FCC Measurement/Technical Report on

PSR 7/8 A
Cellular Repeater for class A use

FCC ID: XS5-PSR78A

Test Report Reference: MDE_BVNBG_1904_FCC_02

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Note:
The following test results relate only to the devices specified in this document. This report shall not be reproduced in parts without the written approval of the test laboratory.

Table of Contents

1 Applied Standards and Test Summary 3

1.1 Applied Standards 3

1.2 Table of measurement's FCC Reference 4

1.3 Measurement Summary / Signatures 5

2 Administrative Data 15

2.1 Testing Laboratory 15

2.2 Project Data 15

2.3 Applicant Data 15

2.4 Manufacturer Data 15

3 Test object Data 16

3.1 General EUT Description 16

3.2 EUT Main components 17

3.3 Ancillary Equipment 17

3.4 Auxiliary Equipment 17

3.5 EUT Setups 18

3.6 Operating Modes 19

3.7 Product labelling 21

4 Test Results 22

4.1 Effective Radiated Power, mean output power and zone enhancer gain 22

4.2 Peak to Average Ratio 32

4.3 Occupied Bandwidth / Input-versus-output Spectrum 61

4.4 Conducted spurious emissions at antenna terminals 119

4.5 Out-of-band emission limits 134

4.6 Out-of-band rejection 148

4.7 Noise figure 155

4.8 Field strength of spurious radiation 160

5 Test Equipment 171

6 Antenna Factors, Cable Loss and Sample Calculations 174

6.1 LISN R&S ESH3-Z5 (150 kHz – 30 MHz) 174

6.2 Antenna R&S HFH2-Z2 (9 kHz – 30 MHz) 175

6.3 Antenna R&S HL562 (30 MHz – 1 GHz) 176

6.4 Antenna R&S HF907 (1 GHz – 18 GHz) 177

6.5 Antenna EMCO 3160-09 (18 GHz – 26.5 GHz) 178

6.6 Antenna EMCO 3160-10 (26.5 GHz – 40 GHz) 179

7 Measurement Uncertainties 180

8 Photo Report 180

1 APPLIED STANDARDS AND TEST SUMMARY

1.1 APPLIED STANDARDS

Prepared in accordance with the requirements of FCC Rules and Regulations as listed in 47 CFR Ch.1 Parts 2 and 90, (10/1/18 Edition). The following subparts are applicable to the results in this test report.

Part 2, Subpart J - Equipment Authorization Procedures, Certification

Part 90; Private Land Mobile Radio Services

Subpart I – General Technical Standards

§ 90.213 – Frequency Stability
§ 90.219 – Use of signal boosters

The tests were selected and performed with reference to:

- FCC Public Notice 935210 applying “Signal Boosters Basic Certification Requirements” 935210 D02 v04r02, 2019-04-15.
- FCC Public Notice 935210 applying “Measurement guidance for industrial and non-consumer signal booster, repeater and amplifier devices” 935210 D05 v01r03,
- 2019-04-15.
- FCC Public Notice 971168 applying “Measurement guidance for certification of licensed digital transmitters” 971168 D01 v03r01,2018-04-09
- ANSI C63.26: 2015

Summary Test Results:
The EUT complied with all performed tests as listed in chapter 1.3 Measurement Summary / Signatures.

1.2 TABLE OF MEASUREMENT'S FCC REFERENCE

Measurement requirements for Industrial Signal Booster from FCC

Measurement	FCC reference
Effective radiated power, mean output power and zone enhancer gain	§2.1046 §90.219 KDB 935210 D05 v01r03: 3.5
Peak to Average Ratio	-
Occupied bandwidth Input-versus-output spectrum	§2.1049 KDB 935210 D05 v01r03: 3.4
Conducted spurious Emission at Antenna Terminal	§2.1051 §90.219
Out-of-band emissions limits/Intermodulation	§2.1051 §90.219 KDB 935210 D05 v01r03: 3.6
Frequency stability	§2.1055 §90.213
Field strength of spurious radiation	§2.1053 §90.219
Out-of-band rejection	KDB 935210 D05 v01r03: 3.3
Noise Figure	§90.219

1.3 MEASUREMENT SUMMARY / SIGNATURES

Band 769 MHz – 775 MHz (Downlink) / 799 MHz – 805 MHz (Uplink)

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations / Repeater]	**§2.1046, §90.219 (e) (1), KDB 935210 D02 II (p)(4)**
Effective Radiated Power, mean output power and zone enhancer gain The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.5	**Final Result**

OP-Mode Frequency Band, Direction, Input Power, Signal Type	**Setup**	**FCC**
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, CW	S01_AA01	Passed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, CW	S01_AA01	Passed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, CW	S01_AA01	Passed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, CW	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 [Base Stations / Repeater]	
Peak to Average Ratio The measurement was performed according to ANSI C63.26	**Final Result**

OP-Mode Frequency Band, Direction, Input Power, Signal Type	**Setup**	**FCC**
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 4K00F3E	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 4K00F3E	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 11K3F3E	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 11K3F3E	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 8K10F1D	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 8K10F1D	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 9K80D7W	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 9K80D7W	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 16K0F3E	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 16K0F3E	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 4K00F3E	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 4K00F3E	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 11K3F3E	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 11K3F3E	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 8K10F1D	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 8K10F1D	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 9K80D7W	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 9K80D7W	S01_AA01	Performed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 16K0F3E	S01_AA01	Performed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 16K0F3E	S01_AA01	Performed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1049, §90.219(e) (ii), KDB 935210 D02 II (p)(3)

Occupied Bandwidth / Input-versus-output Spectrum
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.4

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 4K00F3E	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 4K00F3E	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 11K3F3E	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 11K3F3E	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 8K10F1D	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 8K10F1D	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 9K80D7W	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 9K80D7W	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 0.3 dB < AGC, 16K0F3E	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 0.3 dB < AGC, 16K0F3E	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 4K00F3E	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 4K00F3E	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 11K3F3E	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 11K3F3E	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 8K10F1D	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 8K10F1D	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 9K80D7W	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 9K80D7W	S01_AB01	Passed
Band 769 MHz - 775 MHz, RF downlink, 3 dB > AGC, 16K0F3E	S01_AB01	Passed
Band 799 MHz - 805 MHz, RF uplink, 3 dB > AGC, 16K0F3E	S01_AB01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1051, §90.219(e) (3)

Conducted spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26

Final Result

OP-Mode Frequency Band, Test Frequency, Direction, Signal Type	Setup	FCC
Band 769 MHz - 775 MHz, high, RF downlink, CW	S01_AA01	Passed
Band 799 MHz - 805 MHz, high, RF uplink, CW	S01_AA01	Passed
Band 769 MHz - 775 MHz, low, RF downlink, CW	S01_AA01	Passed
Band 799 MHz - 805 MHz, low, RF uplink, CW	S01_AA01	Passed
Band 769 MHz - 775 MHz, mid, RF downlink, CW	S01_AA01	Passed
Band 799 MHz - 805 MHz, mid, RF uplink, CW	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart R/I [Base Stations/Repeater]	§2.1053, §90.219(d) (6) (i), KDB 935210 D02 II (p)(3)

Out-of-band emission limits/Intermodulation

The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.6 **Final Result**

OP-Mode Band Edge, Frequency Band, Number of signals, Direction, Input Power, Signal Type	Setup	FCC
Band 769 MHz - 775 MHz, 2, RF downlink, 0.3 dB < AGC, CW	S01_AA01	Performed
Band 799 MHz – 805 MHz, 2, RF uplink, 0.3 dB < AGC, CW	S01_AA01	Performed
Band 769 MHz - 775 MHz, 2, RF downlink, 3 dB > AGC, CW	S01_AA01	Performed
Band 799 MHz - 805 MHz, 2, RF uplink, 3 dB > AGC, CW	S01_AA01	Performed

47 CFR CHAPTER [Base Stations/Repeater]	KDB 935210 D02 II (p)(2)

Out-of-band rejection

The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Direction	Setup	FCC
Band 769 MHz - 775 MHz, RF downlink	S01_AA01	Passed
Band 799 MHz – 805 MHz, RF uplink	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§90.219 (e) (2)

Noise Figure

The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Direction, Test Step	Setup	FCC
Band 769 MHz - 775 MHz, RF downlink, passband	S01_AA01	Passed
Band 799 MHz – 805 MHz, RF uplink, passband	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1053, §90.219 (e) (3)

Field strength of spurious radiation

The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Test Frequency, Direction	Setup	FCC
Band 769 MHz - 775 MHz, high, RF downlink	S01_AA01	Passed
Band 799 MHz - 805 MHz, high, RF uplink	S01_AA01	Passed
Band 769 MHz - 775 MHz, low, RF downlink	S01_AA01	Passed
Band 799 MHz - 805 MHz, low, RF uplink	S01_AA01	Passed
Band 769 MHz - 775 MHz, mid, RF downlink	S01_AA01	Passed
Band 799 MHz - 805 MHz, mid, RF uplink	S01_AA01	Passed

Band 851 MHz – 854 MHz (Downlink) / 806 MHz – 809 MHz (Uplink)

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations / Repeater]	§2.1046, §90.219 (e) (1) KDB 935210 D02 II (p)(4)

Effective Radiated Power, mean output power and zone enhancer gain
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.5

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, CW	S01_AA01	Passed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, CW	S01_AA01	Passed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, CW	S01_AA01	Passed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, CW	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 [Base Stations / Repeater]

Peak to Average Ratio
The measurement was performed according to ANSI C63.26

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 4K00F3E	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 4K00F3E	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 11K3F3E	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 11K3F3E	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 8K10F1D	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 8K10F1D	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 9K80D7W	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 9K80D7W	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 4K00F3E	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 4K00F3E	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 11K3F3E	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 11K3F3E	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 8K10F1D	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 8K10F1D	S01_AA01	Performed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 9K80D7W	S01_AA01	Performed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 9K80D7W	S01_AA01	Performed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1049, §90.219(e) (ii), KDB 935210 D02 II (p)(3)

Occupied Bandwidth / Input-versus-output Spectrum
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.4

