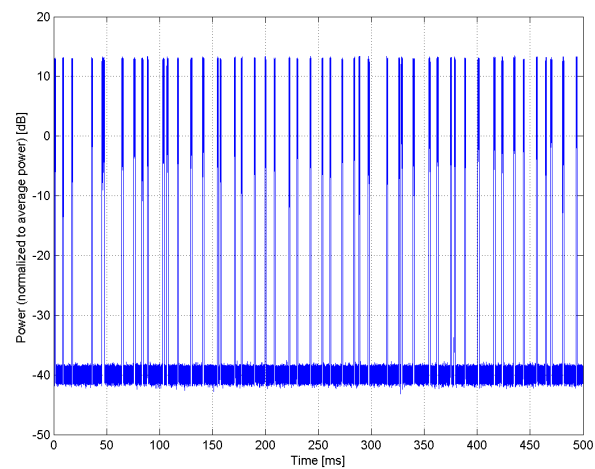
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same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



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**

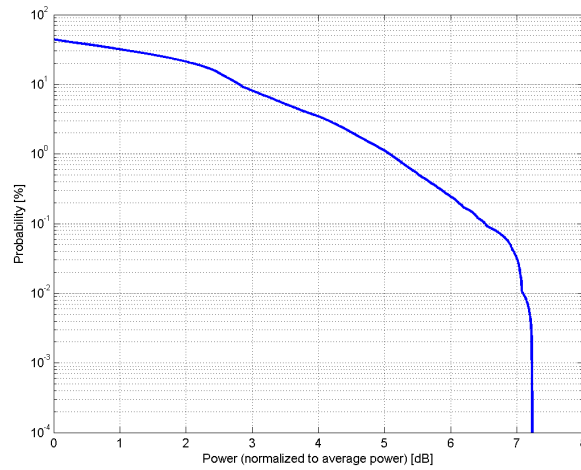


**Time Domain**

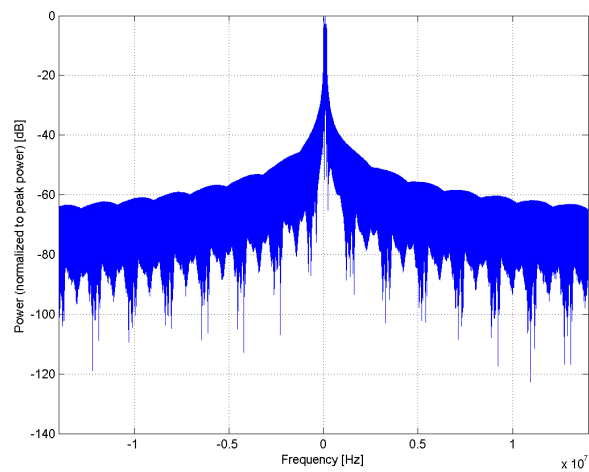
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| UID:                    | 10170-CAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| PAR: <sup>1</sup>       | <b>6.52 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| MIF: <sup>2</sup>       | <b>-9.76 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Category:               | 16-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Modulation:             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Frequency Band:         | Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)<br>Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)<br>Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)<br>Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)<br>Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)<br>Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)<br>Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)<br>Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)<br>Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)<br>Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)<br>Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)<br>Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe #0 to #9:<br>Modulation Scheme: 16QAM<br>Data Type: UL-SCH<br>Number RB: 1<br>Transport Block Size: 256<br>TBS Index: 14<br>MCS Index: 15<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                    |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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

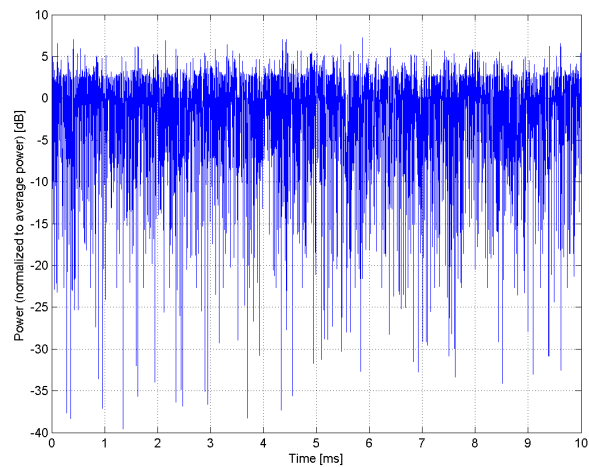
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



