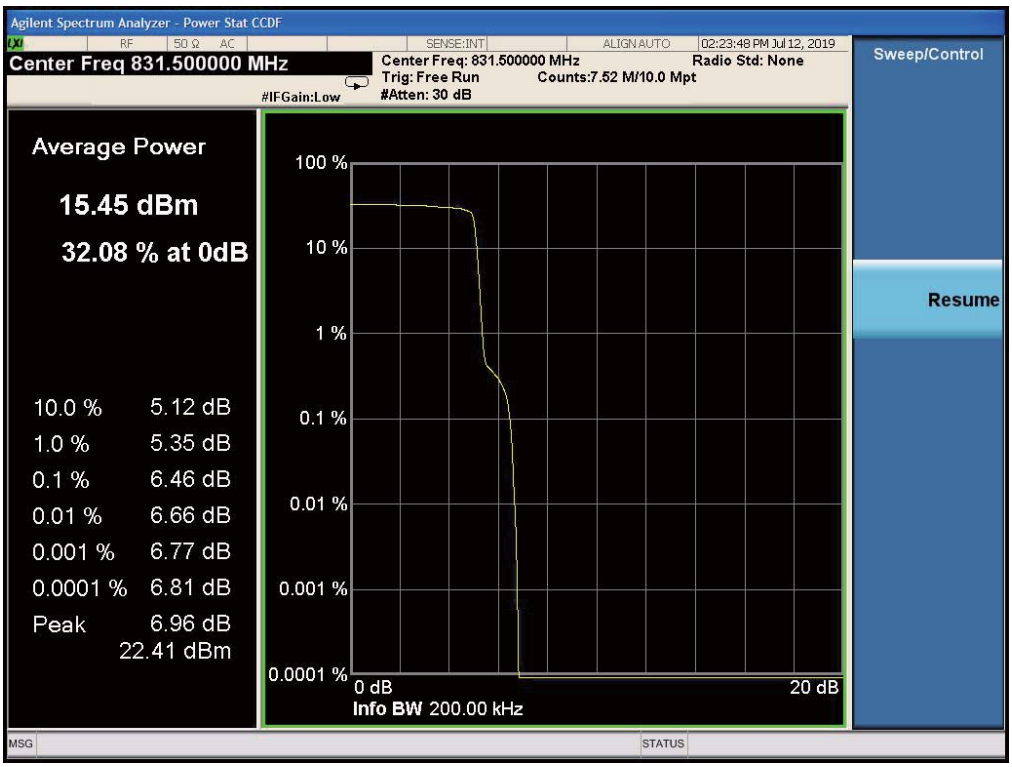
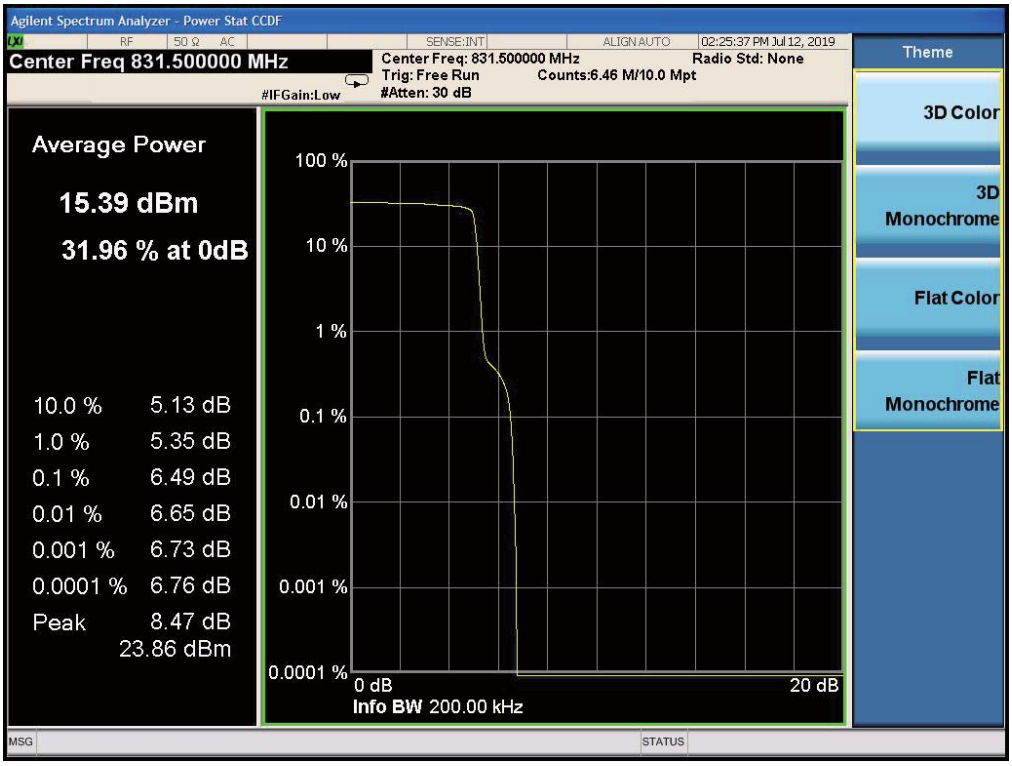
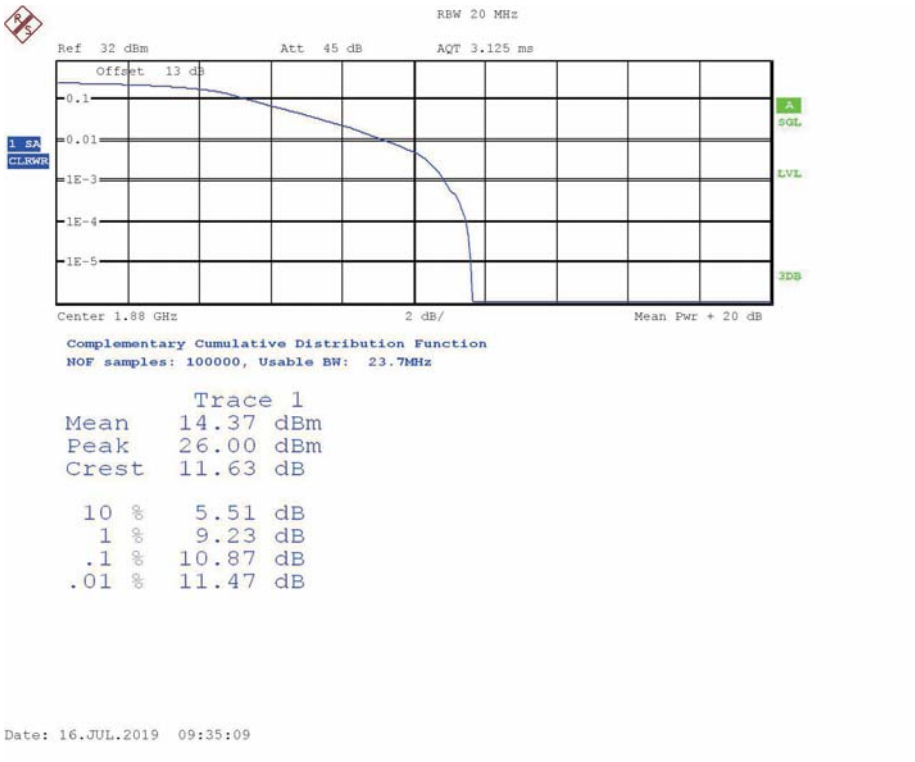


Band26-CH26865-831.5MHz-QPSK

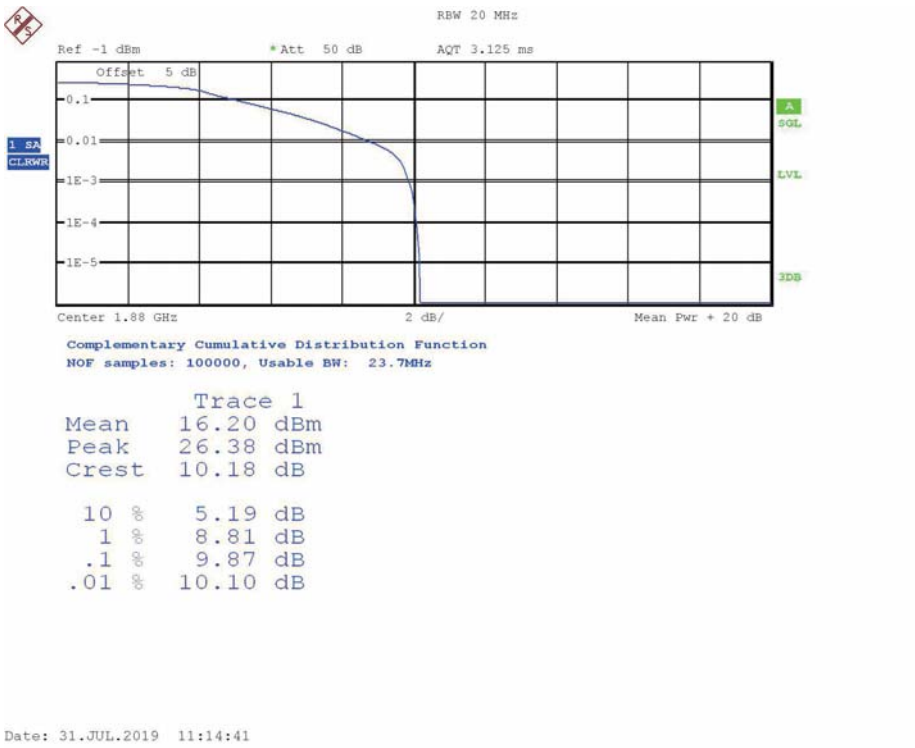


Band26-CH26865-831.5MHz-BPSK

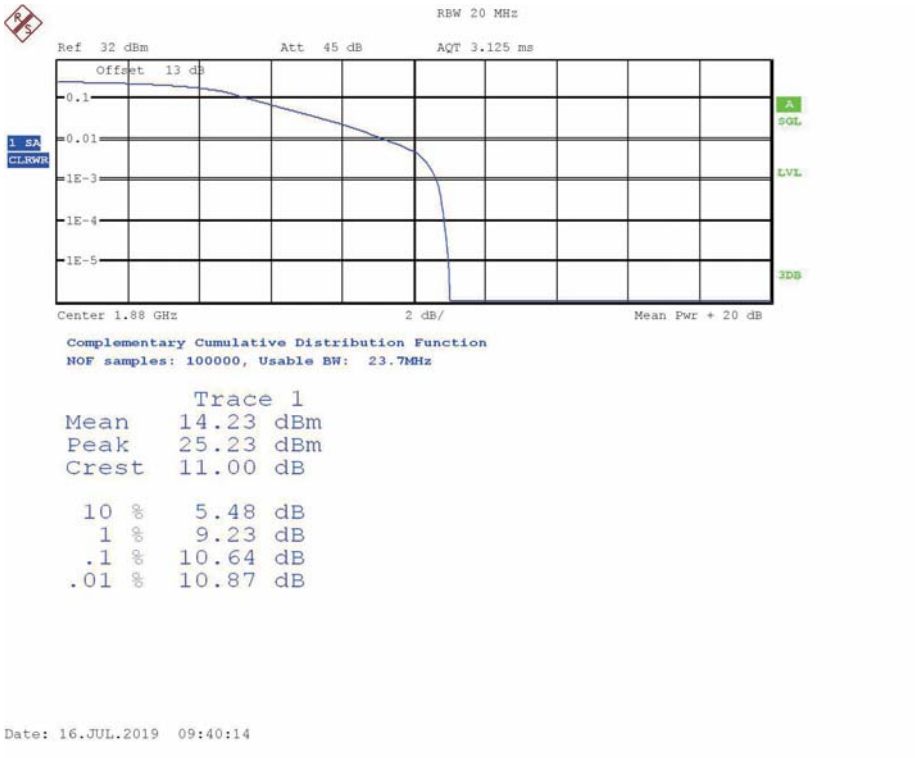
Graphical for Peak to Average Ratio Results for CAT-M:



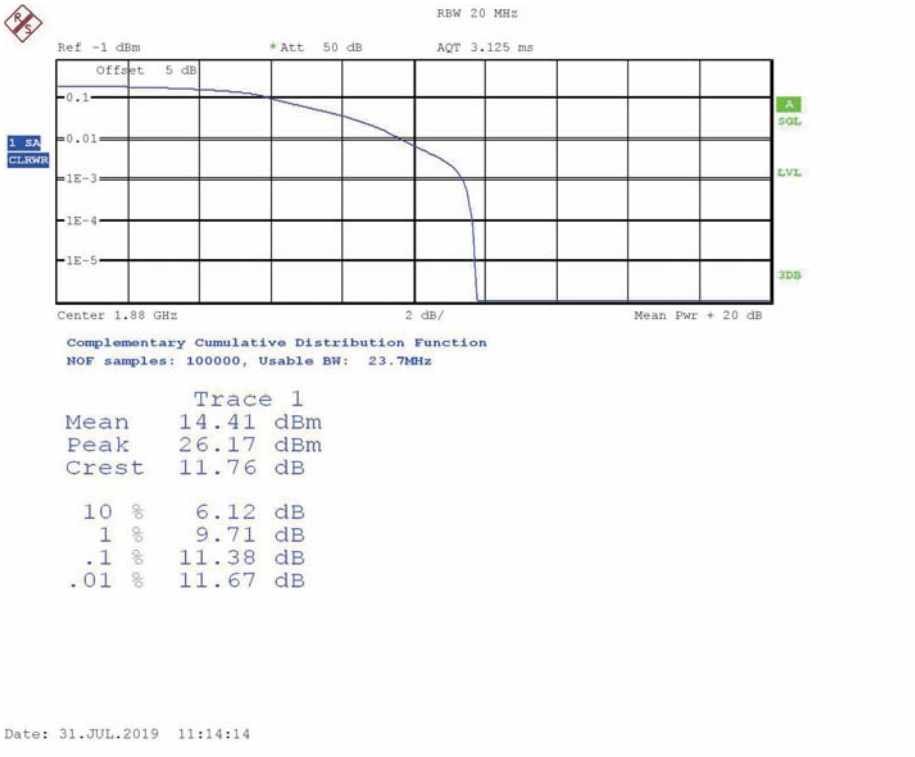
Band2-CH18900-1880MHz-1.4MHz Bandwidth-QPSK