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 4K00F3E	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 4K00F3E	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 11K3F3E	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 11K3F3E	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 8K10F1D	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 8K10F1D	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 0.3 dB < AGC, 9K80D7W	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 0.3 dB < AGC, 9K80D7W	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 4K00F3E	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 4K00F3E	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 11K3F3E	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 11K3F3E	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 8K10F1D	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 8K10F1D	S01_AB01	Passed
Band 851 MHz - 854 MHz, RF downlink, 3 dB > AGC, 9K80D7W	S01_AB01	Passed
Band 806 MHz - 809 MHz, RF uplink, 3 dB > AGC, 9K80D7W	S01_AB01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1051, §90.219(e) (3)

Conducted spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26

Final Result

OP-Mode Frequency Band, Test Frequency, Direction, Signal Type	Setup	FCC
Band 851 MHz - 854 MHz, high, RF downlink, CW	S01_AA01	Passed
Band 806 MHz - 809 MHz, high, RF uplink, CW	S01_AA01	Passed
Band 851 MHz - 854 MHz, low, RF downlink, CW	S01_AA01	Passed
Band 806 MHz - 809 MHz, low, RF uplink, CW	S01_AA01	Passed
Band 851 MHz - 854 MHz, mid, RF downlink, CW	S01_AA01	Passed
Band 806 MHz - 809 MHz, mid, RF uplink, CW	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1053, §90.219(e) (3), KDB 935210 D02 II (p)(3)

Out-of-band emission limits / Intermodulation
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.6 **Final Result**

OP-Mode Frequency Band, Number of Signals, Direction, Input Power, Signal Type	Setup	FCC
Band 851 MHz - 854 MHz, 2, RF downlink, 0.3 dB < AGC, CW	S01_AA01	Performed
Band 806 MHz - 809 MHz, 2, RF uplink, 0.3 dB < AGC, CW	S01_AA01	Performed
Band 851 MHz - 854 MHz, 2, RF downlink, 3 dB > AGC, CW	S01_AA01	Performed
Band 806 MHz - 809 MHz, 2, RF uplink, 3 dB > AGC, CW	S01_AA01	Performed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	KDB 935210 D02 II (p)(2)

Out-of-band rejection
The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Direction	Setup	FCC
Band 851 MHz - 854 MHz, RF downlink	S01_AA01	Passed
Band 806 MHz - 809 MHz, RF uplink	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§90.219 (e) (2)

Noise Figure
The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Direction, Test Step	Setup	FCC
Band 851 MHz - 854 MHz, RF downlink, passband	S01_AA01	Passed
Band 806 MHz - 809 MHz, RF uplink, passband	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1053, §90.219 (e) (3)

Field strength of spurious radiation
The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Test Frequency, Direction	Setup	FCC
Band 851 MHz - 854 MHz, high, RF downlink	S01_AA01	Passed
Band 806 MHz - 809 MHz, high, RF uplink	S01_AA01	Passed
Band 851 MHz - 854 MHz, low, RF downlink	S01_AA01	Passed
Band 806 MHz - 809 MHz, low, RF uplink	S01_AA01	Passed
Band 851 MHz - 854 MHz, mid, RF downlink	S01_AA01	Passed
Band 806 MHz - 809 MHz, mid, RF uplink	S01_AA01	Passed

Band 854 MHz – 862 MHz (Downlink) / 809 MHz – 817 MHz (Uplink)

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations / Repeater]	§2.1046, §90.219 (e) (1) KDB 935210 D02 II (p)(4)

Effective Radiated Power, mean output power and zone enhancer gain
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.5

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, CW	S01_AA01	Passed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, CW	S01_AA01	Passed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, CW	S01_AA01	Passed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, CW	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 [Base Stations / Repeater]

Peak to Average Ratio
The measurement was performed according to ANSI C63.26

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 4K00F3E	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 4K00F3E	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 11K3F3E	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 11K3F3E	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 8K10F1D	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 8K10F1D	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 9K80D7W	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 9K80D7W	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 4K00F3E	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 4K00F3E	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 11K3F3E	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 11K3F3E	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 8K10F1D	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 8K10F1D	S01_AA01	Performed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 9K80D7W	S01_AA01	Performed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 9K80D7W	S01_AA01	Performed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1049, §90.219(e) (ii), KDB 935210 D02 II (p)(3)

Occupied Bandwidth / Input-versus-output Spectrum
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.4

Final Result

OP-Mode Frequency Band, Direction, Input Power, Signal Type	Setup	FCC
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 4K00F3E	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 4K00F3E	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 11K3F3E	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 11K3F3E	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 8K10F1D	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 8K10F1D	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 0.3 dB < AGC, 9K80D7W	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 0.3 dB < AGC, 9K80D7W	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 4K00F3E	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 4K00F3E	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 11K3F3E	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 11K3F3E	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 8K10F1D	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 8K10F1D	S01_AB01	Passed
Band 854 MHz – 862 MHz, RF downlink, 3 dB > AGC, 9K80D7W	S01_AB01	Passed
Band 809 MHz - 817 MHz, RF uplink, 3 dB > AGC, 9K80D7W	S01_AB01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1051, §90.219(e) (3)

Conducted spurious emissions at antenna terminals
The measurement was performed according to ANSI C63.26

Final Result

OP-Mode Frequency Band, Test Frequency, Direction, Signal Type	Setup	FCC
Band 854 MHz – 862 MHz, high, RF downlink, CW	S01_AA01	Passed
Band 809 MHz - 817 MHz, high, RF uplink, CW	S01_AA01	Passed
Band 854 MHz – 862 MHz, low, RF downlink, CW	S01_AA01	Passed
Band 809 MHz - 817 MHz, low, RF uplink, CW	S01_AA01	Passed
Band 854 MHz – 862 MHz, mid, RF downlink, CW	S01_AA01	Passed
Band 809 MHz - 817 MHz, mid, RF uplink, CW	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1053, §90.219(e) (3), KDB 935210 D02 II (p)(3)

Out-of-band emission limits / Intermodulation
The measurement was performed according to ANSI C63.26, KDB 935210 D05 v01r03: 3.6 **Final Result**

OP-Mode Frequency Band, Number of Signals, Direction, Input Power, Signal Type	Setup	FCC
Band 854 MHz – 862 MHz, 2, RF downlink, 0.3 dB < AGC, CW	S01_AA01	Performed
Band 809 MHz - 817 MHz, 2, RF uplink, 0.3 dB < AGC, CW	S01_AA01	Performed
Band 854 MHz – 862 MHz, 2, RF downlink, 3 dB > AGC, CW	S01_AA01	Performed
Band 809 MHz - 817 MHz, 2, RF uplink, 3 dB > AGC, CW	S01_AA01	Performed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	KDB 935210 D02 II (p)(2)

Out-of-band rejection
The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Direction	Setup	FCC
Band 854 MHz – 862 MHz, RF downlink	S01_AA01	Passed
Band 809 MHz - 817 MHz, RF uplink	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§90.219 (e) (2)

Noise Figure
The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Direction, Test Step	Setup	FCC
Band 854 MHz – 862 MHz, RF downlink, passband	S01_AA01	Passed
Band 809 MHz - 817 MHz, RF uplink, passband	S01_AA01	Passed

47 CFR CHAPTER I FCC PART 90 Subpart I [Base Stations/Repeater]	§2.1053, §90.219 (e) (3)

Field strength of spurious radiation
The measurement was performed according to ANSI C63.26 **Final Result**

OP-Mode Frequency Band, Test Frequency, Direction	Setup	FCC
Band 854 MHz – 862 MHz, high, RF downlink	S01_AA01	Passed
Band 809 MHz - 817 MHz, high, RF uplink	S01_AA01	Passed
Band 854 MHz – 862 MHz, low, RF downlink	S01_AA01	Passed
Band 809 MHz - 817 MHz, low, RF uplink	S01_AA01	Passed
Band 854 MHz – 862 MHz, mid, RF downlink	S01_AA01	Passed
Band 809 MHz - 817 MHz, mid, RF uplink	S01_AA01	Passed

N/A: Not applicable
N/P: Not performed

The test case frequency stability was not performed, since the EUT is not equipped with signal processing capabilities.

Report version control			
Version	**Release date**	**Change Description**	**Version validity**
initial	2021-01-19	--	valid
-	-	-	-

This report covers only the requirements of FCC part §90.219 for this EUT.

(responsible for accreditation scope)
Dipl.-Ing. Marco Kullik

(responsible for testing and report)
Dipl.-Ing. Daniel Gall

7 layers GmbH, Borsigstr. 11
40880 Ratingen, Germany
Phone +49 (0)2102 749 0

2 ADMINISTRATIVE DATA

2.1 TESTING LABORATORY

Company Name:	7layers GmbH
Address:	Borsigstr. 11 40880 Ratingen Germany

The test facility is accredited by the following accreditation organisation:

Laboratory accreditation no:	DAkkS D-PL-12140-01-00
ISED CAB Identifier	DE0007; ISED#:3699A
Responsible for accreditation scope:	Dipl.-Ing. Marco Kullik

2.2 PROJECT DATA

Responsible for testing and report:	Dipl.-Ing. Daniel Gall
Employees who performed the tests:	documented internally at 7Layers
Date of Report:	2021-01-19
Testing Period:	2019-08-23 to 2020-01-28 2020-06-26 to 2020-07-02 for post tests and supplemental tests

2.3 APPLICANT DATA

Company Name:	Commscope Andrew Wireless Systems GmbH
Address:	Industriering 10 86675 Buchdorf Germany
Contact Person:	Mr. Frank Futter

2.4 MANUFACTURER DATA

Company Name:	please see applicant data
Address:	
Contact Person:	

3 TEST OBJECT DATA

3.1 GENERAL EUT DESCRIPTION

Kind of Device product description	Cellular Repeater
Product name	Cellular Repeater
Type	PSR 7/8 A
Declared EUT data by the supplier	
General Product Description	The EUT is an industrial signal booster supporting the following: Downlink/Uplink Band 769 – 775 MHz/799 – 805 MHz Band 851 – 854 MHz/806 – 809 MHz Band 854 – 862 MHz/809 – 817 MHz
Booster Type	Industrial Signal Booster
Voltage Type	AC
Voltage Level	88 – 264 V, 47 – 63 Hz
Maximum Output Donor Port [Uplink]	Band 799 – 805 MHz: 26.7 dBm Band 806 – 809 MHz: 26.8 dBm Band 809 – 817 MHz: 26.8 dBm
Maximum Output Server Port [Downlink]	Band 769 – 775 MHz: 32.7 dBm Band 851 – 854 MHz: 32.4 dBm Band 854 – 862 MHz: 32.7 dBm
Maximum Gain [Uplink]	Band 799 – 805 MHz: 90.2 dB Band 806 – 809 MHz: 91.7 dB Band 809 – 817 MHz: 90.9 dB
Maximum Gain [Downlink]	Band 769 – 775 MHz: 91.0 dB Band 851 – 854 MHz: 89.4 dB Band 854 – 862 MHz: 90.8 dB

The main components of the EUT are listed and described in chapter 3.2 EUT Main components.