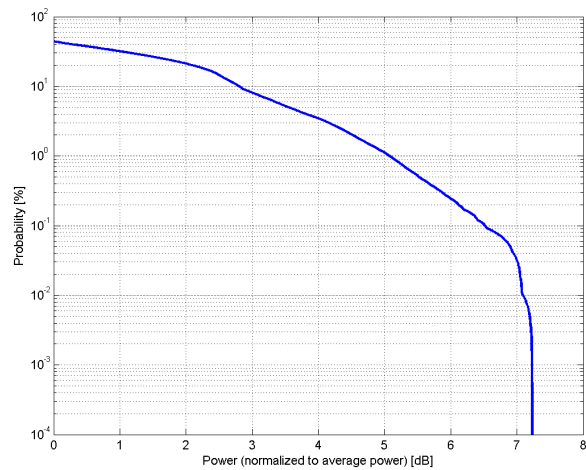
**Time Domain**

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

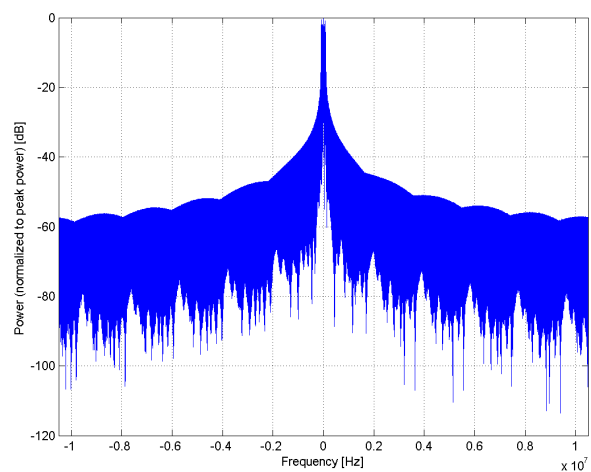
|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Group:                  | LTE-FDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| UID:                    | 10182-CAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PAR: <sup>1</sup>       | <b>6.52 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| MIF: <sup>2</sup>       | <b>-9.76 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v01<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Category:               | 16-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Modulation:             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Frequency Band:         | Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)<br>Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)<br>Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)<br>Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)<br>Band 7, E-UTRA/FDD (2500.0-2570.0 MHz, 20139)<br>Band 9, E-UTRA/FDD (1749.9-1784.9 MHz, 20141)<br>Band 10, E-UTRA/FDD (1710.0-1770.0 MHz, 20142)<br>Band 18, E-UTRA/FDD (815.0-830.0 MHz, 20157)<br>Band 19, E-UTRA/FDD (830.0-845.0 MHz, 20158)<br>Band 20, E-UTRA/FDD (832.0-862.0 MHz, 20159)<br>Band 21, E-UTRA/FDD (1447.9-1462.9 MHz, 20160)<br>Band 22, E-UTRA/FDD (3410.0-3490.0 MHz, 20190)<br>Band 23, E-UTRA/FDD (2000.0-2020.0 MHz, 20164)<br>Band 25, E-UTRA/FDD (1850.0-1915.0 MHz, 20166)<br>Band 26 E-UTRA/FDD (814.0-849.0 MHz, 20211)<br>Band 28 E-UTRA/FDD (703.0-748.0 MHz, 20213) |
| Detailed Specification: | Modulation Scheme: SC-FDMA<br>Number of PUSCHs: 1<br>Settings for Subframe # 0 to # 9:<br>Modulation Scheme: 16QAM<br>Data Type: UL-SCH<br>Number RB: 1<br>Transport Block Size: 256<br>TBS Index: 14<br>MCS Index: 15<br>Data Type: PN9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Bandwidth:              | 15.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Integration Time:       | 10.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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

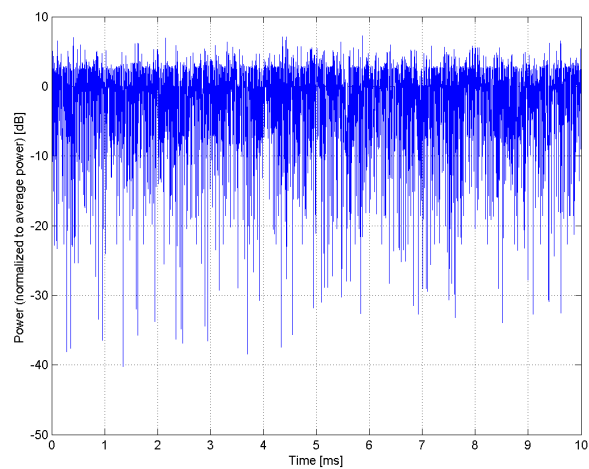
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