Band2-CH18900-1880MHz-1.4MHz Bandwidth-16QAM



Band2-CH18900-1880MHz-3MHz Bandwidth-QPSK



Band2-CH18900-1880MHz-3MHz Bandwidth-16QAM

Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	15.05 dBm
Peak	26.00 dBm
Crest	10.95 dB
10 %	5.48 dB
1 %	9.39 dB
.1 %	10.54 dB
.01 %	10.80 dB

Date: 16.JUL.2019 09:28:49

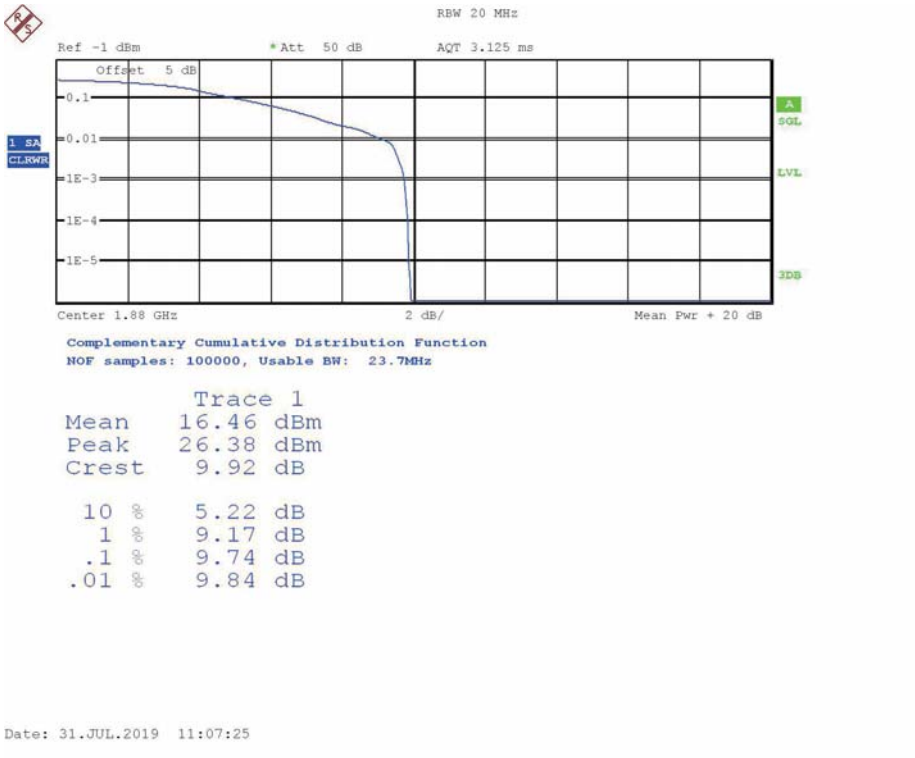
Band2-CH18900-1880MHz-5MHz Bandwidth-QPSK

Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

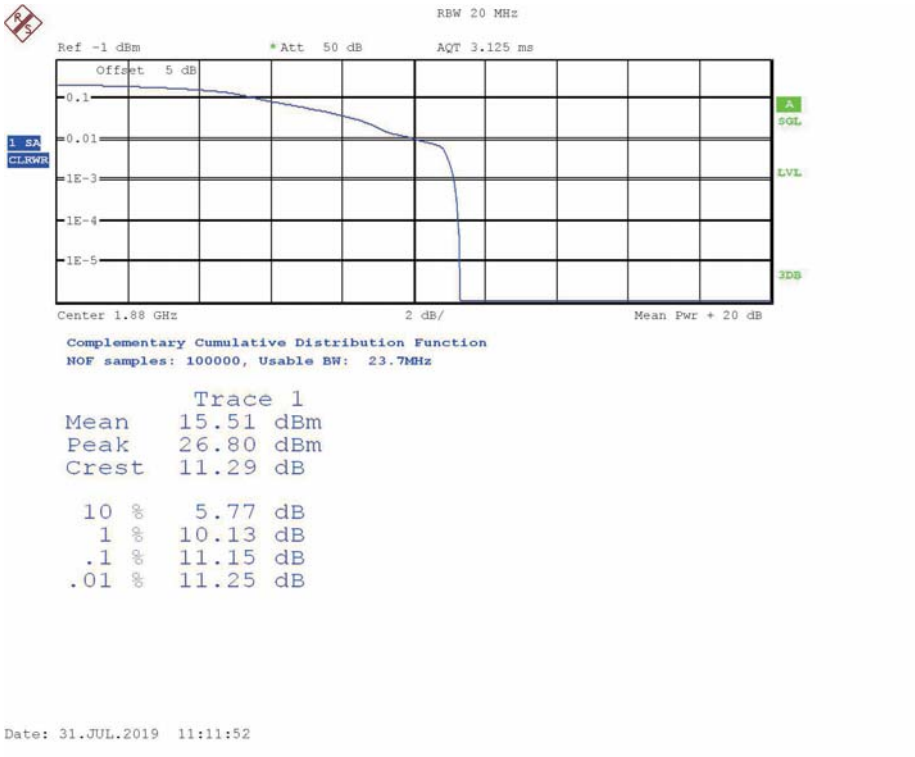
	Trace 1
Mean	18.43 dBm
Peak	27.01 dBm
Crest	8.58 dB
10 %	3.69 dB
1 %	6.54 dB
.1 %	7.18 dB
.01 %	7.50 dB

Date: 31.JUL.2019 11:13:53

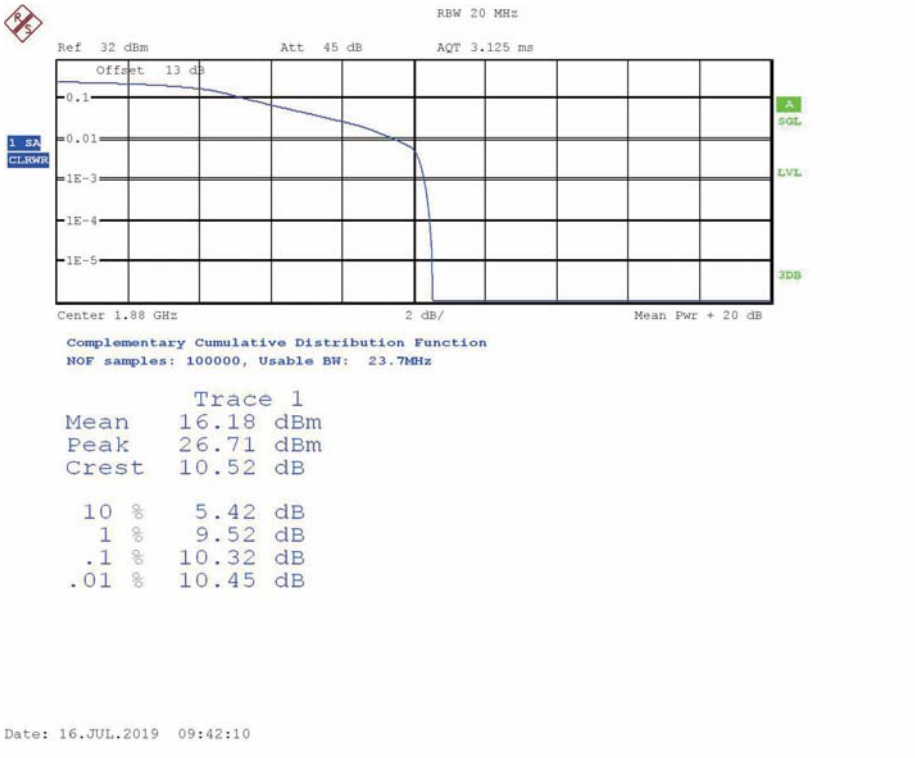
Band2-CH18900-1880MHz-5MHz Bandwidth-16QAM



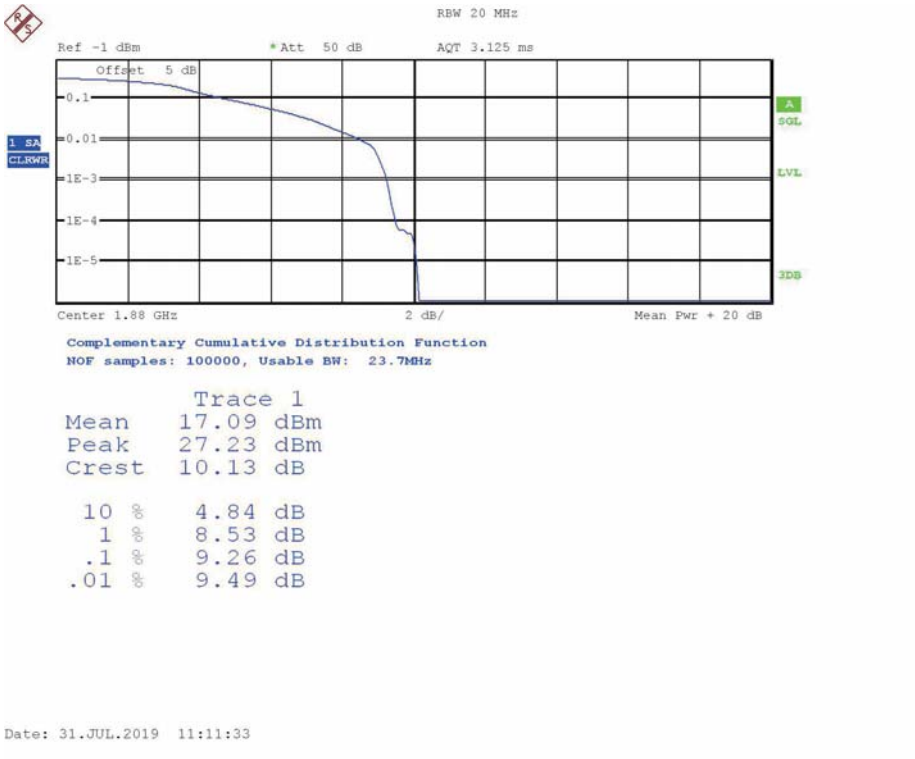
Band2-CH18900-1880MHz-10MHz Bandwidth-QPSK



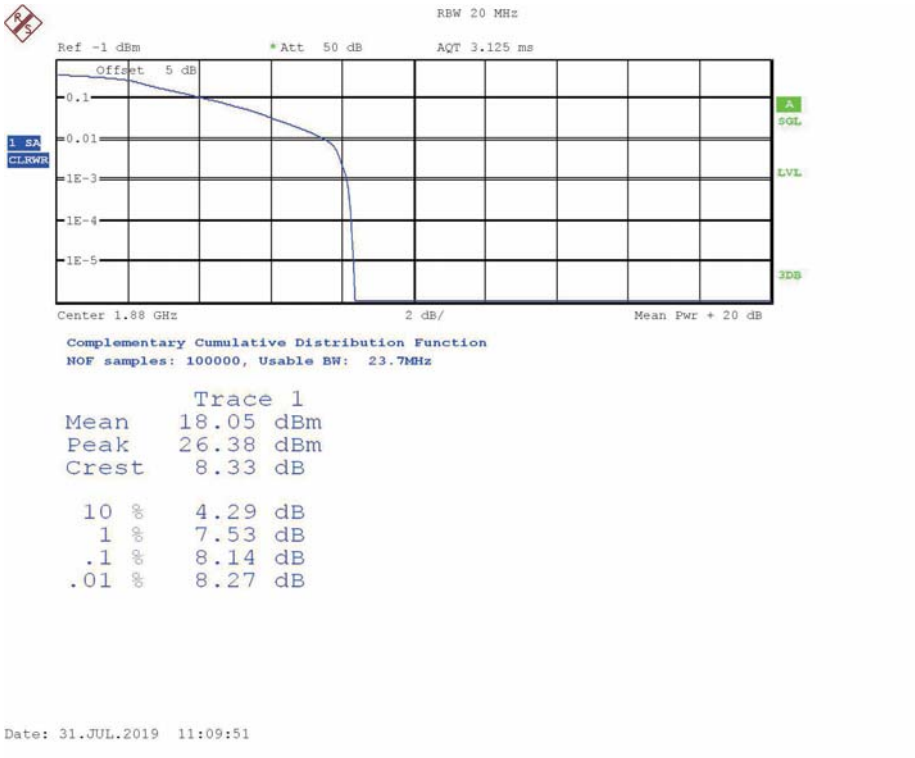
Band2-CH18900-1880MHz-10MHz Bandwidth-16QAM



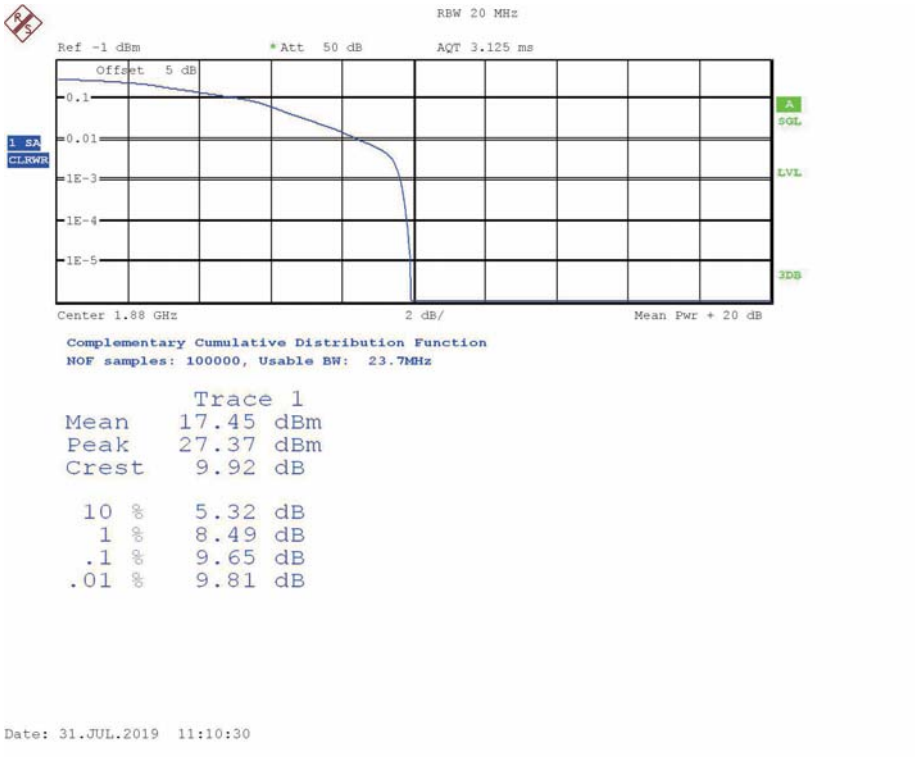
Band2-CH18900-1880MHz-15MHz Bandwidth-QPSK