3.2 EUT MAIN COMPONENTS

Sample Name	Sample Code	Description
EUT A	DE1277008aa01	FCC sample
Sample Parameter	**Value**	
Serial Number	190729AA0005	
HW Version	7831758-0011	
SW Version	SW 01.00.01.08	
Comment	Used for all tests except: “Occupied Bandwidth/ Input-versus-output Spectrum”	

Sample Name	Sample Code	Description
EUT B	DE1277008ab01	FCC sample
Sample Parameter	**Value**	
Serial Number	190805AA0006	
HW Version	7831758-0001	
SW Version	SW 01.00.02.06	
Comment	Used for tests: “Occupied Bandwidth/ Input-versus-output Spectrum”	

NOTE: The short description is used to simplify the identification of the EUT in this test report.

3.3 ANCILLARY EQUIPMENT

For the purposes of this test report, ancillary equipment is defined as equipment which is used in conjunction with the EUT to provide operational and control features to the EUT. It is necessary to configure the system in a typical fashion, as a customer would normally use it. But nevertheless Ancillary Equipment can influence the test results.

Device	Details (Manufacturer, Type Model, OUT Code)	Description
-	-	-

3.4 AUXILIARY EQUIPMENT

For the purposes of this test report, auxiliary equipment is defined as equipment which is used temporarily to enable operational and control features especially used for the tests of the EUT which is not used during normal operation or equipment that is used during the tests in combination with the EUT but is not subject of this test report. It is necessary to configure the system in a typical fashion, as a customer would normally use it.
But nevertheless Auxiliary Equipment can influence the test results.

Device	Details (Manufacturer, HW, SW, S/N)	Description
-	-	-

3.5 EUT SETUPS

This chapter describes the combination of EUTs and equipment used for testing. The rationale for selecting the EUTs, ancillary and auxiliary equipment and interconnecting cables, is to test a representative configuration meeting the requirements of the referenced standards.

Setup	Combination of EUTs	Description and Rationale
S01_AA01	EUT A	Setup for all tests except for Occupied Bandwidth/ Input-versus-output Spectrum
S01_AB01	EUT B	Setup for test Occupied Bandwidth/ Input-versus-output Spectrum

3.6 OPERATING MODES

This chapter describes the operating modes of the EUTs used for testing.

3.6.1 TEST CHANNELS

Band [MHz]	Direction	Lower Frequency Band Edge [MHz]	Upper Frequency Band Edge [MHz]	Center Frequency [MHz]	Port
769 – 775	downlink	769.0125	774.9875	772.0000	Donor
851 – 854	downlink	851.0125	853.9875	852.5000	Donor
854 - 862	downlink	854.0125	861.9875	858.0000	Donor
799 – 805	uplink	799.0125	804.9875	802.0000	ANT
806 – 809	uplink	806.0125	808.9875	807.5000	ANT
809 – 817	uplink	809.0125	816.9875	813.0000	ANT

3.6.2 AUTOMATIC GAIN CONTROL LEVELS

AGC Levels							
Band [MHz]	**Direction**	**Emission Designator**	**AGC Start Pin [dBm]**	**AGC Start Pin -0.3 dB [dBm]**	**AGC Start Pin +3 dB [dBm]**	**Frequency [MHz]**	**Frequency**
769 – 775	downlink	CW	-57.4	-57.7	-54.5	772.0000	f_m
769 – 775	downlink	CW	-57.2	-57.5	-54.2	769.0125	f_{low}
769 – 775	downlink	CW	-56.3	-56.6	-53.3	774.9875	f_{high}
769 – 775	downlink	CW	-58.0	-58.3	-55.1	771.8650	f_0
851 – 854	downlink	CW	-56.6	-56.9	-53.6	852.5000	f_m
851 – 854	downlink	CW	-55.6	-55.9	-52.6	851.0125	f_{low}
851 – 854	downlink	CW	-57.4	-57.7	-54.5	853.9875	f_{high}
851 – 854	downlink	CW	-56.8	-57.1	-53.8	852.9035	f_0
854 - 862	downlink	CW	-56.8	-57.1	-53.8	858.0000	f_m
854 - 862	downlink	CW	-57.2	-57.5	-54.3	854.0125	f_{low}
854 - 862	downlink	CW	-57.0	-57.3	-54.0	861.9875	f_{high}
854 - 862	downlink	CW	-58.2	-58.5	-55.2	856.8011	f_0

AGC Levels							
Band [MHz]	**Direction**	**Emission Designator**	**AGC Start Pin [dBm]**	**AGC Start Pin -0.3 dB [dBm]**	**AGC Start Pin +3 dB [dBm]**	**Frequency [MHz]**	**Frequency**
799 – 805	uplink	CW	-62.8	-63.1	-59.9	802.0000	f_m
799 – 805	uplink	CW	-62.8	-63.1	-59.9	799.0125	f_{low}
799 – 805	uplink	CW	-60.9	-61.2	-57.9	804.9875	f_{high}
799 – 805	uplink	CW	-63.2	-63.5	-60.3	799.5909	f_0
806 – 809	uplink	CW	-64.1	-64.4	-61.1	807.5000	f_m
806 – 809	uplink	CW	-63.6	-63.9	-60.7	806.0125	f_{low}
806 – 809	uplink	CW	-63.5	-63.8	-60.7	808.9875	f_{high}
806 – 809	uplink	CW	-64.6	-64.9	-61.6	806.7947	f_0
809 – 817	uplink	CW	-62.2	-62.5	-59.3	813.0000	f_m
809 – 817	uplink	CW	-63.3	-63.6	-60.4	809.0125	f_{low}
809 – 817	uplink	CW	-63.6	-63.9	-60.7	816.9875	f_{high}
809 – 817	uplink	CW	-63.8	-64.1	-60.8	816.8350	f_0

3.7 PRODUCT LABELLING

3.7.1 ISED ID LABEL

Please refer to the documentation of the applicant.

3.7.2 LOCATION OF THE LABEL ON THE EUT

Please refer to the documentation of the applicant.

4 TEST RESULTS

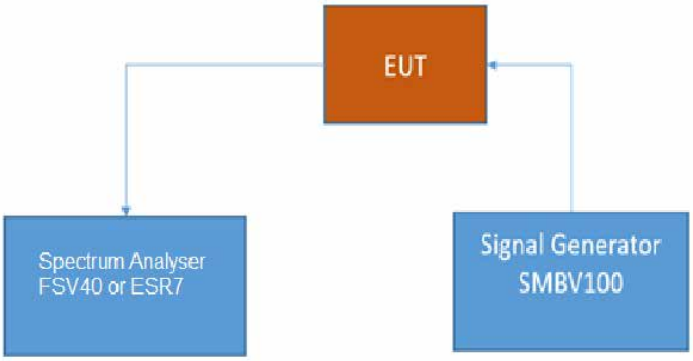
4.1 EFFECTIVE RADIATED POWER, MEAN OUTPUT POWER AND ZONE ENHANCER GAIN

Standard FCC Part 90, §90.219

The test was performed according to:
ANSI C63.26, KDB 935210 D05 v01r03: 3.5

4.1.1 TEST DESCRIPTION

The EUT was connected to the test setup according to the following diagram:



The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyser settings can be directly found in the measurement diagrams.

4.1.2 TEST REQUIREMENTS / LIMITS

Part 90, Subpart I

§90.219 Use of signal boosters.

This section contains technical and operational rules allowing the use of signal boosters in the Private Land Mobile Radio Services (PLMRS). Rules for signal booster operation in the Commercial Mobile Radio Services under part 90 are found in §20.21 of this chapter.
.....

(e) *Device Specifications.* In addition to the general rules for equipment certification in §90.203(a)(2) and part 2, subpart J of this chapter, a signal booster must also meet the rules in this paragraph.

(1) The output power capability of a signal booster must be designed for deployments providing a radiated power not exceeding 5 Watts ERP for each retransmitted channel.

4.1.3 TEST PROTOCOL

Band 769 MHz – 775 MHz, downlink							
Emission Designator	**Input Power**	**Frequency f_0 [MHz]**	**Input Power [dBm]**	**Maximum Average Output Power [dBm]**	**Limit Average Output Power [dBm]**	**Margin to Limit [dB]**	**Gain [dB]**
CW	0.3 dB < AGC	771.8650	-58.3	32.7	37.0	4.3	91.0
CW	3 dB > AGC	771.8650	-55.1	32.7	37.0	4.3	87.8

Band 851 MHz – 854 MHz, downlink							
Emission Designator	**Input Power**	**Frequency f_0 [MHz]**	**Input Power [dBm]**	**Maximum Average Output Power [dBm]**	**Limit Average Output Power [dBm]**	**Margin to Limit [dB]**	**Gain [dB]**
CW	0.3 dB < AGC	852.9035	-57.1	32.3	37.0	4.7	89.4
CW	3 dB > AGC	852.9035	-53.8	32.4	37.0	4.6	86.2

Band 854 MHz – 862 MHz, downlink							
Emission Designator	**Input Power**	**Frequency f_0 [MHz]**	**Input Power [dBm]**	**Maximum Average Output Power [dBm]**	**Limit Average Output Power [dBm]**	**Margin to Limit [dB]**	**Gain [dB]**
CW	0.3 dB < AGC	856.8011	-58.5	32.3	37.0	4.7	90.8
CW	3 dB > AGC	856.8011	-55.2	32.7	37.0	4.3	87.9

Band 799 MHz – 805 MHz, uplink							
Emission Designator	Input Power	Frequency f_0 [MHz]	Input Power [dBm]	Maximum Average Output Power [dBm]	Limit Average Output Power [dBm]	Margin to Limit [dB]	Gain [dB]
CW	0.3 dB < AGC	799.5909	-63.5	26.7	37.0	10.3	90.2
CW	3 dB > AGC	799.5909	-60.3	26.5	37.0	10.5	86.8