**Time Domain**

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

Group: LTE-FDD  
 UID: 10176-CAB

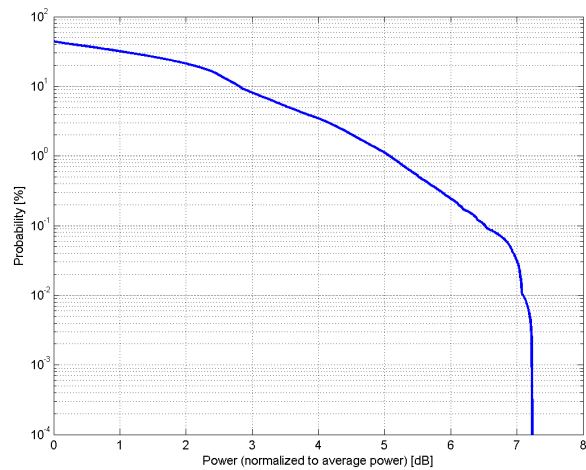
PAR: <sup>1</sup> **6.52 dB**  
 MIF: <sup>2</sup> **-9.76 dB**

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:

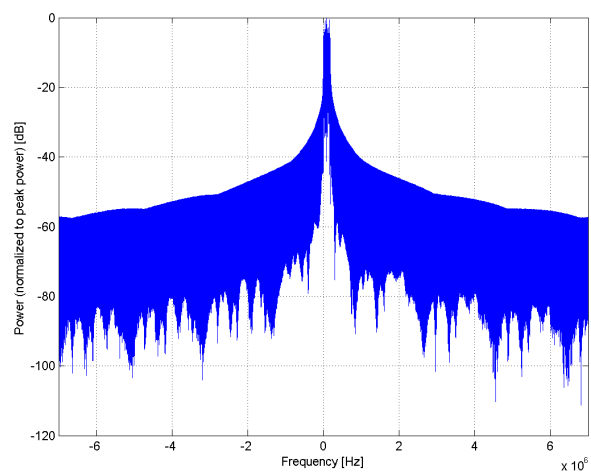
Band 1, E-UTRA/FDD (1920.0-1980.0 MHz, 20133)  
 Band 2, E-UTRA/FDD (1850.0-1910.0 MHz, 20134)  
 Band 3, E-UTRA/FDD (1710.0-1785.0 MHz, 20135)  
 Band 4, E-UTRA/FDD (1710.0-1755.0 MHz, 20136)  
 Band 5, E-UTRA/FDD (824.0-849.0 MHz, 20137)  
 Band 6, E-UTRA/FDD (830.0-840.0 MHz, 20138)  
 Band 7, E-UTRA/FDD (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

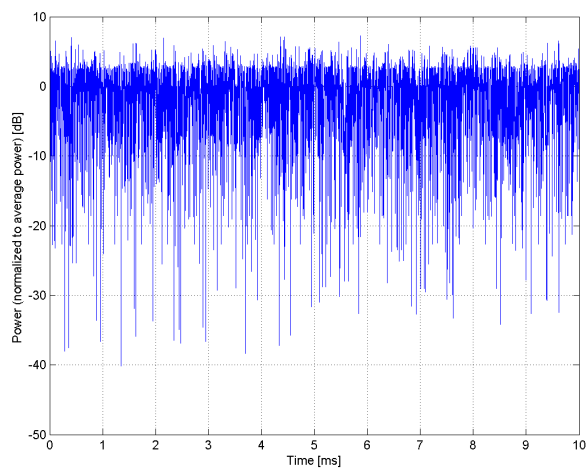
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same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