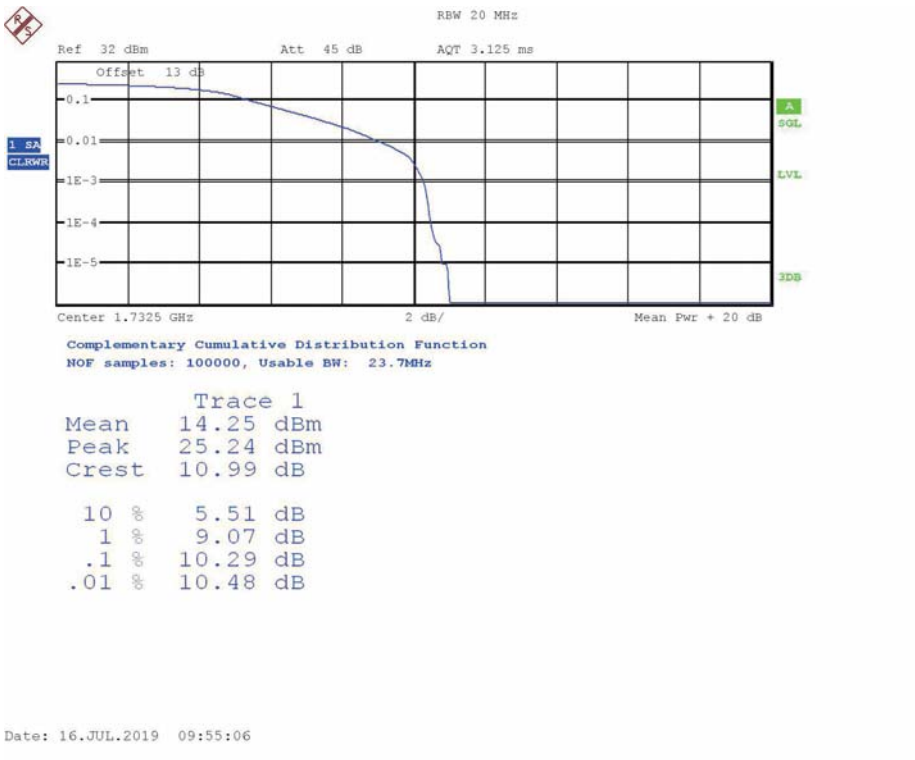
Band2-CH18900-1880MHz-15MHz Bandwidth-16QAM



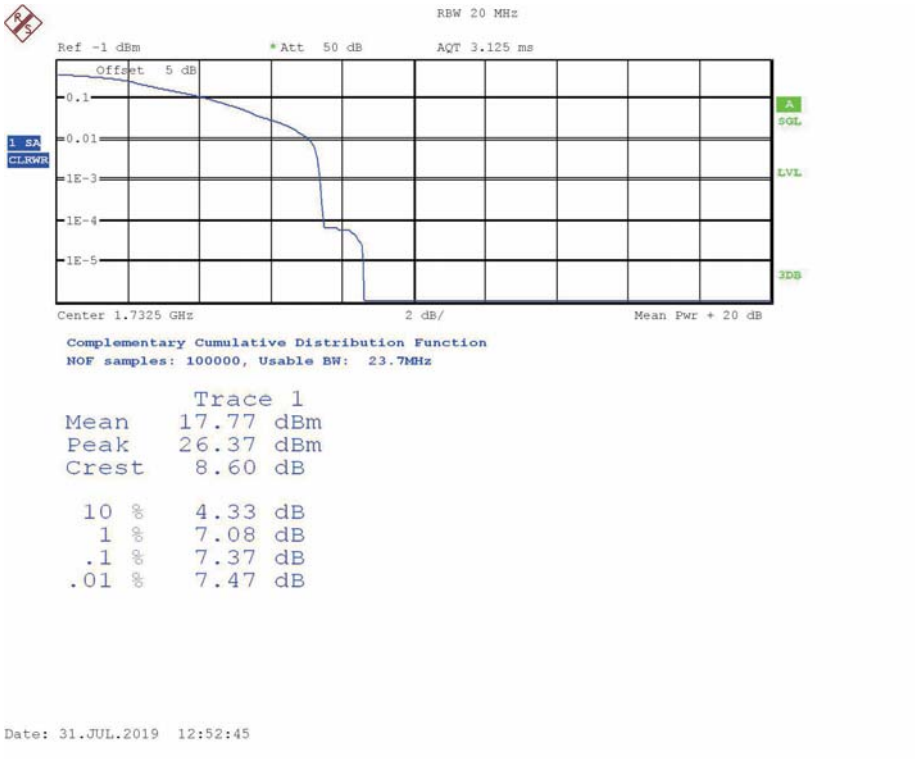
Band2-CH18900-1880MHz-20MHz Bandwidth-QPSK



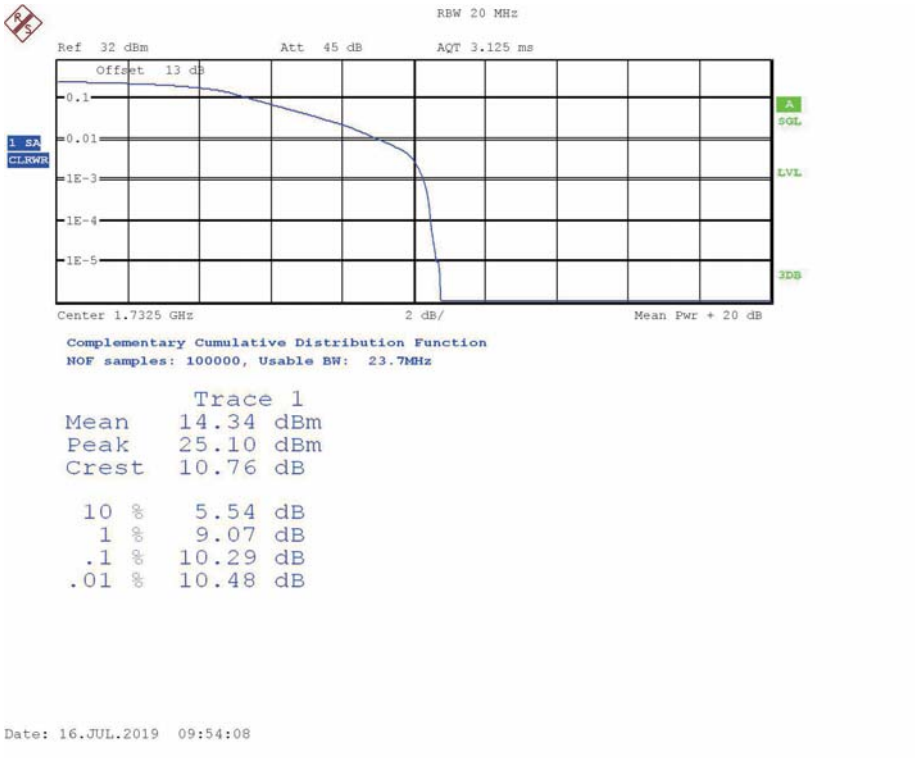
Band2-CH18900-1880MHz-20MHz Bandwidth-16QAM



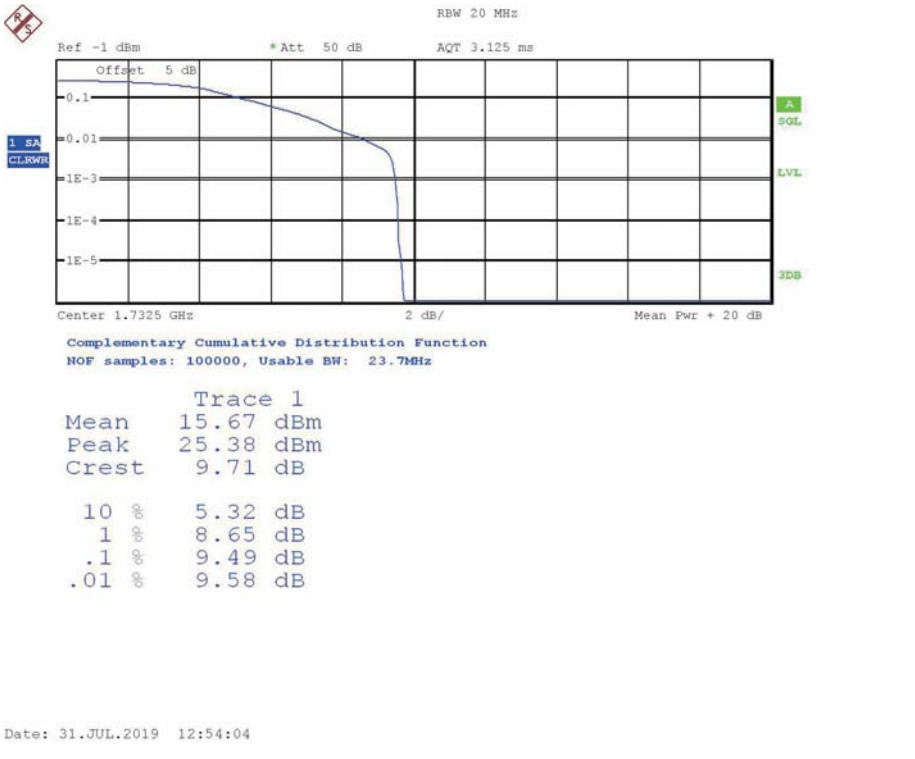
Band4-CH20175-707.5MHz -1.4MHz Bandwidth-QPSK



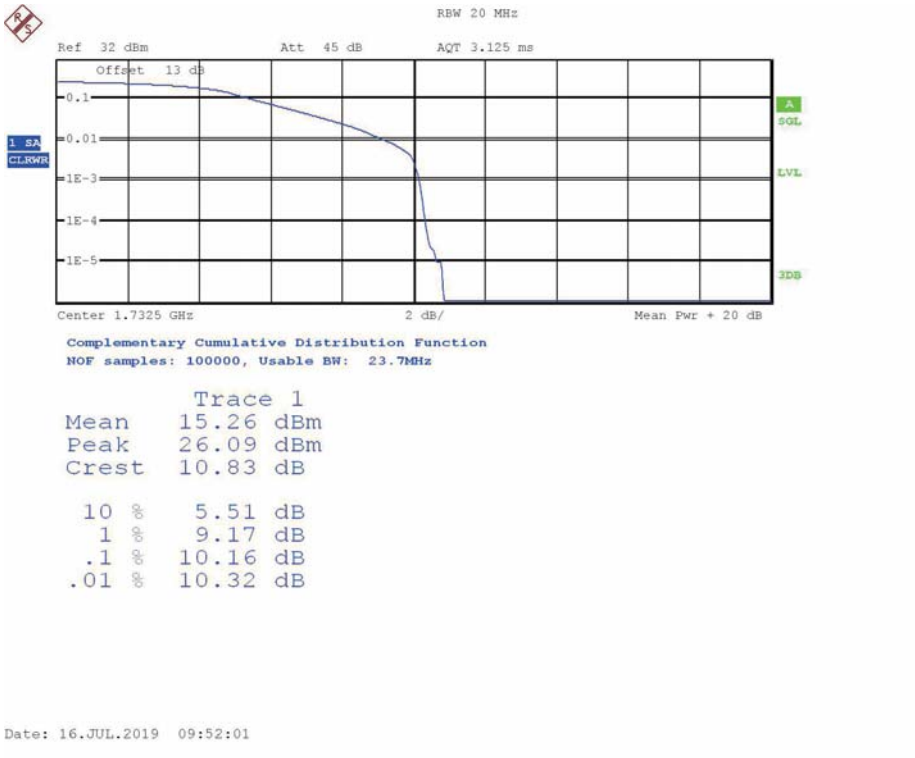
Band4-CH20175-707.5MHz -1.4MHz Bandwidth-16QAM



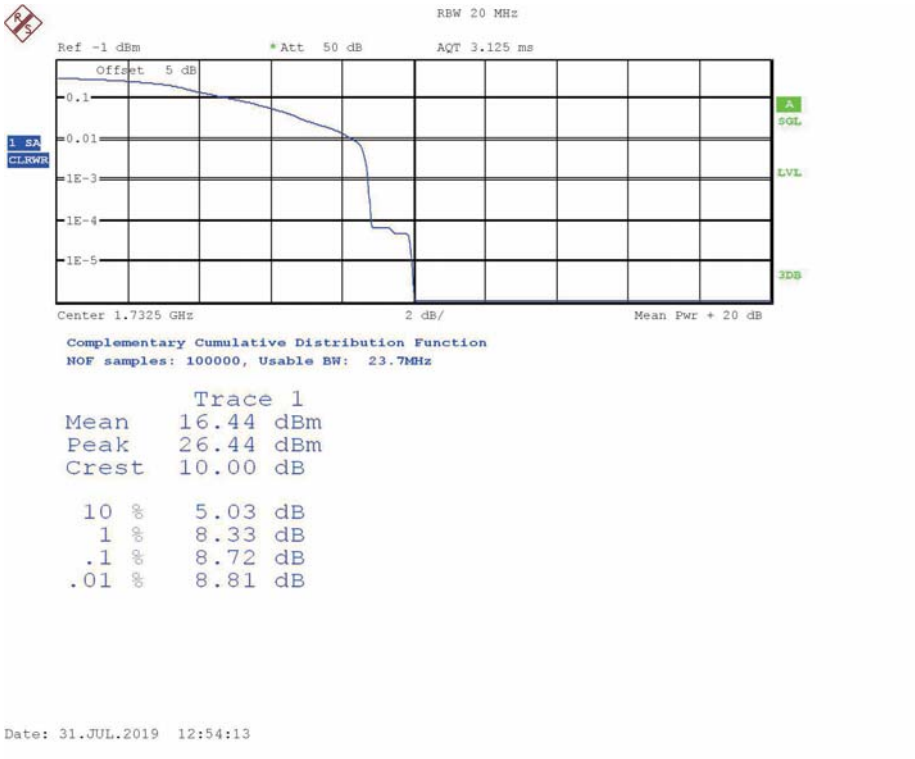
Band4-CH20175-707.5MHz -3MHz Bandwidth-QPSK