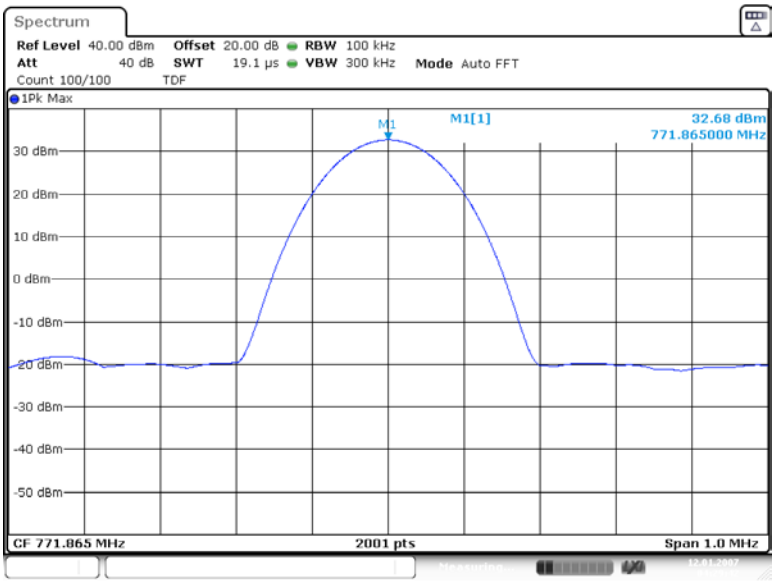
Band 806 MHz – 809 MHz, uplink							
Emission Designator	Input Power	Frequency f_0 [MHz]	Input Power [dBm]	Maximum Average Output Power [dBm]	Limit Average Output Power [dBm]	Margin to Limit [dB]	Gain [dB]
CW	0.3 dB < AGC	806.7947	-64.9	26.8	37.0	10.2	91.7
CW	3 dB > AGC	806.7947	-61.6	26.5	37.0	10.5	88.1

Band 809 MHz – 817 MHz, uplink							
Emission Designator	Input Power	Frequency f_0 [MHz]	Input Power [dBm]	Maximum Average Output Power [dBm]	Limit Average Output Power [dBm]	Margin to Limit [dB]	Gain [dB]
CW	0.3 dB < AGC	816.8350	-64.1	26.8	37.0	10.2	90.9
CW	3 dB > AGC	816.8350	-60.8	26.4	37.0	10.6	87.2

Remark: Please see next sub-clause for the measurement plot.

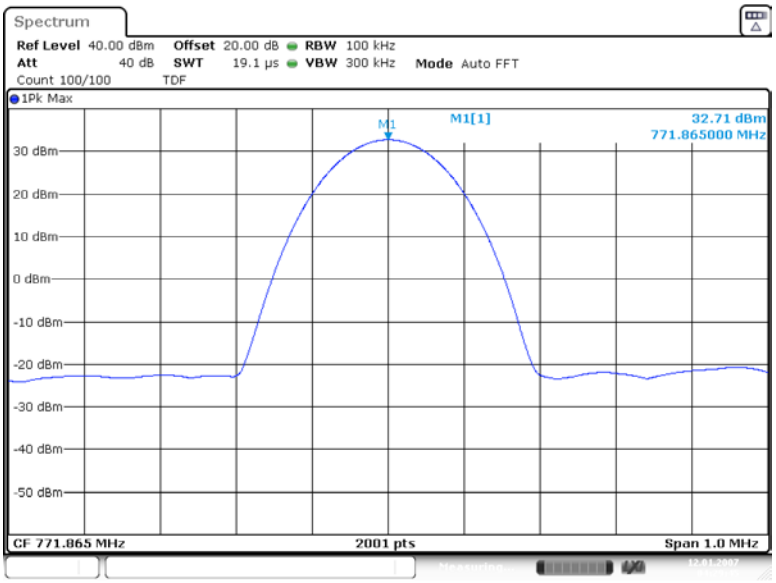
4.1.4 MEASUREMENT PLOTS

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, CW at f_0



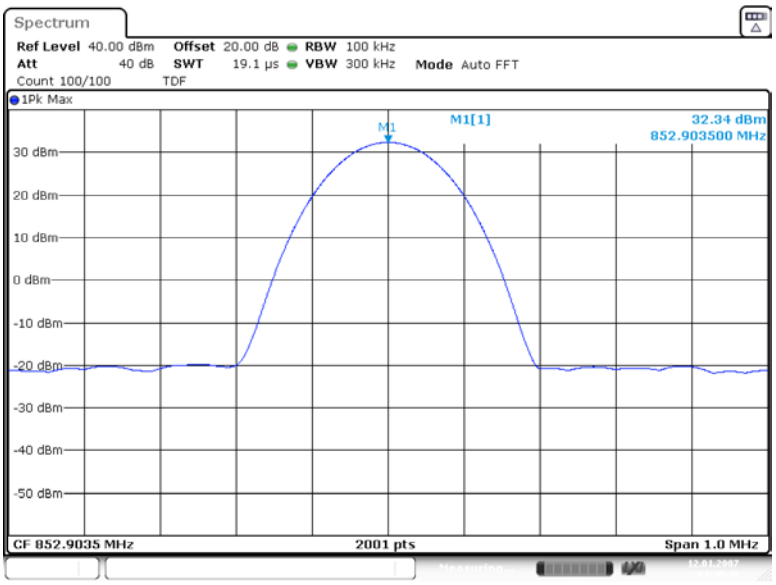
PowerCW-0.3; 771.8650000M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC, CW at f_0



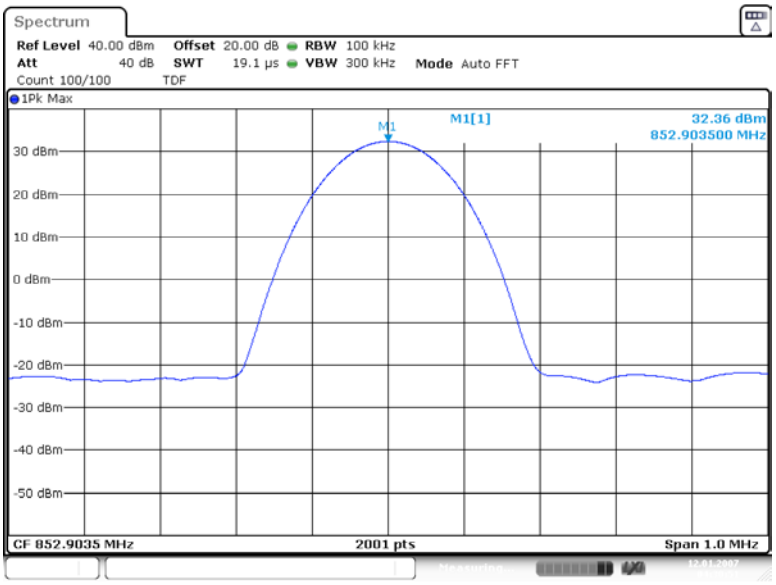
PowerCW+3; 771.8650000M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, CW at $\mathbf{f_0}$



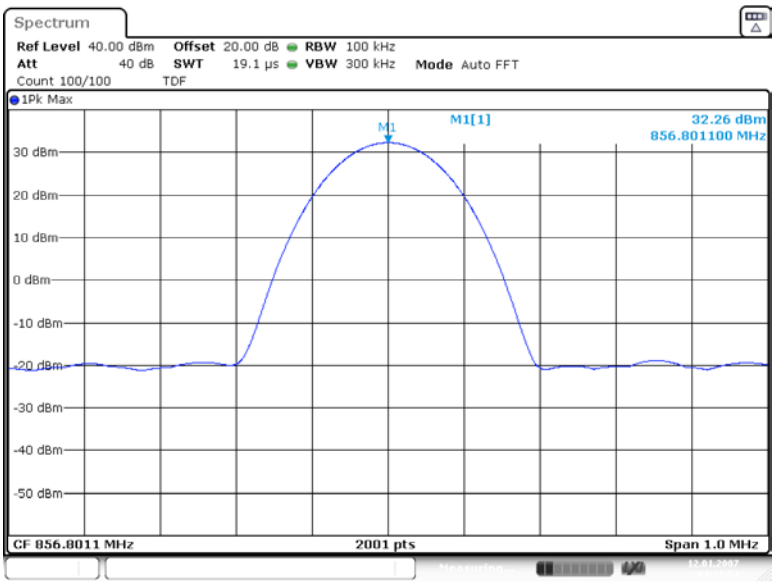
PowerCW-0.3; 852.9035000M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC, CW at $\mathbf{f_0}$



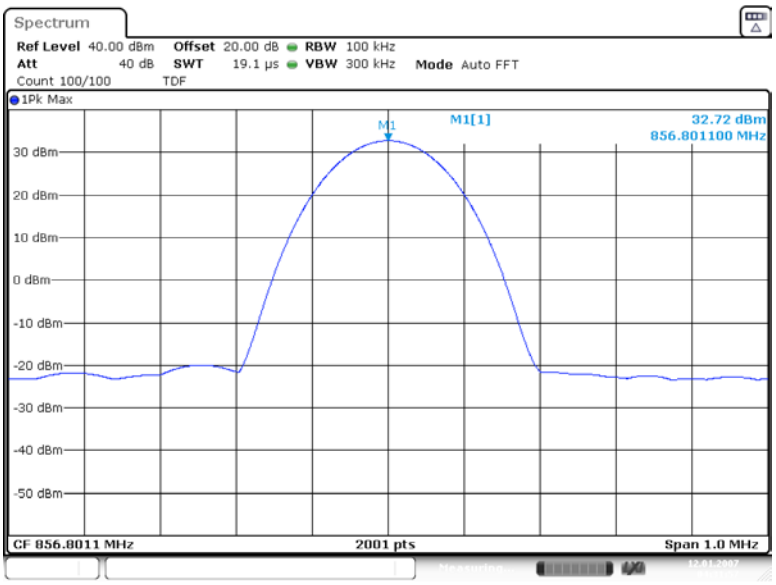
PowerCW+3; 852.9035000M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, CW at f_0