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**

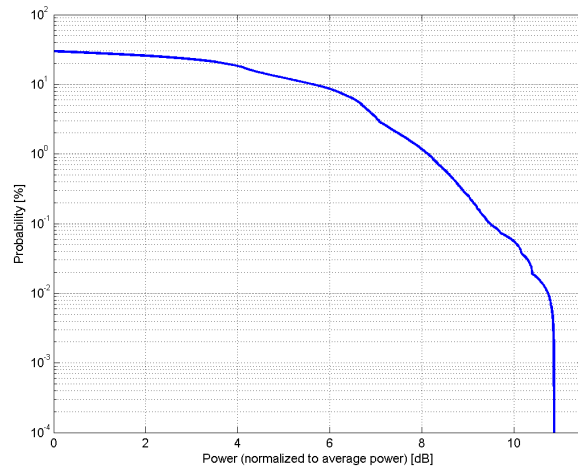


**Time Domain**

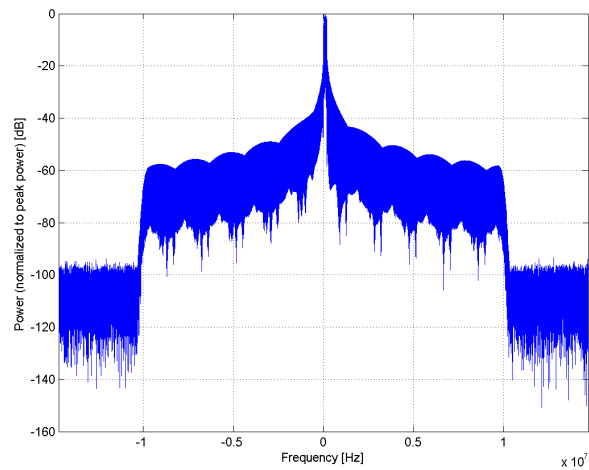
**Calibration Laboratory of**  
**Schmid & Partner**  
**Engineering AG**  
 Zeughausstrasse 43, 8004 Zurich, Switzerland

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Group:                  | LTE-TDD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| UID:                    | 10173-CAB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| PAR: <sup>1</sup>       | <b>9.48 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| MIF: <sup>2</sup>       | <b>-1.44 dB</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Standard Reference:     | 3GPP / ETSI TS 136.101 V8.4.0<br>3GPP / ETSI TS 136.213 V8.4.0<br>FCC OET KDB 941225 D05 SAR for LTE Devices v02<br>Random amplitude modulation                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Category:               | 16-QAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Modulation:             | Band 33, E-UTRA/TDD (1900.0-1920.0 MHz, 20148)<br>Band 35, E-UTRA/TDD (1850.0-1910.0 MHz, 20150)<br>Band 36, E-UTRA/TDD (1930.0-1990.0 MHz, 20151)<br>Band 37, E-UTRA/TDD (1910.0-1930.0 MHz, 20152)<br>Band 38, E-UTRA/TDD (2570.0-2620.0 MHz, 20153)<br>Band 39, E-UTRA/TDD (1880.0-1920.0 MHz, 20154)<br>Band 40, E-UTRA/TDD (2300.0-2400.0 MHz, 20155)<br>Band 41, E-UTRA/TDD (2496.0-2690.0 MHz, 20167)<br>Band 42, E-UTRA/TDD (3400.0-3600.0 MHz, 20168)<br>Band 43, E-UTRA/TDD (3600.0-3800.0 MHz, 20169)<br>Band 44, E-UTRA/TDD (703.0-803.0 MHz, 20214) |
| Frequency Band:         | Modulation Scheme: SC-FDMA<br>Uplink-downlink configuration: 1<br>Special Subframe configuration: 4<br>Number of Frames: 1<br>Settings for UL Subframe 2,3,7,8:<br>Number of PUSCHs: 1<br>Modulation Scheme: 16QAM<br>Allocated RB: 1<br>Start Number of RB: 50<br>Data Type: PN9fix                                                                                                                                                                                                                                                                             |
| Detailed Specification: | 20.0 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Bandwidth:              | 6.0 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Integration Time:       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

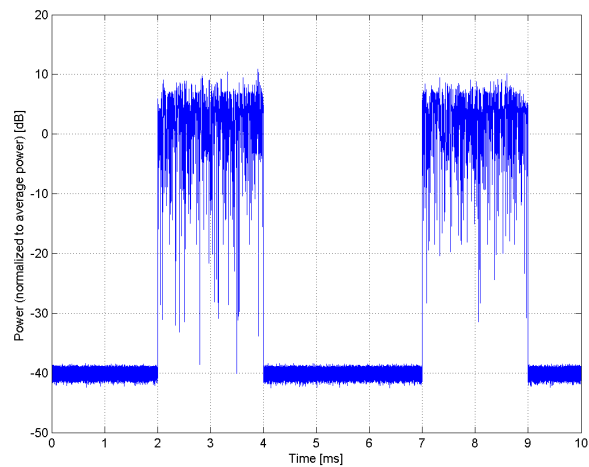
<sup>1</sup> PAR (0.1%) in accordance with FCC KDB 971168, Section 6.0 "Measurement of the Peak-to-Average Power Ratio (PAPR)"  
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same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