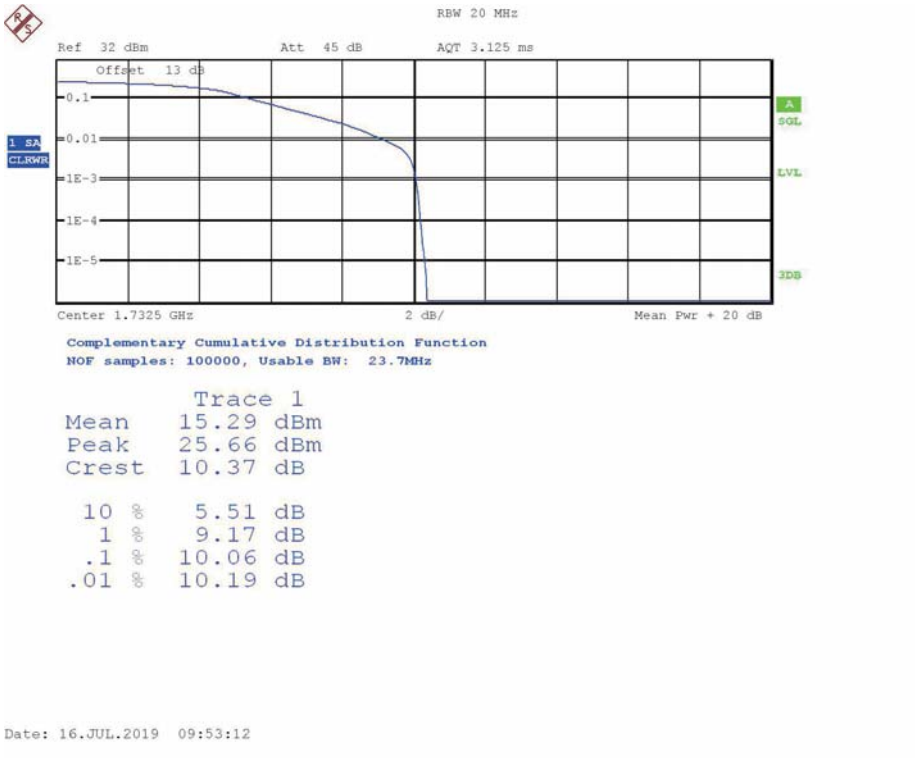
Band4-CH20175-707.5MHz -3MHz Bandwidth-16QAM



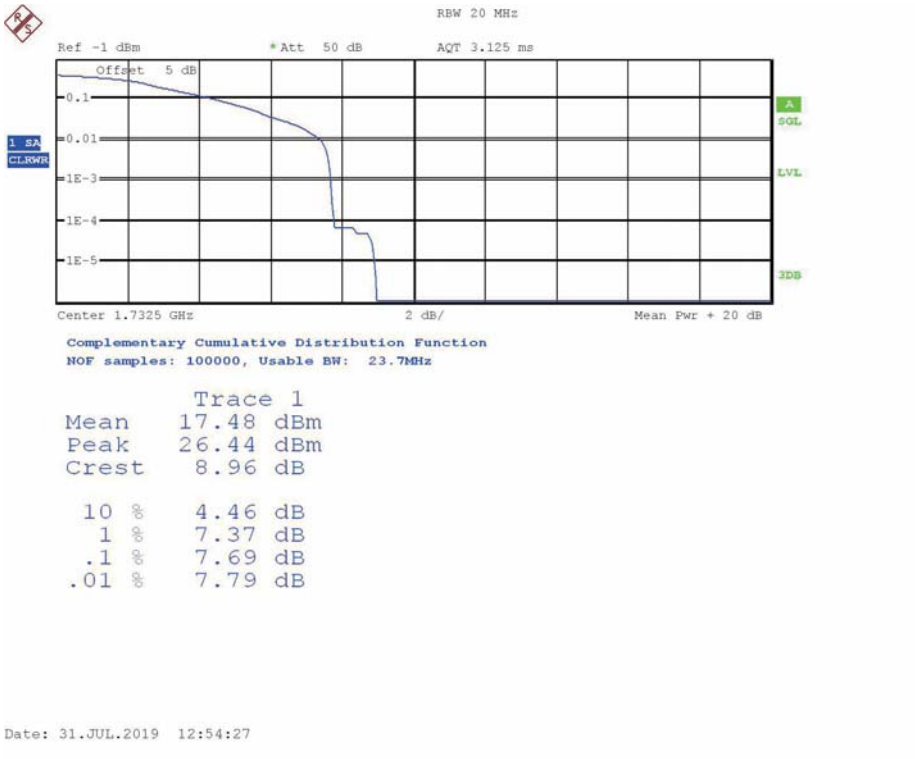
Band4-CH20175-707.5MHz -5MHz Bandwidth-QPSK



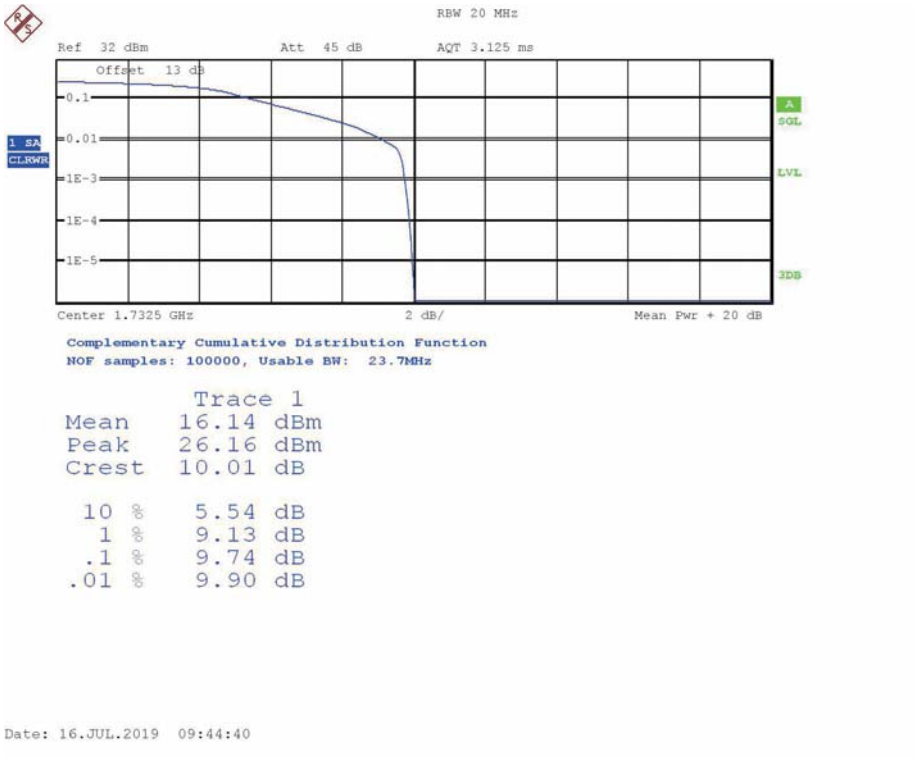
Band4-CH20175-707.5MHz-5MHz Bandwidth-16QAM



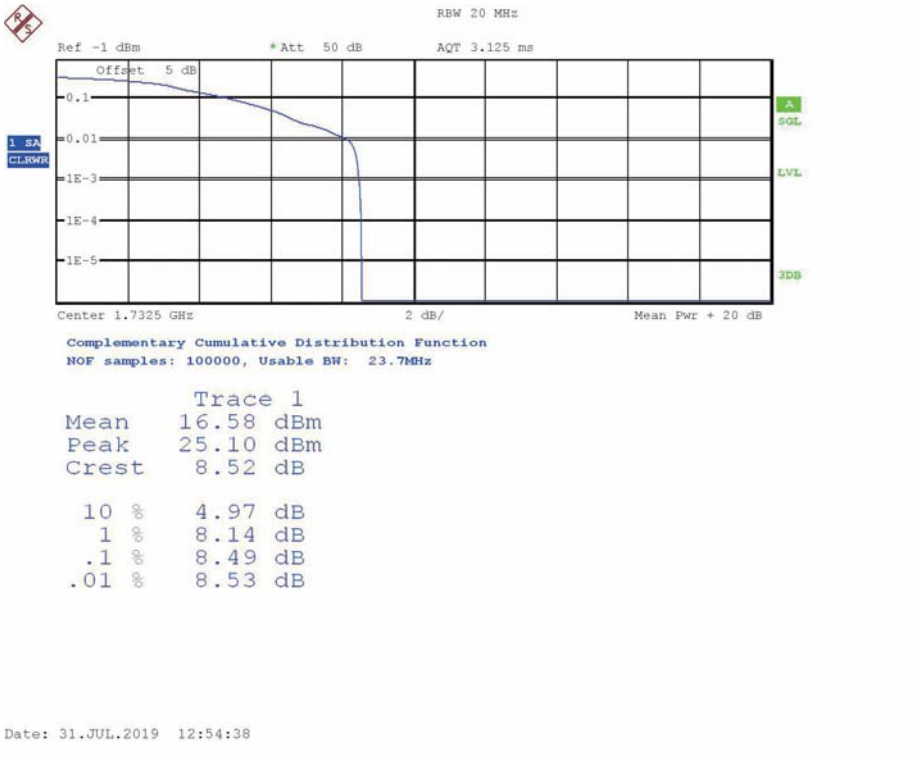
Band4-CH20175-707.5MHz-10MHz Bandwidth-QPSK



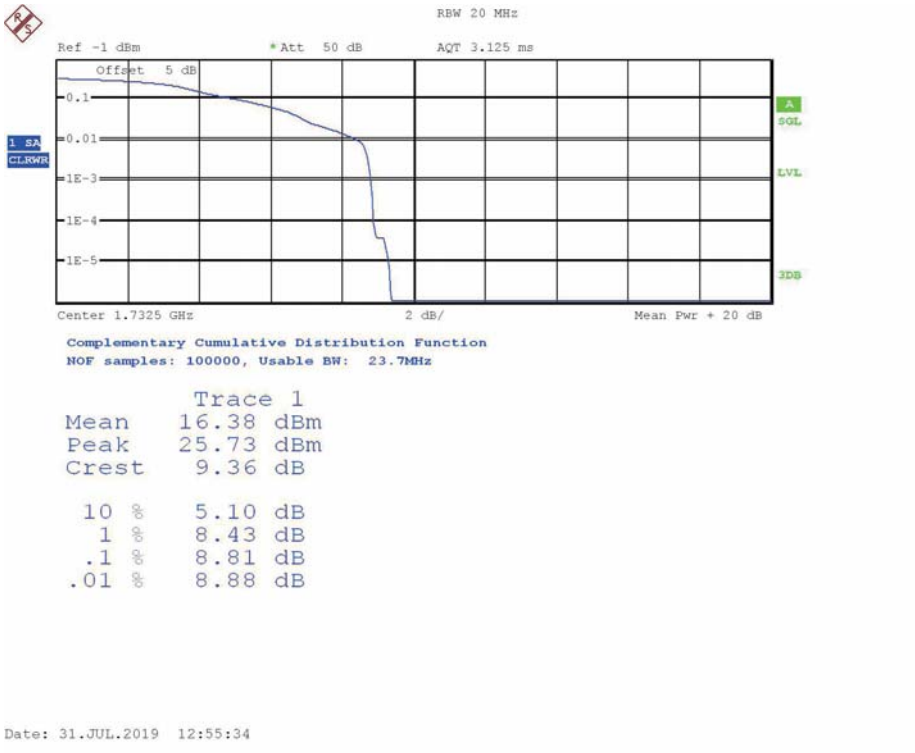
Band4-CH20175-707.5MHz-10MHz Bandwidth-16QAM



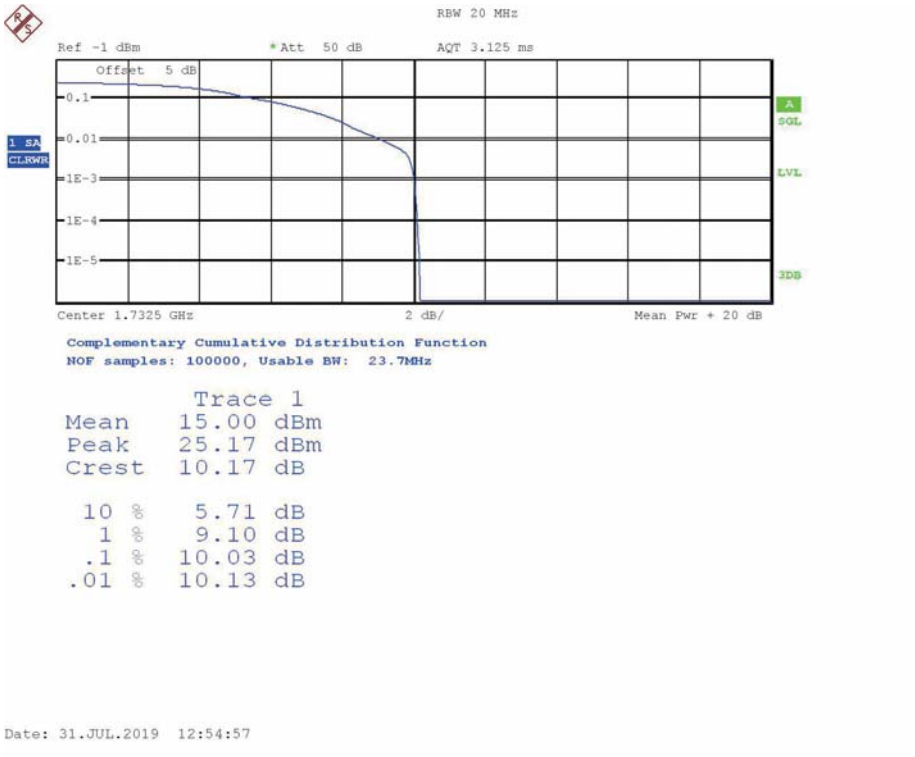
Band4-CH20175-707.5MHz -15MHz Bandwidth-QPSK