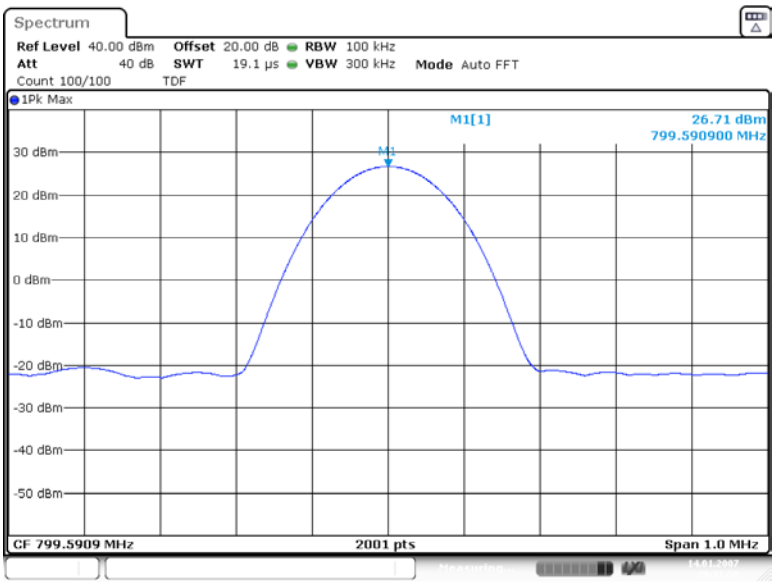
PowerCW-0.3; 856.8011000M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC, CW at f_0



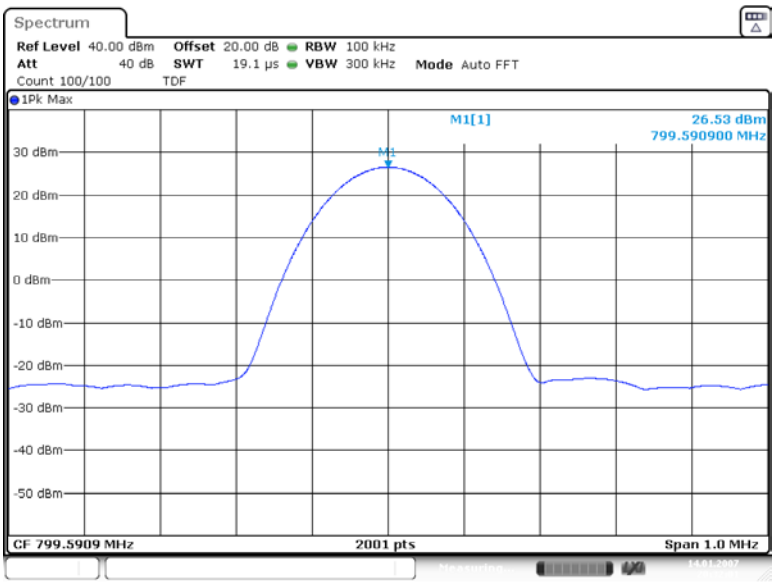
PowerCW+3; 856.8011000M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, CW at f_0



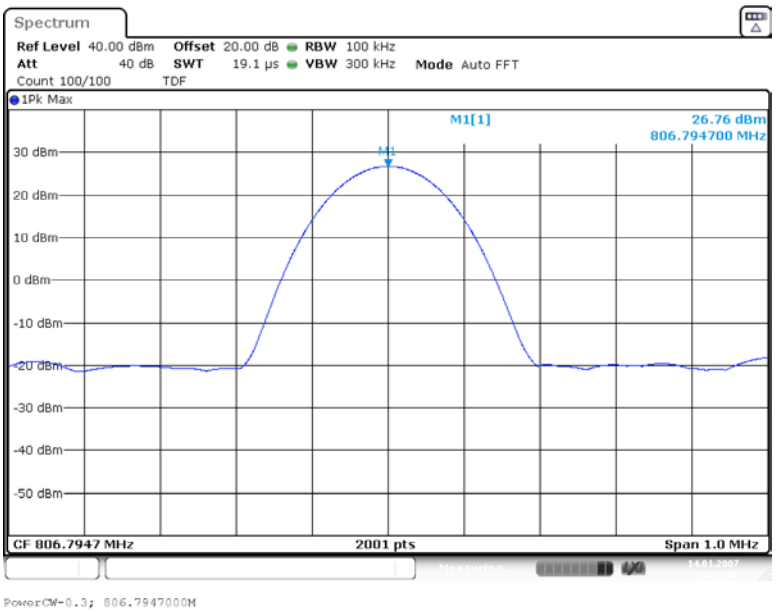
PowerCW-0.3; 799.5909000M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC, CW at f_0

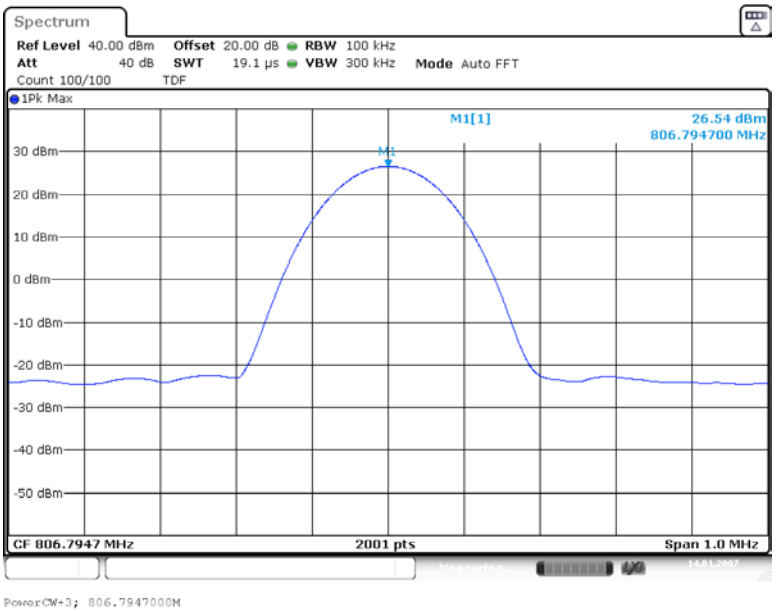


PowerCW+3; 799.5909000M

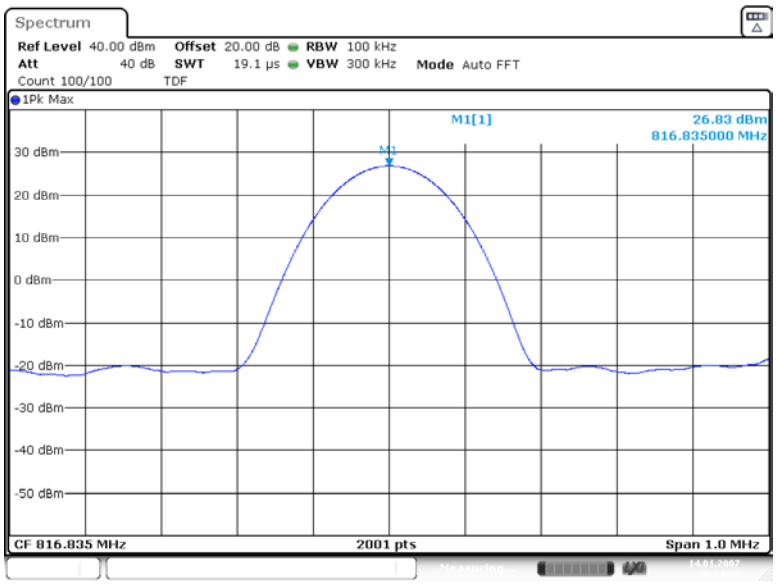
Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, CW at $\mathbf{f_0}$



Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC, CW at $\mathbf{f_0}$

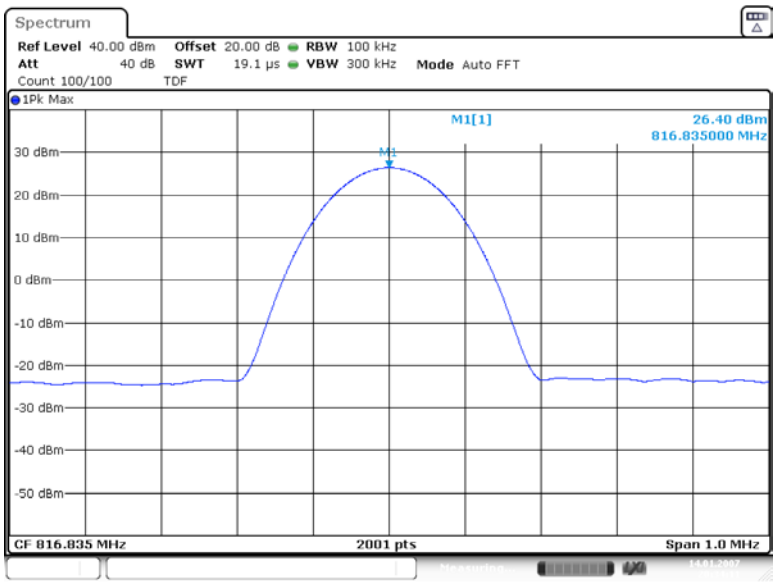


Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, CW at f_0



PowerCW-0.3; 816.8350000M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC, CW at f_0



PowerCW+3; 816.8350000M

4.1.5 TEST EQUIPMENT USED

- FCC cond. Test lab, BV Nbg

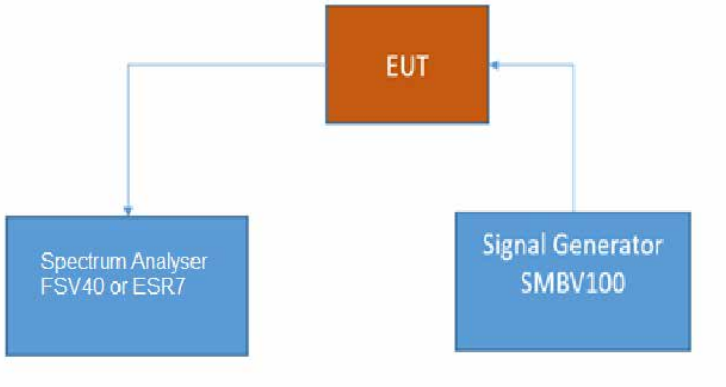
4.2 PEAK TO AVERAGE RATIO

Standard -

The test was performed according to:
ANSI C63.26

4.2.1 TEST DESCRIPTION

The EUT was connected to the test setup according to the following diagram:



The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyser settings can be directly found in the measurement diagrams.

4.2.2 TEST REQUIREMENTS / LIMITS

There is no requirement for the Peak-to-Average value in the applicable rule parts.