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



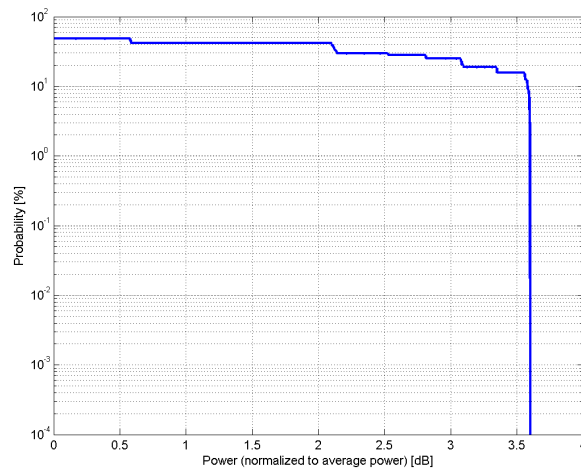
**Time Domain**

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

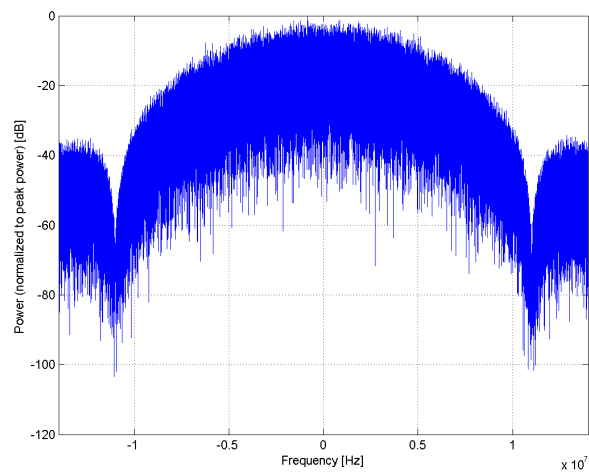
|                         |                                                                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)</b>                                                                                                                                  |
| Group:                  | WLAN                                                                                                                                                                              |
| UID:                    | 10061-CAA                                                                                                                                                                         |
| PAR: <sup>1</sup>       | <b>3.60 dB</b>                                                                                                                                                                    |
| MIF: <sup>2</sup>       | <b>-2.02 dB</b>                                                                                                                                                                   |
| Standard Reference:     | IEEE 802.11b-1999 , Part 11, FCC SAR meas for 802 11 a b g v01r02 (248227 D01)                                                                                                    |
| Category:               | Random amplitude modulation                                                                                                                                                       |
| Modulation:             | DQPSK                                                                                                                                                                             |
| Frequency Band:         | ISM 2.4 GHz Band, World but Japan (2401.5-2482.5 MHz, 20028)                                                                                                                      |
| Detailed Specification: | ISM 2.4 GHz-Band, Japan (2472.5-2495.5 MHz, 20030)<br>Data Rate: 11 Mbps<br>Spreading, Coding: CCK<br>PPDU format: Long Preamble & Heading<br>PSDU Length: 1024<br>PSDU Data: PN9 |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                          |
| Integration Time:       | 1.5 ms                                                                                                                                                                            |

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

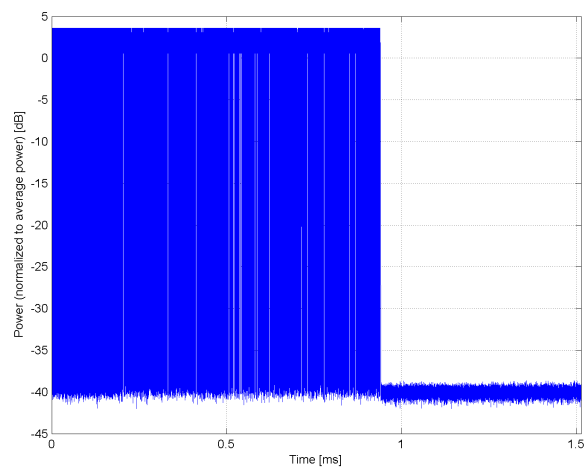
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