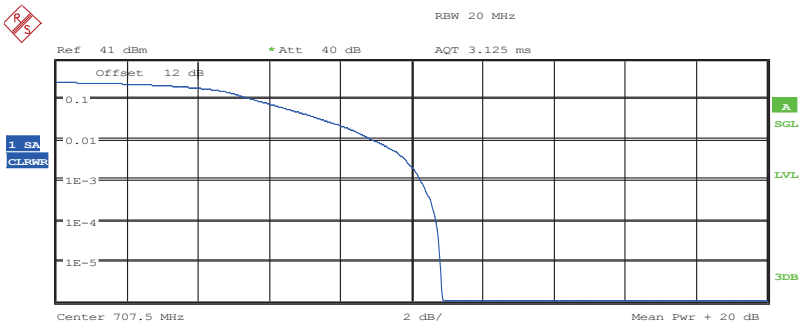
Band4-CH20175-707.5MHz-15MHz Bandwidth-16QAM



Band4-CH20175-707.5MHz-20MHz Bandwidth-QPSK



Band4-CH20175-707.5MHz-20MHz Bandwidth-16QAM

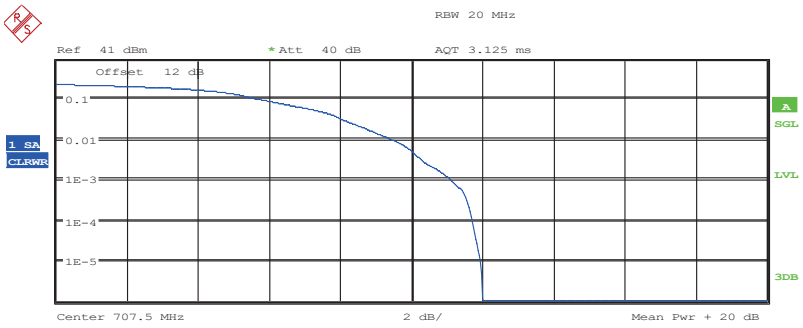


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	16.83 dBm
Peak	27.69 dBm
Crest	10.86 dB
10 %	5.61 dB
1 %	8.94 dB
.1 %	10.26 dB
.01 %	10.71 dB

Date: 27.AUG.2019 17:32:49

Band12-CH23095-707.5MHz-1.4MHz Bandwidth-QPSK

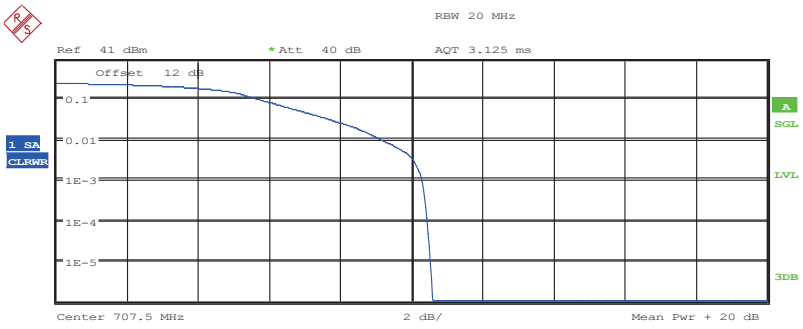


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	16.82 dBm
Peak	28.82 dBm
Crest	12.00 dB
10 %	5.83 dB
1 %	9.49 dB
.1 %	11.12 dB
.01 %	11.73 dB

Date: 27.AUG.2019 17:34:54

Band12-CH23095-707.5MHz-1.4MHz Bandwidth-16QAM

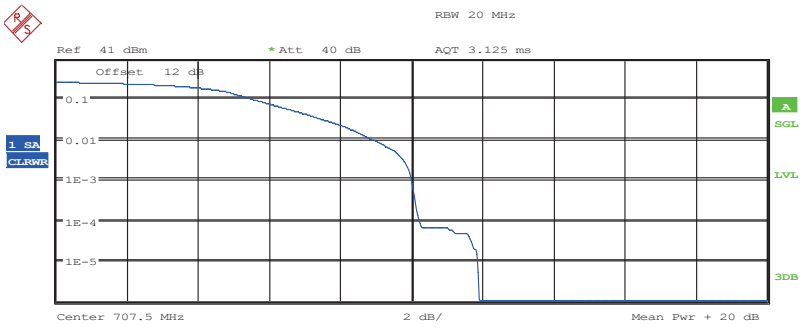


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	16.40 dBm
Peak	26.99 dBm
Crest	10.59 dB
10 %	5.77 dB
1 %	9.17 dB
.1 %	10.32 dB
.01 %	10.45 dB

Date: 27.AUG.2019 17:38:05

Band12-CH23095-707.5MHz-3MHz Bandwidth-QPSK

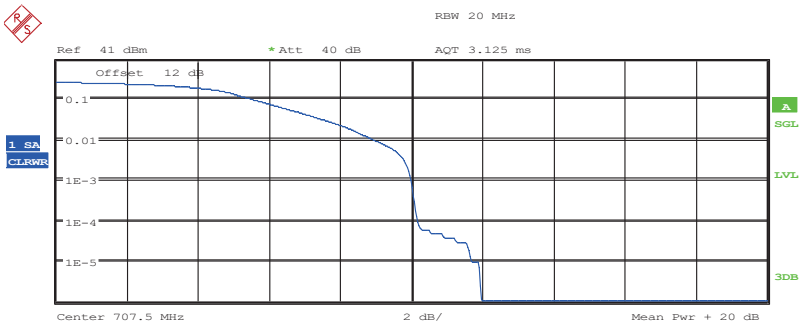


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	16.72 dBm
Peak	28.61 dBm
Crest	11.89 dB
10 %	5.61 dB
1 %	8.94 dB
.1 %	10.00 dB
.01 %	10.22 dB

Date: 27.AUG.2019 17:36:47

Band12-CH23095-707.5MHz-3MHz Bandwidth-16QAM

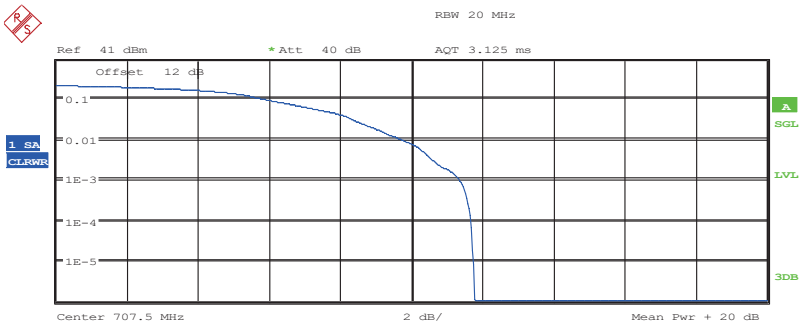


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	17.78 dBm
Peak	29.74 dBm
Crest	11.95 dB
10 %	5.61 dB
1 %	8.97 dB
.1 %	10.00 dB
.01 %	10.19 dB

Date: 27.AUG.2019 17:39:43

Band12-CH23095-707.5MHz-5MHz Bandwidth-QPSK

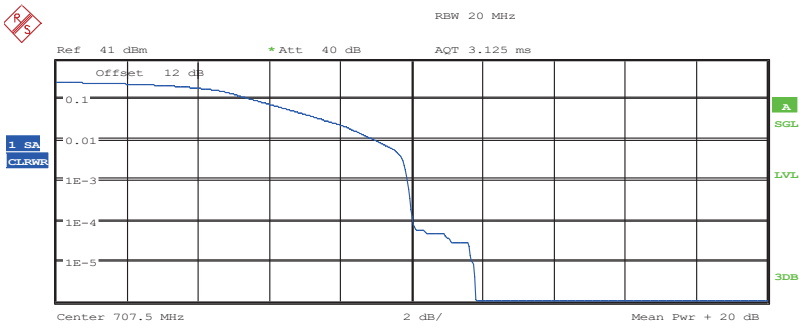


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	16.48 dBm
Peak	28.26 dBm
Crest	11.77 dB
10 %	5.96 dB
1 %	9.78 dB
.1 %	11.35 dB
.01 %	11.67 dB

Date: 27.AUG.2019 17:49:53

Band12-CH23095-707.5MHz-5MHz Bandwidth-16QAM

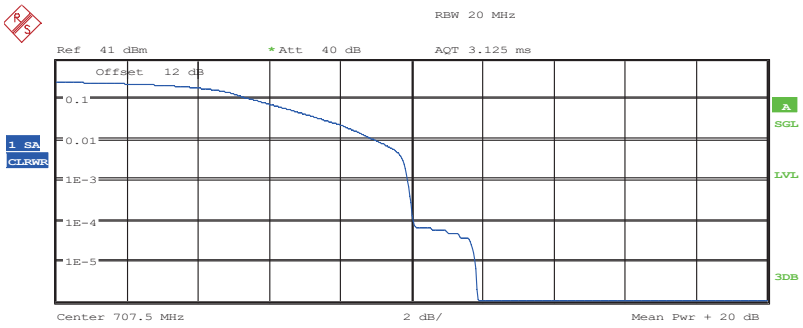


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	17.65 dBm
Peak	29.46 dBm
Crest	11.80 dB
10 %	5.58 dB
1 %	9.01 dB
.1 %	9.90 dB
.01 %	10.06 dB

Date: 27.AUG.2019 17:53:40

Band12-CH23095-707.5MHz-10MHz Bandwidth-QPSK

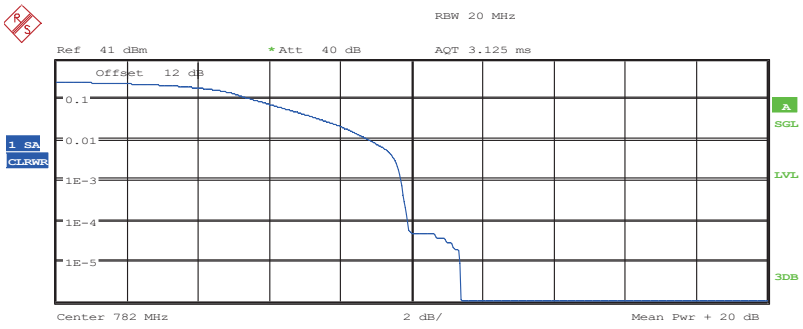


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	17.67 dBm
Peak	29.53 dBm
Crest	11.85 dB
10 %	5.58 dB
1 %	9.01 dB
.1 %	9.90 dB
.01 %	10.06 dB

Date: 27.AUG.2019 17:53:08

Band12-CH23095-707.5MHz-10MHz Bandwidth-16QAM

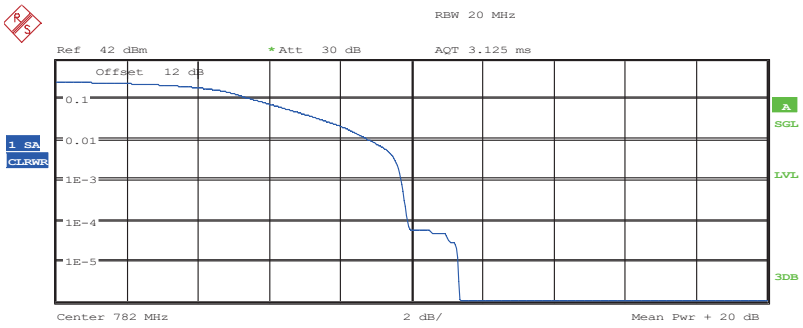


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	17.73 dBm
Peak	29.12 dBm
Crest	11.39 dB
10 %	5.61 dB
1 %	8.81 dB
.1 %	9.71 dB
.01 %	9.90 dB

Date: 27.AUG.2019 17:57:42

Band13-CH23230-782MHz-5MHz Bandwidth-QPSK

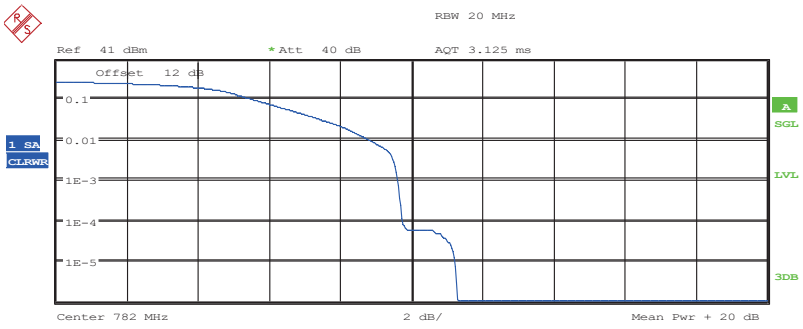


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	17.82 dBm
Peak	29.16 dBm
Crest	11.34 dB
10 %	5.61 dB
1 %	8.81 dB
.1 %	9.71 dB
.01 %	9.90 dB