4.2.3 TEST PROTOCOL

Band 769 MHz – 775 MHz, downlink				
Emission Designator	**Input Power**	**Frequency [MHz]**	**Input Power [dBm]**	**PAPR [dB]**
4K00F3E	0.3 dB < AGC	772.0000	-57.7	0.3
4K00F3E	3 dB > AGC	772.0000	-54.5	0.3
11K3F3E	0.3 dB < AGC	769.0125	-57.5	0.3
11K3F3E	3 dB > AGC	774.9875	-53.3	0.3
8K10F1D	0.3 dB < AGC	771.8650	-58.3	0.2
8K10F1D	3 dB > AGC	771.8650	-55.1	0.2
9K80D7W	0.3 dB < AGC	772.0000	-57.7	2.4
9K80D7W	3 dB > AGC	769.0125	-54.2	2.4
16K0F3E	0.3 dB < AGC	769.0125	-57.5	0.3
16K0F3E	3 dB > AGC	769.0125	-54.2	0.3

Band 851 MHz – 854 MHz, downlink				
Emission Designator	**Input Power**	**Frequency [MHz]**	**Input Power [dBm]**	**PAPR [dB]**
4K00F3E	0.3 dB < AGC	852.9035	-57.1	0.3
4K00F3E	3 dB > AGC	851.0125	-52.6	0.3
11K3F3E	0.3 dB < AGC	851.0125	-55.9	0.3
11K3F3E	3 dB > AGC	851.0125	-52.6	0.3
8K10F1D	0.3 dB < AGC	851.0125	-55.9	0.2
8K10F1D	3 dB > AGC	851.0125	-52.6	0.2
9K80D7W	0.3 dB < AGC	851.0125	-55.9	2.4
9K80D7W	3 dB > AGC	851.0125	-52.6	2.4

Band 854 MHz – 862 MHz, downlink				
Emission Designator	**Input Power**	**Frequency [MHz]**	**Input Power [dBm]**	**PAPR [dB]**
4K00F3E	0.3 dB < AGC	856.8011	-58.5	0.3
4K00F3E	3 dB > AGC	856.8011	-55.2	0.3
11K3F3E	0.3 dB < AGC	858.0000	-57.1	0.3
11K3F3E	3 dB > AGC	858.0000	-53.8	0.3
8K10F1D	0.3 dB < AGC	856.8011	-58.5	0.2
8K10F1D	3 dB > AGC	854.0125	-54.3	0.2
9K80D7W	0.3 dB < AGC	858.0000	-57.1	2.3
9K80D7W	3 dB > AGC	861.9875	-54.0	2.3

Band 799 MHz – 805 MHz, uplink				
Emission Designator	**Input Power**	**Frequency [MHz]**	**Input Power [dBm]**	**PAPR [dB]**
4K00F3E	0.3 dB < AGC	799.0125	-63.1	0.3
4K00F3E	3 dB > AGC	799.0125	-59.9	0.3
11K3F3E	0.3 dB < AGC	802.0000	-59.9	0.3
11K3F3E	3 dB > AGC	804.9875	-57.9	0.3
8K10F1D	0.3 dB < AGC	799.0125	-63.1	0.2
8K10F1D	3 dB > AGC	799.0125	-59.9	0.2
9K80D7W	0.3 dB < AGC	799.0125	-63.1	2.4
9K80D7W	3 dB > AGC	804.9875	-57.9	2.7
16K0F3E	0.3 dB < AGC	799.0125	-63.1	0.3
16K0F3E	3 dB > AGC	804.9875	-57.9	0.3

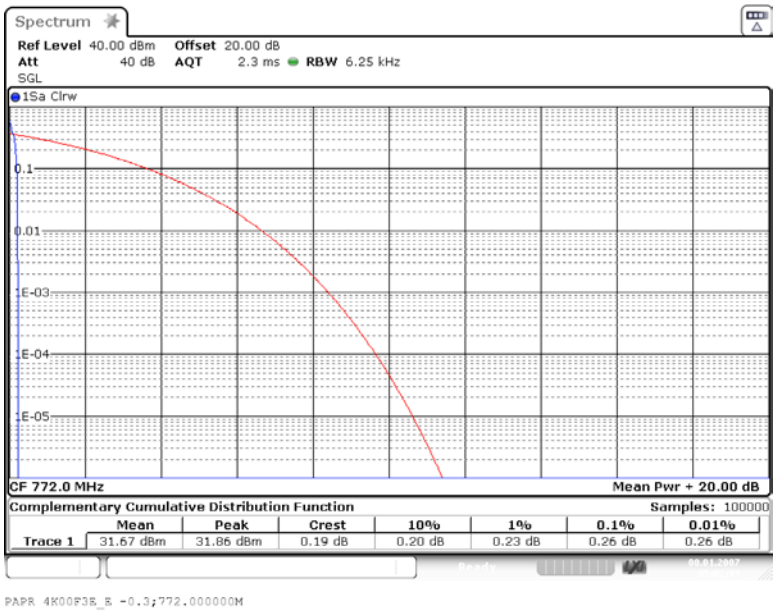
Band 806 MHz – 809 MHz, uplink				
Emission Designator	**Input Power**	**Frequency [MHz]**	**Input Power [dBm]**	**PAPR [dB]**
4K00F3E	0.3 dB < AGC	808.9875	-63.8	0.3
4K00F3E	3 dB > AGC	808.9875	-60.7	0.3
11K3F3E	0.3 dB < AGC	806.0125	-63.9	0.3
11K3F3E	3 dB > AGC	806.0125	-60.7	0.3
8K10F1D	0.3 dB < AGC	808.9875	-63.8	0.2
8K10F1D	3 dB > AGC	808.9875	-60.7	0.2
9K80D7W	0.3 dB < AGC	806.0125	-63.9	2.4
9K80D7W	3 dB > AGC	806.0125	-60.7	2.4

Band 809 MHz – 817 MHz, uplink				
Emission Designator	**Input Power**	**Frequency [MHz]**	**Input Power [dBm]**	**PAPR [dB]**
4K00F3E	0.3 dB < AGC	809.0125	-63.6	0.3
4K00F3E	3 dB > AGC	809.0125	-60.4	0.2
11K3F3E	0.3 dB < AGC	813.0000	-62.5	0.3
11K3F3E	3 dB > AGC	816.9875	-60.7	0.3
8K10F1D	0.3 dB < AGC	809.0125	-63.6	0.2
8K10F1D	3 dB > AGC	816.9875	-60.7	0.2
9K80D7W	0.3 dB < AGC	813.0000	-62.5	2.4
9K80D7W	3 dB > AGC	813.0000	-59.3	2.4

Remark: Please see next sub-clause for the measurement plot.

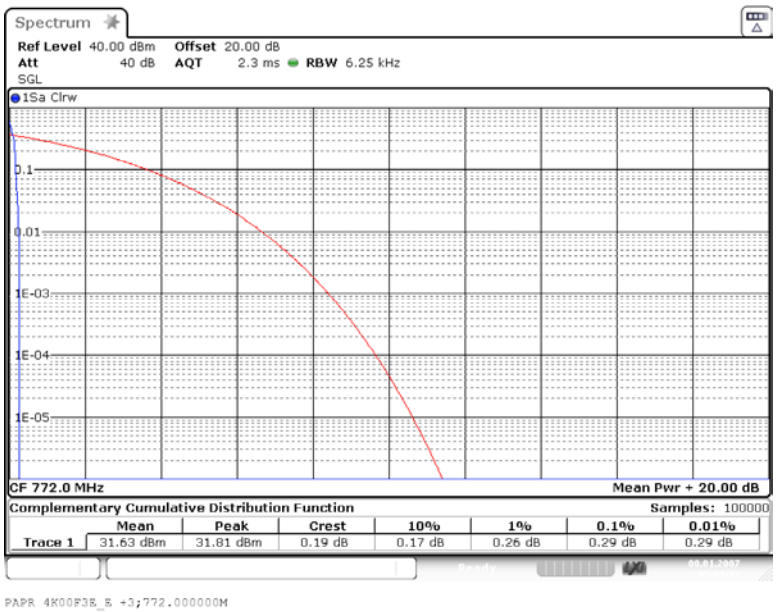
4.2.4 MEASUREMENT PLOTS

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 4K00F3E



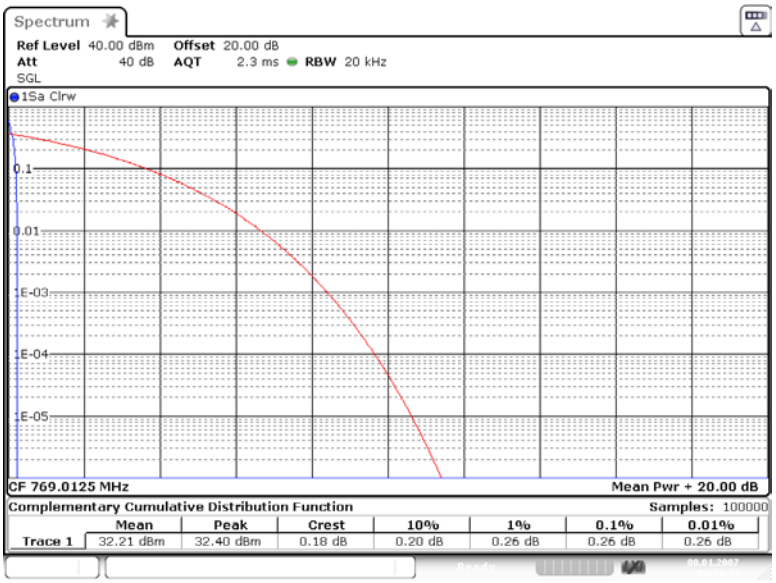
PAPR 4K00F3E_E -0.3;772.000000M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 4K00F3E