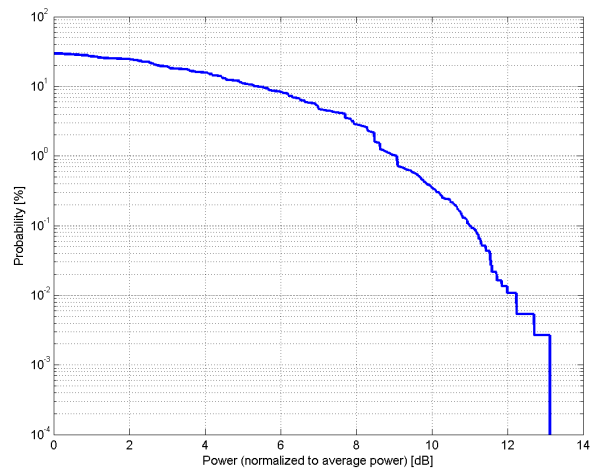
**Time Domain**

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

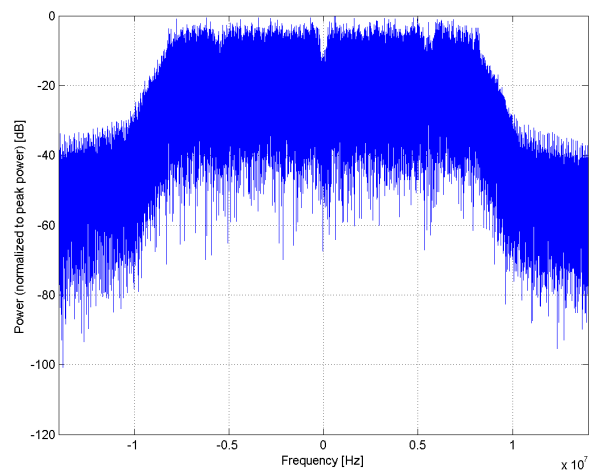
|                         |                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)</b>                                                                                                                                    |
| Group:                  | WLAN                                                                                                                                                                                     |
| UID:                    | 10077-CAA                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>11.00 dB</b>                                                                                                                                                                          |
| MIF: <sup>2</sup>       | <b>0.12 dB</b>                                                                                                                                                                           |
| Standard Reference:     | IEEE 802.11g-2003 , Part 11<br>FCC SAR meas for 802 11 a b g v01r02 (248227 D01)                                                                                                         |
| Category:               | Random amplitude modulation                                                                                                                                                              |
| Modulation:             | 64-QAM                                                                                                                                                                                   |
| Frequency Band:         | ISM 2.4 GHz Band, World but Japan (2401.5-2482.5 MHz,<br>20028)<br>ISM 2.4 GHz-Band, Japan (2472.5-2495.5 MHz, 20030)                                                                    |
| Detailed Specification: | Data Rate: 54 Mbps<br>Coding Rate: 3/4<br>Coded bits per subcarrier: 6<br>Coded bits per OFDM symbol: 288<br>Data bits per OFDM symbol: 216<br>PSDU Length: 1000 Bytes<br>PSDU Data: PN9 |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                 |
| Integration Time:       | 0.9 ms                                                                                                                                                                                   |

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

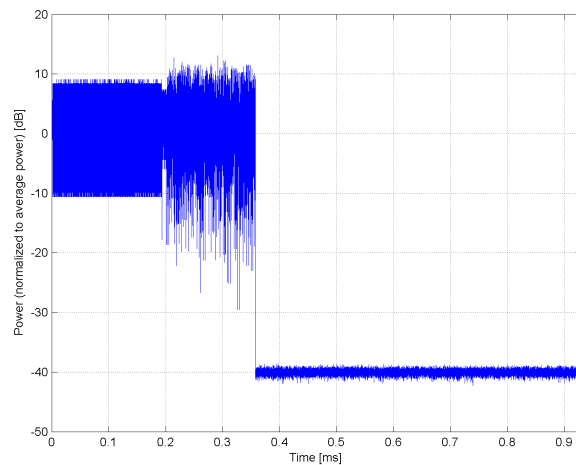
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