Date: 28.AUG.2019 14:24:25

Band13-CH23230-782MHz-5MHz Bandwidth-16QAM

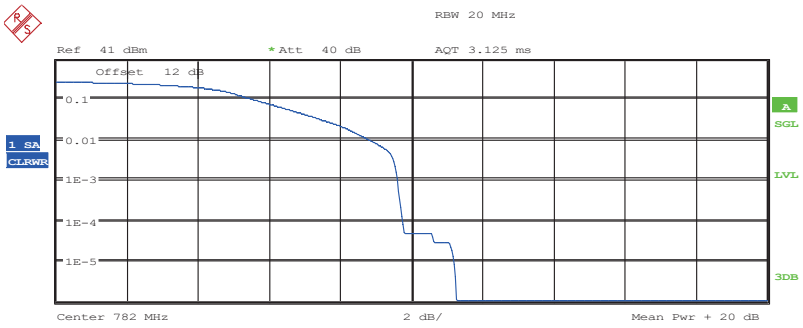


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

	Trace 1
Mean	17.69 dBm
Peak	28.97 dBm
Crest	11.28 dB
10 %	5.61 dB
1 %	8.81 dB
.1 %	9.62 dB
.01 %	9.74 dB

Date: 27.AUG.2019 18:02:16

Band13-CH23230-782MHz-10MHz Bandwidth-QPSK

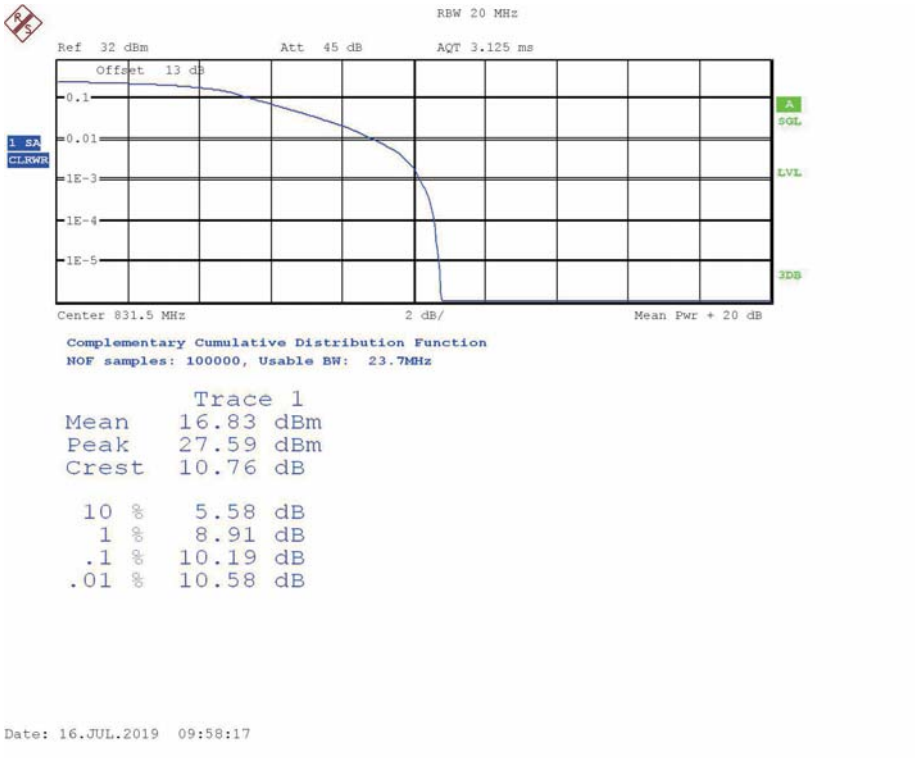


Complementary Cumulative Distribution Function
NOF samples: 100000, Usable BW: 23.7MHz

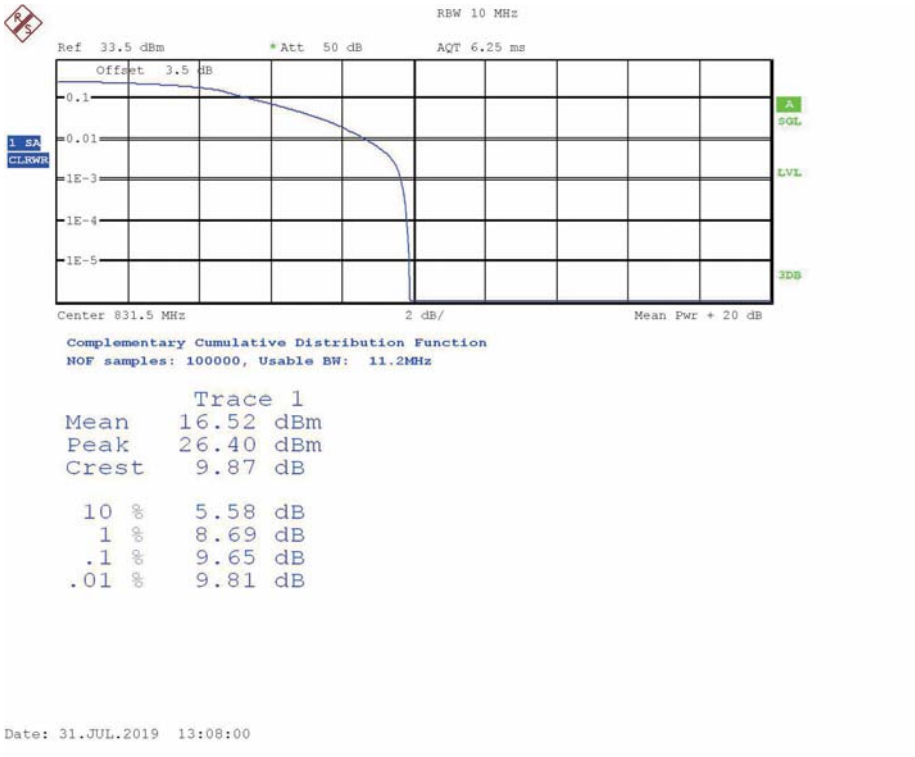
	Trace 1
Mean	17.71 dBm
Peak	28.97 dBm
Crest	11.26 dB
10 %	5.58 dB
1 %	8.85 dB
.1 %	9.62 dB
.01 %	9.78 dB

Date: 27.AUG.2019 18:01:48

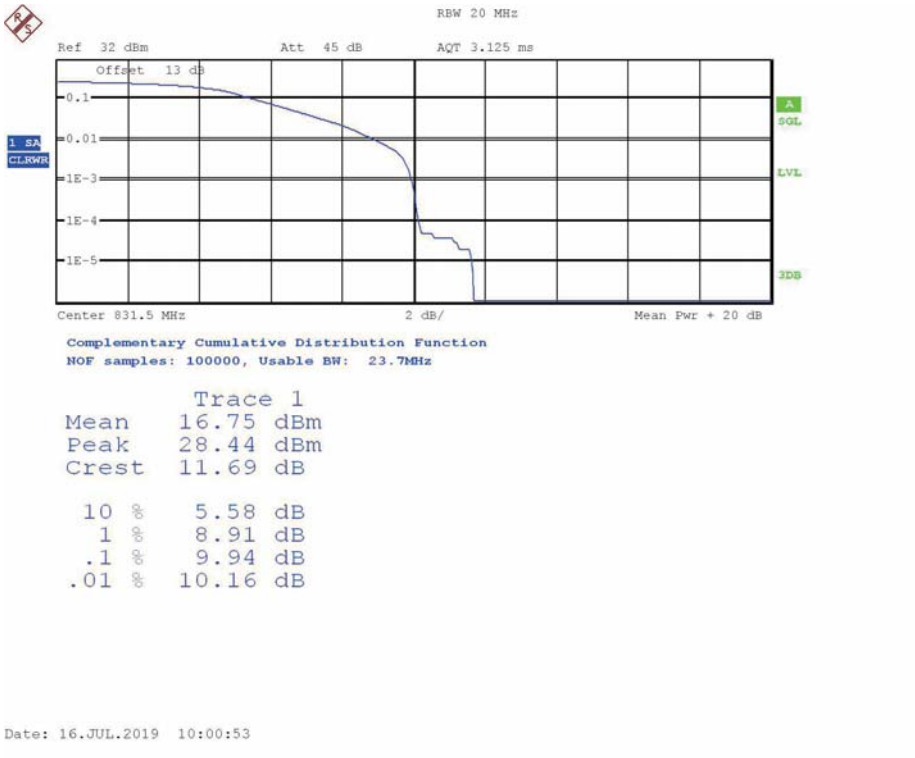
Band13-CH23230-782MHz-10MHz Bandwidth-16QAM



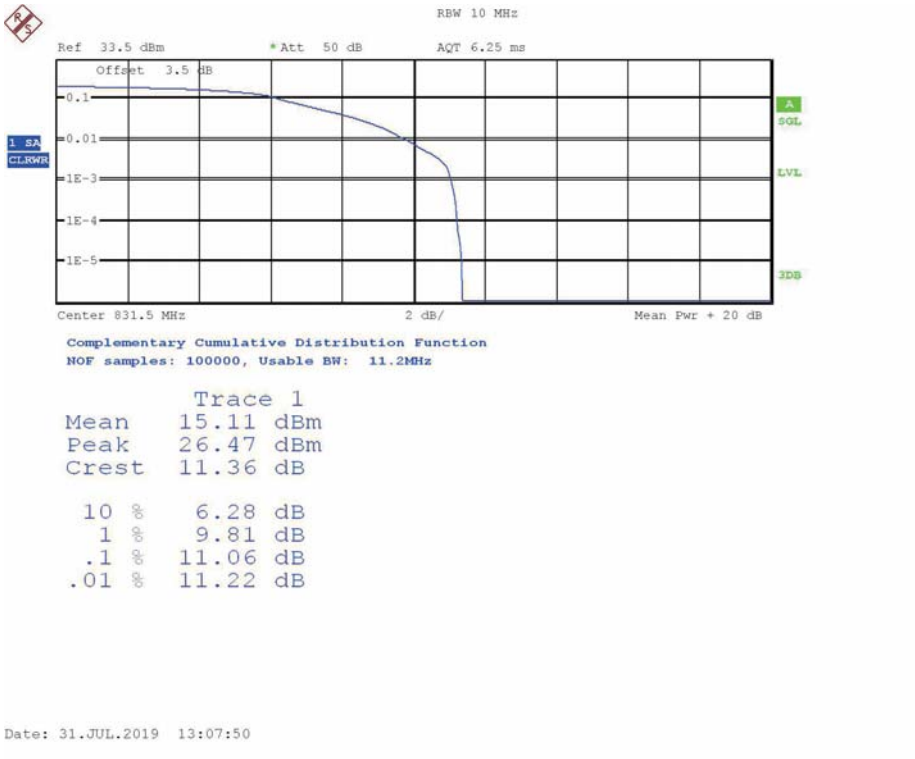
Band26-CH26865-831.5MHz-1.4MHz Bandwidth-QPSK



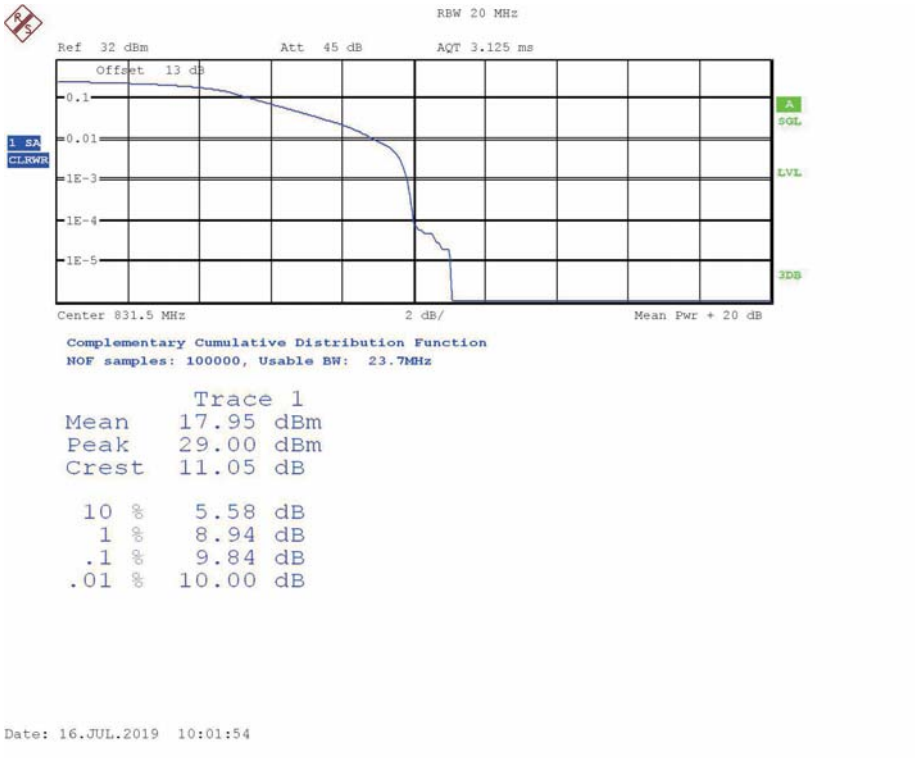
Band26-CH26865-831.5MHz-1.4MHz Bandwidth-16QAM