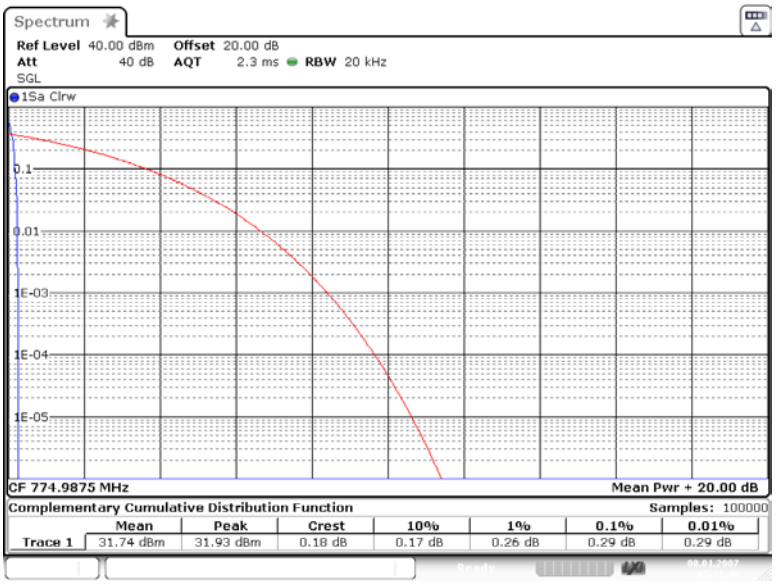
PAPR 4K00F3E_E +3;772.000000M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 11K3F3E



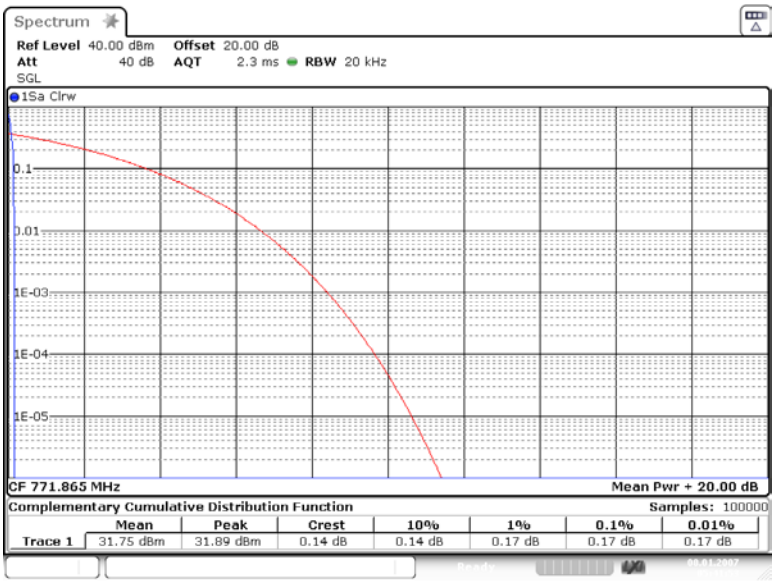
PAPR 11K3F3E_D -0.3;769.012500M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 11K3F3E



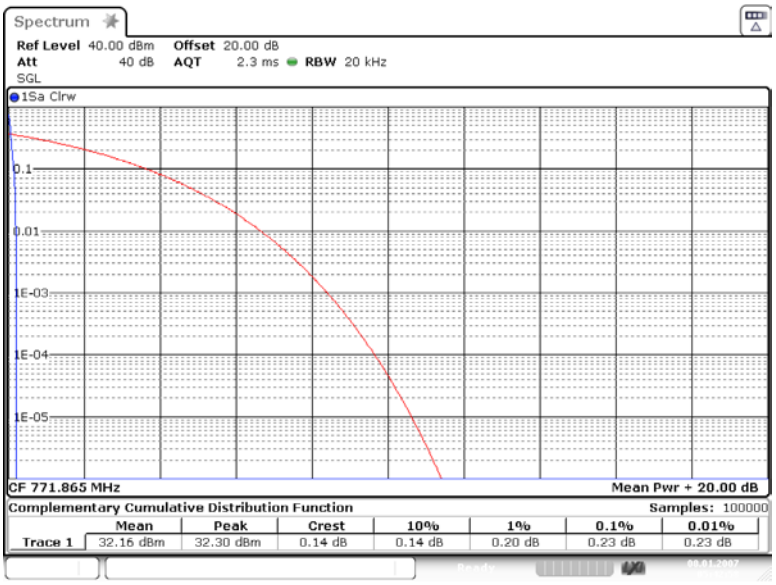
PAPR 11K3F3E_D +3;774.987500M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 8K10F1D



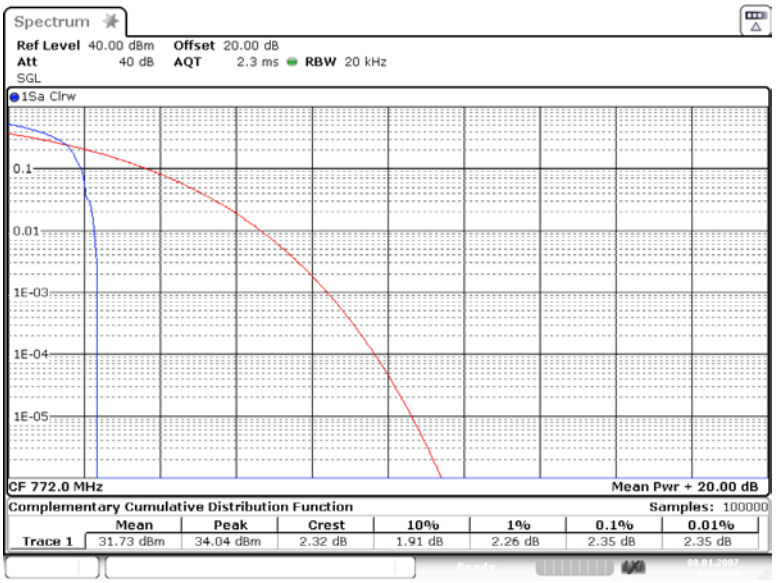
PAPR 8K10F1D_D -0.3;771.865000M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 8K10F1D



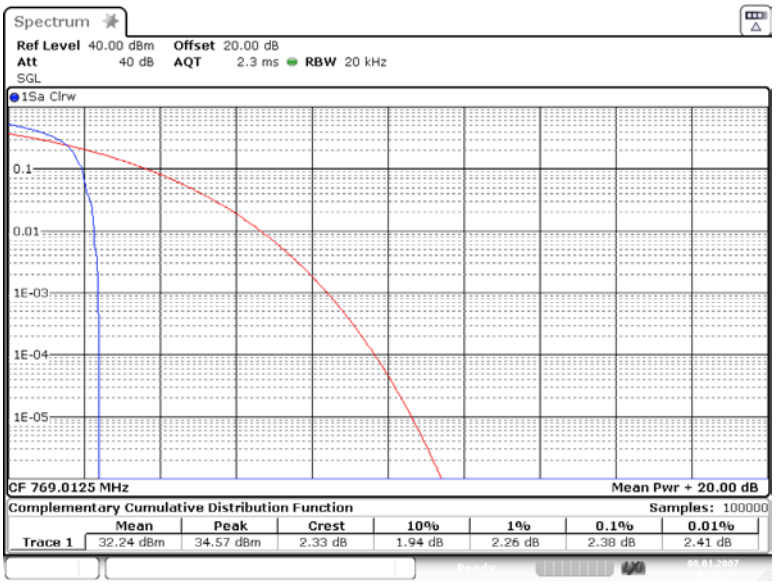
PAPR 8K10F1D_D +3;771.865000M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 9K80D7W



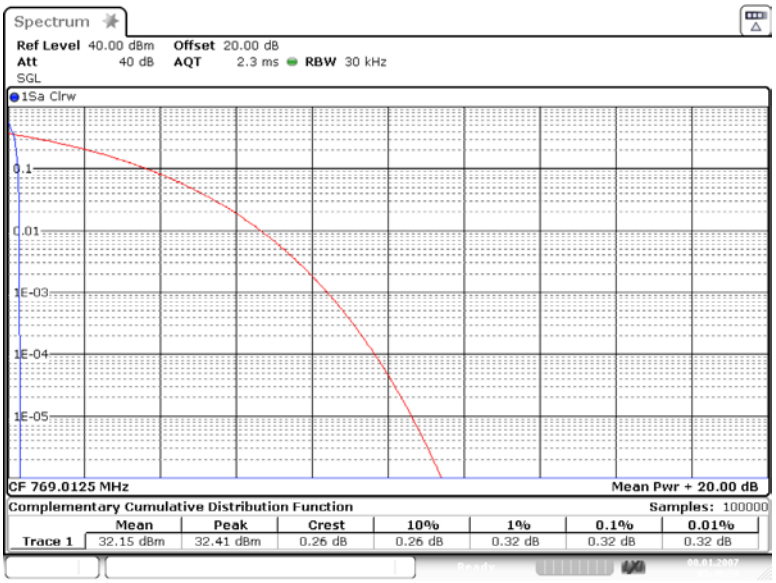
PAPR 9K80D7W_D -0.3;772.000000M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 9K80D7W



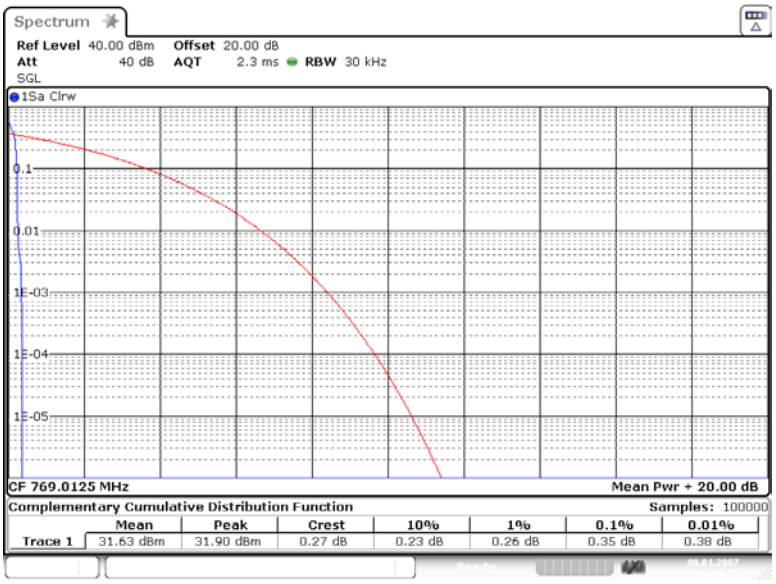
PAPR 9K80D7W_D +3;769.012500M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 16K0F3E