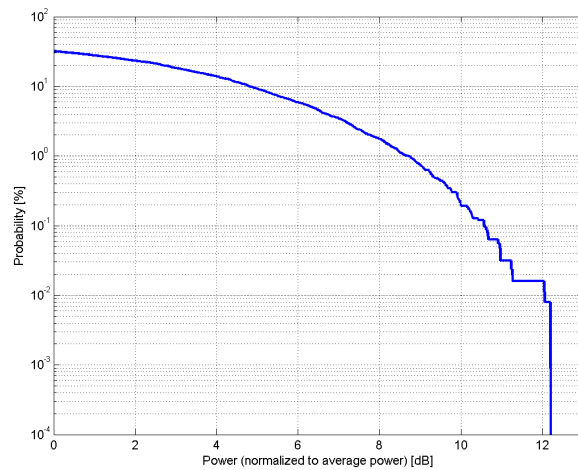
**Time Domain**

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

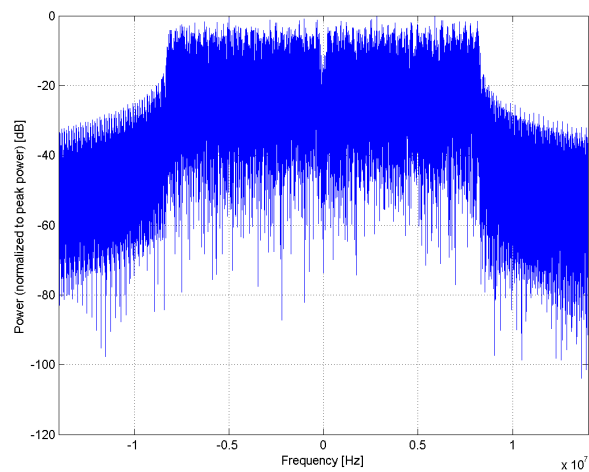
|                         |                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                   | <b>IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)</b>                                                                                                                                         |
| Group:                  | WLAN                                                                                                                                                                                     |
| UID:                    | 10069-CAA                                                                                                                                                                                |
| PAR: <sup>1</sup>       | <b>10.56 dB</b>                                                                                                                                                                          |
| MIF: <sup>2</sup>       | <b>-3.15 dB</b>                                                                                                                                                                          |
| Standard Reference:     | IEEE 802.11a-1999 (R2003) , Part 11<br>IEEE 802.11h-2003 , Part 11<br>FCC SAR meas for 802 11 a b g v01r02 (248227 D01)                                                                  |
| Category:               | Random amplitude modulation                                                                                                                                                              |
| Modulation:             | 64-QAM                                                                                                                                                                                   |
| Frequency Band:         | 5 GHz Band (5030.0-5825.0 MHz, 20053)                                                                                                                                                    |
| Detailed Specification: | Data Rate: 54 Mbps<br>Coding Rate: 3/4<br>Coded bits per subcarrier: 6<br>Coded bits per OFDM symbol: 288<br>Data bits per OFDM symbol: 216<br>PSDU Length: 1000 Bytes<br>PSDU Data: PN9 |
| Bandwidth:              | 20.0 MHz                                                                                                                                                                                 |
| Integration Time:       | 0.3 ms                                                                                                                                                                                   |

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

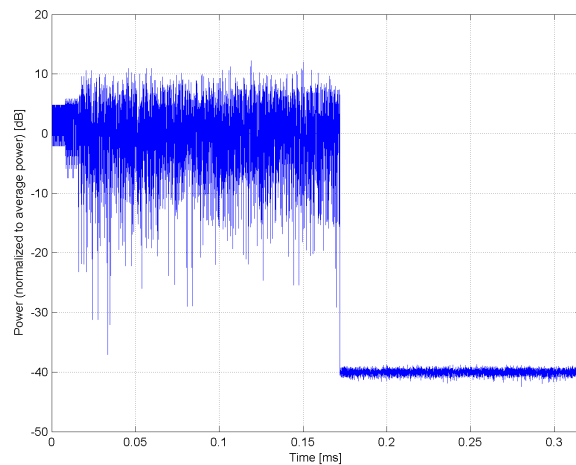
<sup>2</sup> Modulation Interference Factor (MIF) value valid only in conjunction with advanced probe response linearization calibration for the same communication system (same UID and version).



**Complementary Cumulative Distribution Function (CCDF)**



**Frequency Domain**



**Time Domain**