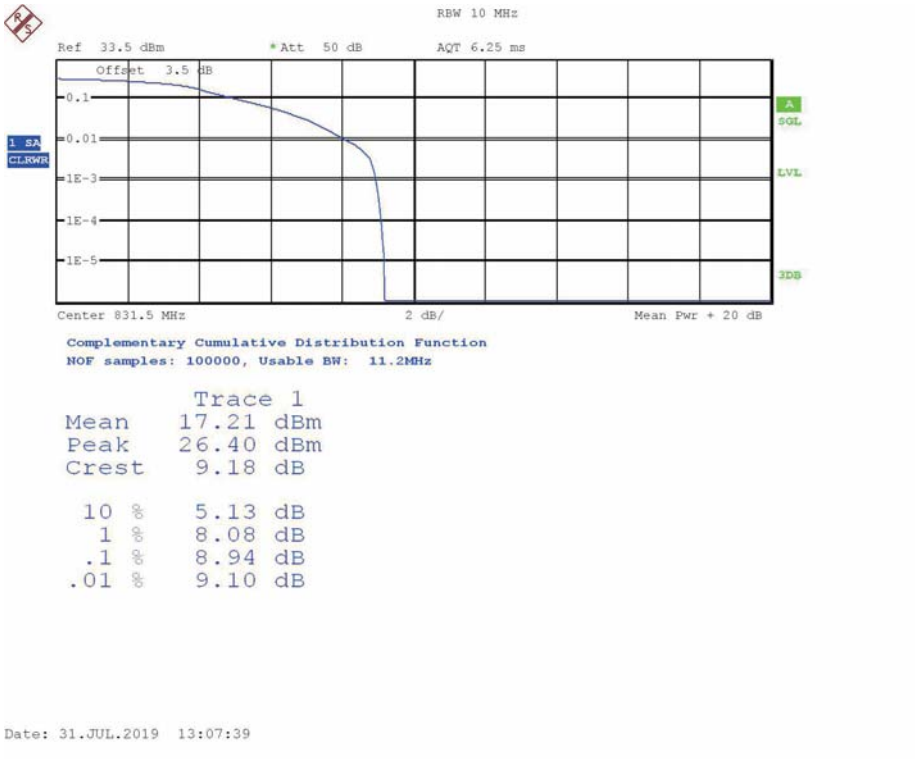
Band26-CH26865-831.5MHz-3MHz Bandwidth-QPSK



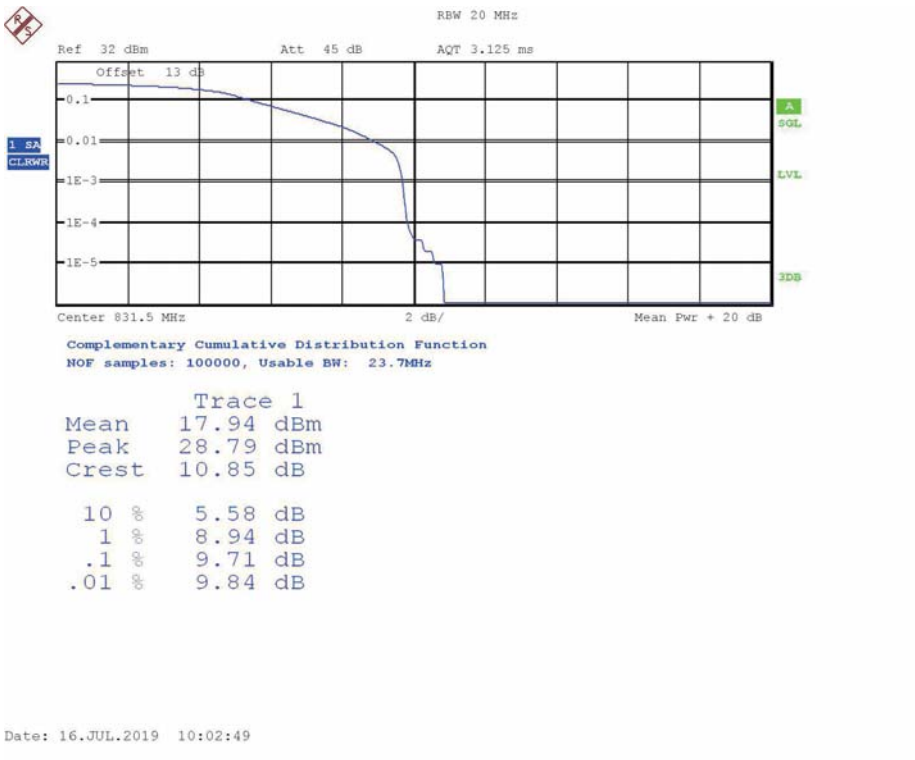
Band26-CH26865-831.5MHz-3MHz Bandwidth-16QAM



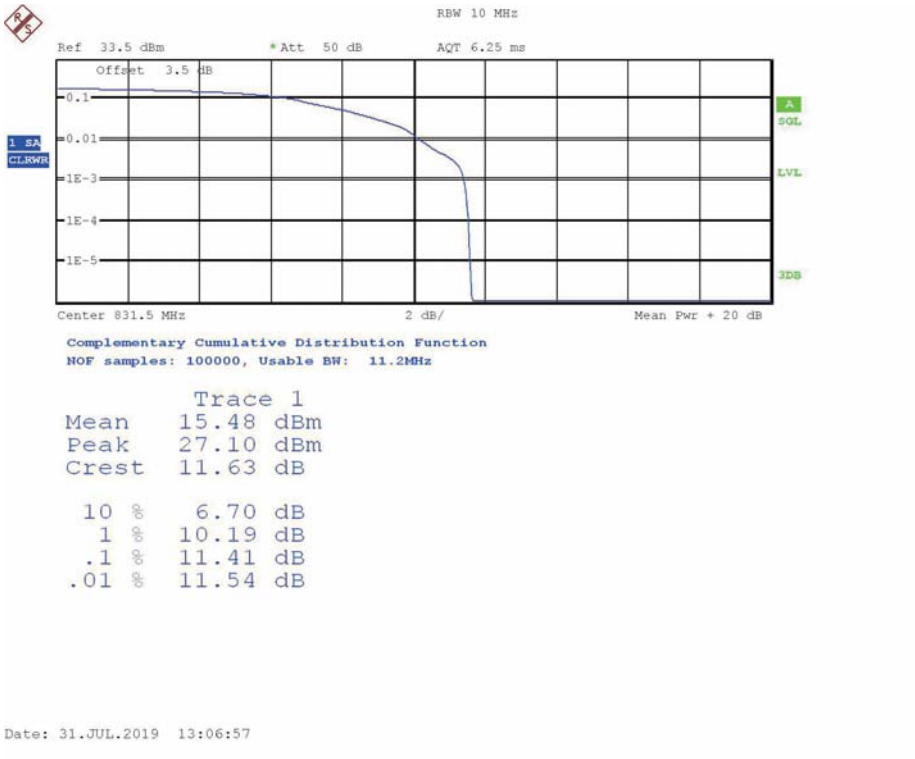
Band26-CH26865-831.5MHz-5MHz Bandwidth-QPSK



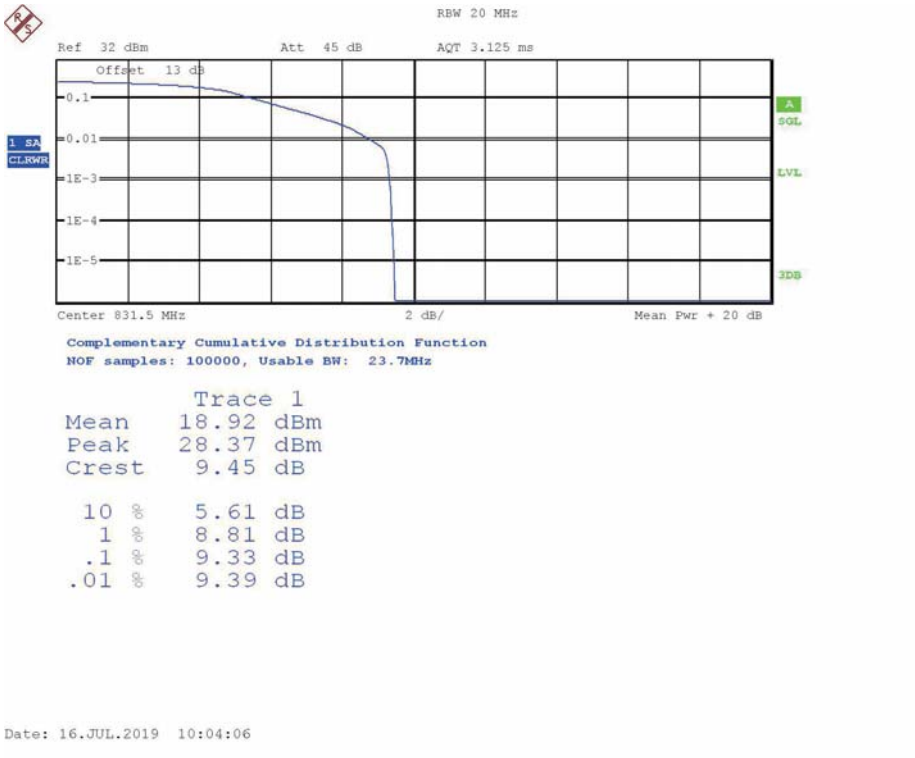
Band26-CH26865-831.5MHz-5MHz Bandwidth-16QAM



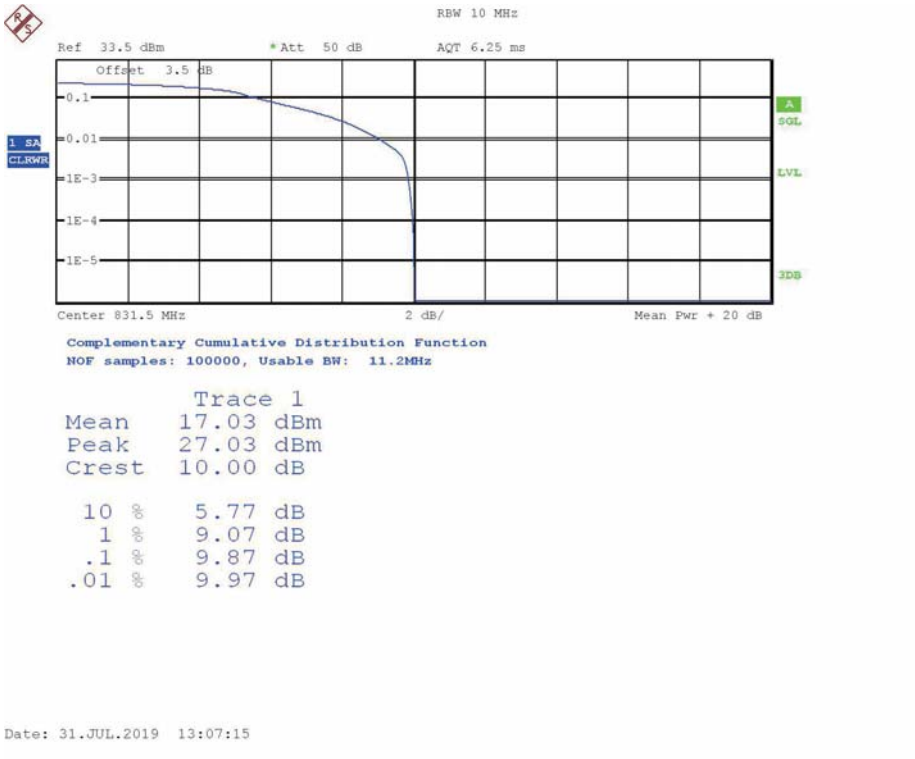
Band26-CH26865-831.5MHz-10MHz Bandwidth-QPSK



Band26-CH26865-831.5MHz-10MHz Bandwidth-16QAM



Band26-CH26865-831.5MHz-15MHz Bandwidth-QPSK



Band26-CH26865-831.5MHz-15MHz Bandwidth-16QAM

5.9 ERP and EIRP

Specifications:	FCC Part 24.232(b), 27.50(d), 27.50(h)(2), 27.50(c)
DUT Serial Number:	353081090308282
Test conditions:	Ambient Temperature:15℃-35℃ Relative Humidity:30%-60% Air pressure: 86-106kPa
Test Results:	Pass

Limit Level Construction:

This is the test for the maximum radiated power from the EUT.

According to Part 24.232(c),"Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power"and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage."

According to Part 27.50(d), “Fixed, mobile, and portable (handheld) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”.

According to Part 27.50(h)(2) “Mobile stations are limited to 2.0 watts EIRP.”.

According to Part 27.50(c), specifies “Portable stations (hand-held de-vices) are limited to 3 watts ERP.”.

Test Setup

The EUT was placed in an anechoic chamber. The Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.

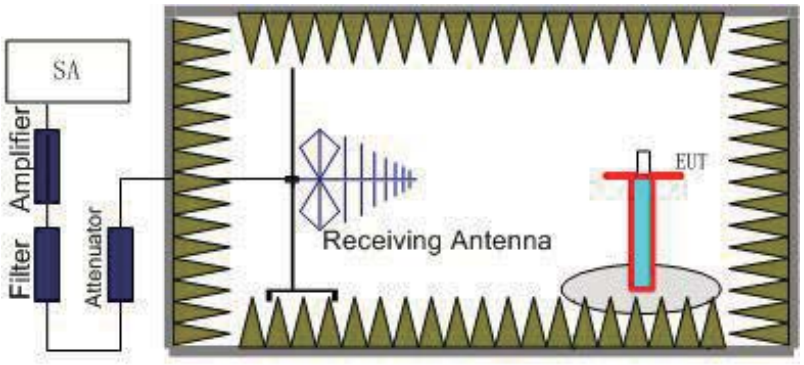
Measurement Uncertainty:

Item	Uncertainty
Expanded Uncertainty	5.15 dB (k=2)

Method of Measurement

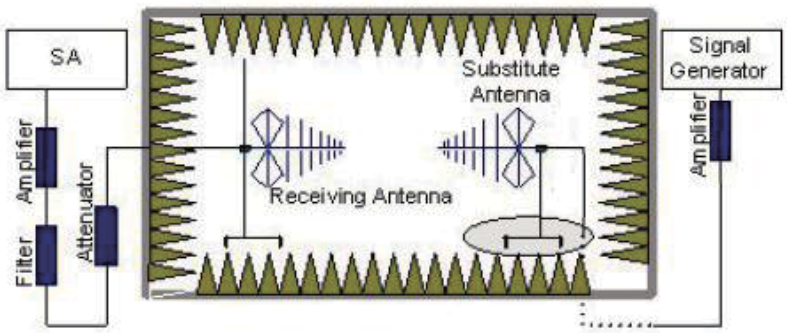
The measurements procedures in TIA-603E-2016 are used.

1. EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from thereceive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUTfor emission measurements. The height of receiving antenna is 1.5m. The test setup refers tofigure below. Detected emissions were maximized at each frequency by rotating the EUTthrough 360° and adjusting the receiving antenna polarization. The radiated emissionmeasurements of all transmit frequencies in three channels (High, Middle, Low) weremeasured with peak detector.



2. The EUT is then put into continuously transmitting mode at its maximum power level duringthe test. And the maximum value of the receiver should be recorded as (Pr).

3. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, an substitution antenna for the frequency band of interest is placed at thereference point of the chamber. An RF Signal source for the frequency band of interest isconnected to the substitution antenna with a cable that has been constructed to not interferewith the radiation pattern of the antenna. A power (PMea) is applied to the input of thesubstitution antenna, and adjust the level of the signal generator output until the value of thereceiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. Thetest should be performed by rotating the test item and adjusting the receiving antennapolarization.

4. A amplifier should be connected to the Signal Source output port. And the cable should beconnect between the Amplifier and the Substitution Antenna.

The cable loss (Pcl) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should berecorded after test.

The measurement results are obtained as described below:

Power(EIRP)=PMea+ PAg- Pcl+ Ga

5. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15dBi) and known input power.

6. ERP can be calculated from EIRP by subtracting the gain of the dipole,

ERP=S.G output(dBM)-cable loss (dB) + antenna gain (dBd)

EIRP=S.G output(dBM)-cable loss (dB) + antenna gain (dBi)

Note: Only worst case result is given below.

5.9.1 GSM 850 ERP

Test Data （GPRS GMSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
824.2	28.09	3.4	6.9	31.59	V
836.6	27.91	3.4	6.9	31.41	V
848.8	27.22	3.4	6.9	30.72	V

Test Data （EGPRS GMSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
824.2	28.61	3.4	6.9	32.11	V
836.6	28.33	3.4	6.9	31.83	V
848.8	28.50	3.4	6.9	32.0	V

Test Data （EGPRS 8PSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
824.2	23.37	3.4	6.9	26.87	V
836.6	23.41	3.4	6.9	26.91	V
848.8	22.40	3.4	6.9	25.90	V

5.9.2 GSM 1900 EIRP

Test Data （GPRS GMSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.2	25.67	5.0	7.0	27.67	V
1880.0	25.80	5.0	7.0	27.80	V
1909.8	25.72	5.1	7.0	27.62	V

Test Data （EGPRS GMSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.2	25.53	5.0	7.0	27.53	V
1880.0	25.81	5.0	7.0	27.81	V
1909.8	25.46	5.1	7.0	27.36	V

Test Data （EGPRS 8PSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.2	23.31	5.0	7.0	25.31	V
1880.0	23.52	5.0	7.0	25.52	V
1909.8	23.10	5.1	7.0	25.0	V

5.9.3 NB-IoT Band 2 EIRP

Test Data （QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.0	20.54	5.0	7.0	22.54	V
1880.0	20.63	5.0	7.0	22.63	V
1910.0	20.82	5.1	7.0	22.72	V

Test Data （BPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.0	20.60	5.0	7.0	22.60	V
1880.0	20.67	5.0	7.0	22.67	V
1910.0	20.62	5.1	7.0	22.52	V

5.9.4 NB-IoT Band 4 EIRP

Test Data （QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1710.0	19.56	4.8	7.1	21.86	V
1732.5	19.59	4.9	7.1	21.79	V
1755.0	19.72	4.9	7.1	21.92	V

Test Data （BPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1710.0	19.43	4.8	7.1	21.73	V
1732.5	19.29	4.9	7.1	21.49	V
1755.0	19.57	4.9	7.1	21.77	V

5.9.5 NB-IoT Band 12 ERP

Test Data （QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
699.1	17.25	3.1	8.9	23.05	V
707.5	16.86	3.1	9.1	22.86	V
715.8	16.79	3.1	9.1	22.79	V

Test Data （BPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
699.1	16.89	3.1	8.9	22.69	V
707.5	16.57	3.1	9.1	22.57	V
715.8	16.77	3.1	9.1	22.77	V

5.9.6 NB-IoT Band 13 ERP

Test Data （QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
777.1	18.09	3.3	8.1	22.89	V
782.0	17.95	3.3	8.1	22.75	V
786.8	18.02	3.3	8.0	22.72	V

Test Data （BPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
777.1	17.55	3.3	8.1	22.35	V
782.0	17.82	3.3	8.1	22.62	V
786.8	17.84	3.3	8.0	22.54	V

5.9.7 NB-IoT Band 26 ERP

Test Data （QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.58	3.3	6.9	22.18	V
831.5	18.82	3.4	6.9	22.32	V
849.0	18.80	3.4	6.9	22.30	V

Test Data （BPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.24	3.3	6.9	21.84	V
831.5	18.43	3.4	6.9	21.93	V
849.0	18.22	3.4	6.9	21.72	V

5.9.8 Cat-M Band 2 EIRP

Test Data （1.4M QPSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.7	19.35	5.0	7.0	21.35	V
1880.0	19.62	5.0	7.0	21.62	V
1909.3	19.58	5.1	7.0	21.48	V

Test Data （1.4M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1850.7	18.75	5.0	7.0	20.75	V
1880.0	18.83	5.0	7.0	20.83	V
1909.3	18.98	5.1	7.0	20.88	V

Test Data （3M QPSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1851.5	19.49	5.0	7.0	21.49	V
1880.0	19.33	5.0	7.0	21.33	V
1908.5	19.50	5.1	7.0	21.40	V

Test Data （3M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1851.5	18.79	5.0	7.0	20.79	V
1880.0	18.81	5.0	7.0	20.81	V
1908.5	19.0	5.1	7.0	20.90	V

Test Data （5M QPSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1852.5	19.42	5.0	7.0	21.42	V
1880.0	19.60	5.0	7.0	21.60	V
1907.5	19.63	5.1	7.0	21.53	V

Test Data （5M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1852.5	18.86	5.0	7.0	20.86	V
1880.0	18.95	5.0	7.0	20.95	V
1907.5	18.83	5.1	7.0	20.73	V

Test Data （10M QPSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1855.0	19.38	5.0	7.0	21.38	V
1880.0	19.43	5.0	7.0	21.43	V
1905.0	19.45	5.1	7.0	21.35	V

Test Data （10M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1855.0	18.78	5.0	7.0	20.78	V
1880.0	18.83	5.0	7.0	20.83	V
1905.0	18.85	5.1	7.0	20.75	V

Test Data （15M QPSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1857.5	19.52	5.0	7.0	21.52	V
1880.0	19.60	5.0	7.0	21.60	V
1902.5	19.59	5.1	7.0	21.49	V

Test Data （15M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1857.5	18.82	5.0	7.0	20.82	V
1880.0	18.95	5.0	7.0	20.95	V
1902.5	18.83	5.1	7.0	20.73	V

Test Data （20M QPSK Mode ）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1858.0	19.42	5.0	7.0	21.42	V
1880.0	19.56	5.0	7.0	21.56	V
1902.0	19.49	5.1	7.0	21.39	V

Test Data （20M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1858.0	18.69	5.0	7.0	20.69	V
1880.0	18.73	5.0	7.0	20.73	V
1902.0	18.91	5.1	7.0	20.81	V

5.9.9 Cat-M Band 4 EIRP

Test Data （1.4M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1710.7	19.14	4.8	7.1	21.44	V
1732.5	19.09	4.9	7.1	21.29	V
1754.3	19.09	4.9	7.1	21.29	V

Test Data （1.4M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1710.7	18.27	4.8	7.1	20.57	V
1732.5	18.42	4.9	7.1	20.62	V
1754.3	18.16	4.9	7.1	20.36	V

Test Data （3M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1711.5	19.25	4.8	7.1	21.55	V
1732.5	19.26	4.9	7.1	21.46	V
1753.5	19.01	4.9	7.1	21.21	V

Test Data （3M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1711.5	18.37	4.8	7.1	20.67	V
1732.5	18.46	4.9	7.1	20.66	V
1753.5	18.22	4.9	7.1	20.42	V

Test Data （5M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1712.5	19.23	4.8	7.1	21.53	V
1732.5	19.24	4.9	7.1	21.44	V
1752.5	19.32	4.9	7.1	21.52	V

Test Data （5M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1712.5	18.10	4.8	7.1	20.40	V
1732.5	18.13	4.9	7.1	20.33	V
1752.5	18.42	4.9	7.1	20.62	V

Test Data （10M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1715.0	19.40	4.8	7.1	21.70	V
1732.5	19.46	4.9	7.1	21.66	V
1750.0	19.52	4.9	7.1	21.72	V

Test Data （10M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1715.0	18.24	4.8	7.1	20.54	V
1732.5	18.52	4.9	7.1	20.72	V
1750.0	18.43	4.9	7.1	20.63	V

Test Data （15M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1717.5	18.96	4.8	7.1	21.26	V
1732.5	19.13	4.9	7.1	21.33	V
1747.5	19.07	4.9	7.1	21.27	V

Test Data （15M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1717.5	18.29	4.8	7.1	20.59	V
1732.5	18.29	4.9	7.1	20.49	V
1747.5	18.33	4.9	7.1	20.53	V

Test Data （20M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1720.0	19.32	4.8	7.1	21.62	V
1732.5	19.30	4.9	7.1	21.50	V
1745.0	19.17	4.9	7.1	21.37	V

Test Data （20M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	EIRP [dBm]	Antenna Polarization [H/V]
1720.0	18.09	4.8	7.1	20.39	V
1732.5	18.24	4.9	7.1	20.44	V
1745.0	17.99	4.9	7.1	20.19	V

5.9.10 Cat-M Band 12 ERP

Test Data （1.4M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
699.7	15.66	3.1	8.9	21.46	V
707.5	15.54	3.1	9.1	21.54	V
715.2	15.66	3.1	9.1	21.66	V

Test Data （1.4M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
699.7	15.37	3.1	8.9	21.17	V
707.5	15.09	3.1	9.1	21.09	V
715.2	15.25	3.1	9.1	21.25	V

Test Data （3M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
700.5	15.89	3.1	8.9	21.69	V
707.5	15.55	3.1	9.1	21.55	V
714.4	15.62	3.1	9.1	21.62	V

Test Data （3M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
700.5	15.60	3.1	8.9	21.40	V
707.5	15.33	3.1	9.1	21.33	V
714.4	15.45	3.1	9.1	21.45	V

Test Data （5M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
701.5	15.73	3.1	8.9	21.53	V
707.5	15.60	3.1	9.1	21.60	V
713.4	15.59	3.1	9.1	21.59	V

Test Data （5M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
701.5	15.46	3.1	8.9	21.26	V
707.5	15.30	3.1	9.1	21.30	V
713.4	15.22	3.1	9.1	21.22	V

Test Data （10M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
702.5	15.94	3.1	8.9	21.74	V
707.5	15.50	3.1	9.1	21.50	V
711.0	15.45	3.1	9.1	21.45	V

Test Data （10M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
702.5	15.54	3.1	8.9	21.34	V
707.5	15.29	3.1	9.1	21.29	V
711.0	15.20	3.1	9.1	21.20	V

5.9.11 Cat-M Band 13 ERP

Test Data （5M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
779.5	16.81	3.3	8.1	21.61	V
782.0	16.88	3.3	8.1	21.68	V
784.4	16.69	3.3	8.0	21.39	V

Test Data （5M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
779.5	16.42	3.3	8.1	21.22	V
782.0	16.50	3.3	8.1	21.30	V
784.4	16.34	3.3	8.0	21.04	V

Test Data （10M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
777.0	16.89	3.3	8.1	21.69	V
782.0	16.92	3.3	8.1	21.72	V
786.9	16.87	3.3	8.0	21.57	V

Test Data （10M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
777.0	16.58	3.3	8.1	21.38	V
782.0	16.56	3.3	8.1	21.36	V
786.9	16.52	3.3	8.0	21.22	V

5.9.12 Cat-M Band 26 ERP

Test Data （1.4M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.23	3.3	6.9	21.83	V
831.5	18.40	3.4	6.9	21.90	V
849.0	18.36	3.4	6.9	21.86	V

Test Data （1.4M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	17.12	3.3	6.9	20.72	V
831.5	17.30	3.4	6.9	20.80	V
849.0	17.27	3.4	6.9	20.77	V

Test Data （3M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.53	3.3	6.9	22.13	V
831.5	18.47	3.4	6.9	21.97	V
849.0	18.56	3.4	6.9	22.06	V

Test Data （3M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	17.12	3.3	6.9	20.72	V
831.5	17.16	3.4	6.9	20.66	V
849.0	17.31	3.4	6.9	20.81	V

Test Data （5M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.25	3.3	6.9	21.85	V
831.5	18.27	3.4	6.9	21.77	V
849.0	18.49	3.4	6.9	21.99	V

Test Data （5M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	16.93	3.3	6.9	20.53	V
831.5	17.19	3.4	6.9	20.69	V
849.0	17.18	3.4	6.9	20.68	V

Test Data （10M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.43	3.3	6.9	22.03	V
831.5	18.37	3.4	6.9	21.87	V
849.0	18.44	3.4	6.9	21.94	V

Test Data （10M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	17.18	3.3	6.9	20.78	V
831.5	17.36	3.4	6.9	20.86	V
849.0	17.09	3.4	6.9	20.59	V

Test Data （15M QPSK Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	18.28	3.3	6.9	21.88	V
831.5	18.43	3.4	6.9	21.93	V
849.0	18.48	3.4	6.9	21.98	V

Test Data （15M 16QAM Mode）

Frequency [MHz]	Generator output power(P_g) [dBm]	Cable loss [dB]	Antenna Gain [dB]	ERP [dBm]	Antenna Polarization [H/V]
814.0	17.11	3.3	6.9	20.71	V
831.5	17.16	3.4	6.9	20.66	V
849.0	17.29	3.4	6.9	20.79	V

Annex A EUT Photos

See the document"AT Plus 4E-External Photos".
See the document"AT Plus 4E-Internal Photos".

ANNEX B Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

End Of Report