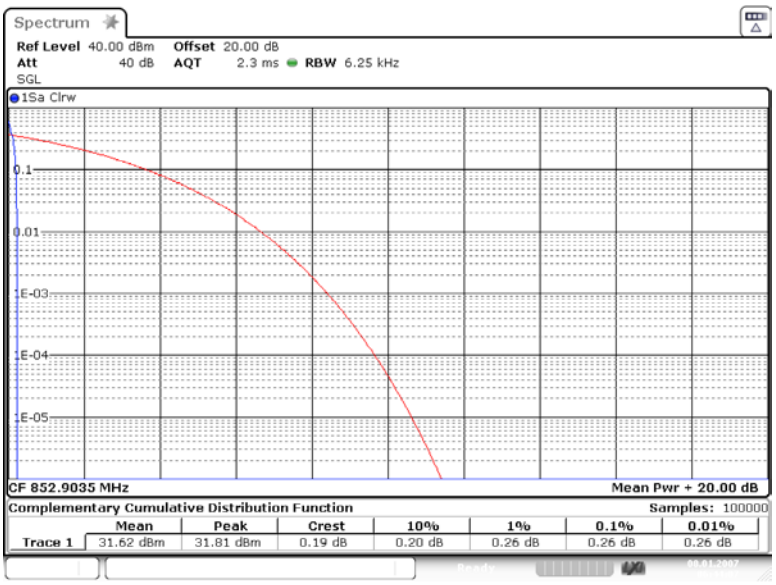
PAPR 16K0F3E_C -0.3;769.012500M

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 16K0F3E



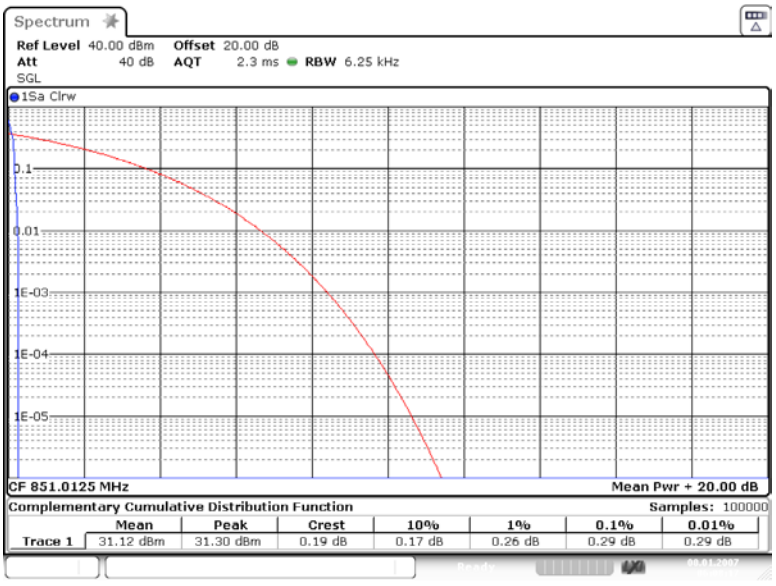
PAPR 16K0F3E_C +3;769.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 4K00F3E



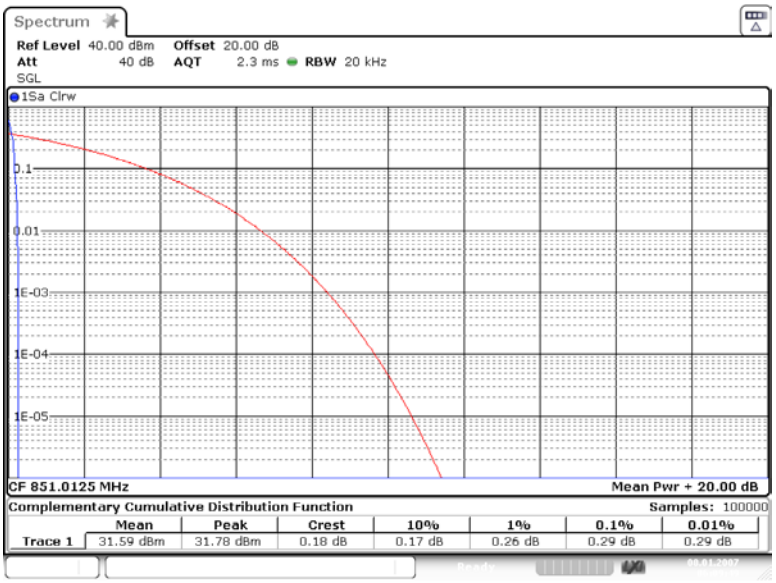
PAPR 4K00F3E_H -0.3;852.903500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 4K00F3E



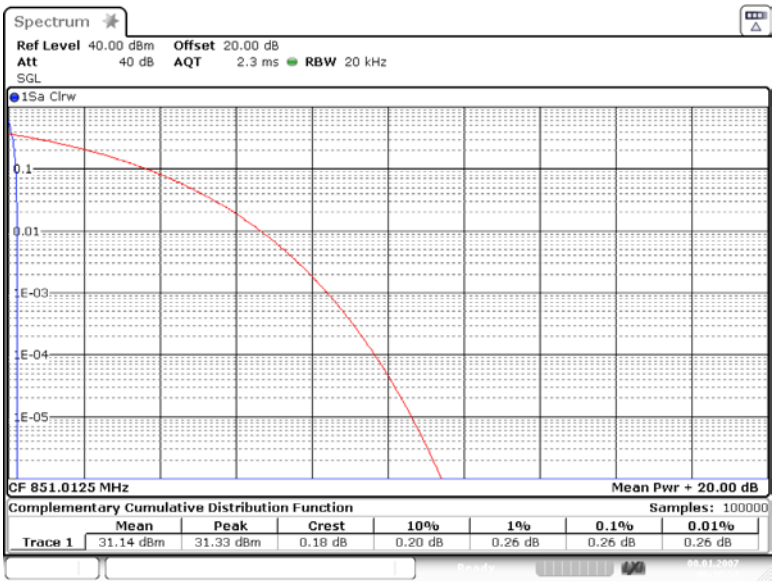
PAPR 4K00F3E_H +3;851.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 11K3F3E



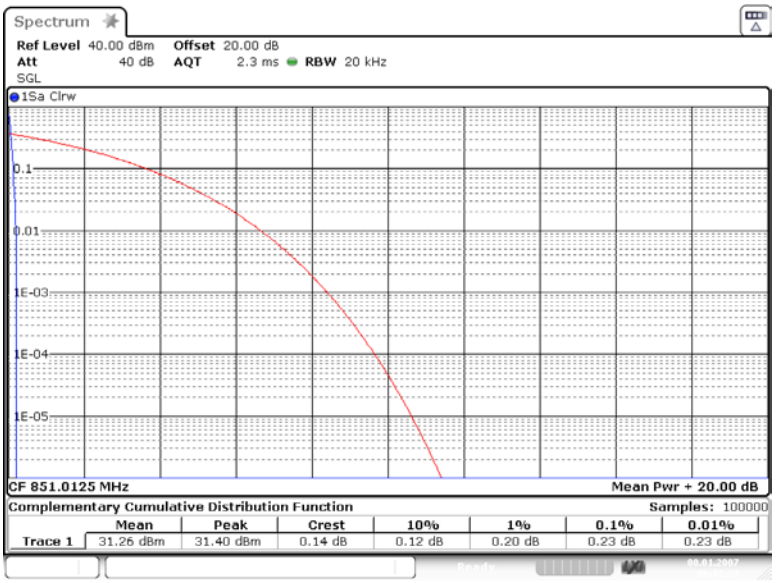
PAPR 11K3F3E_H -0.3;851.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 11K3F3E



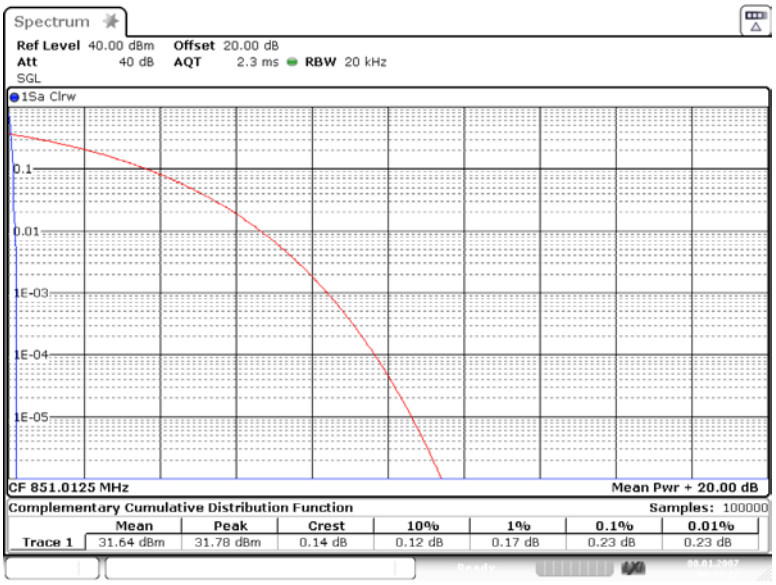
PAPR 11K3F3E_H +3;851.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 8K10F1D



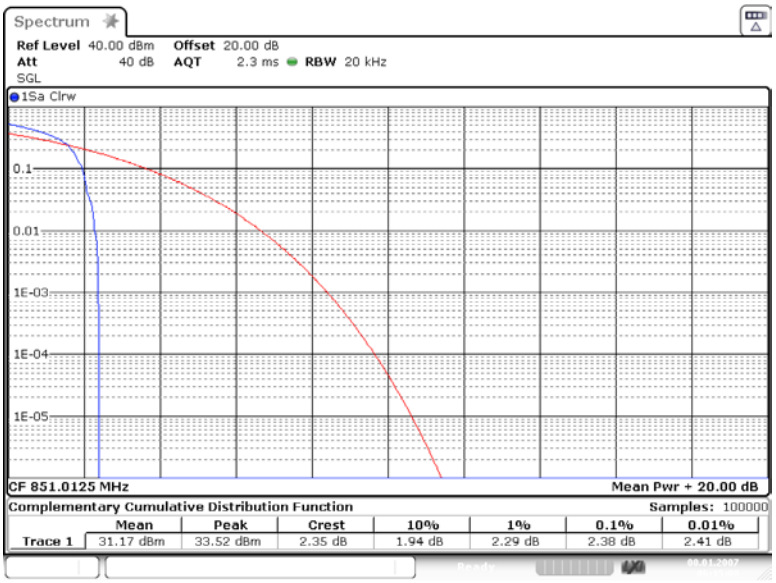
PAPR 8K10F1D_H -0.3;851.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
nput Power = 3 dB > AGC Emission Designator = 8K10F1D



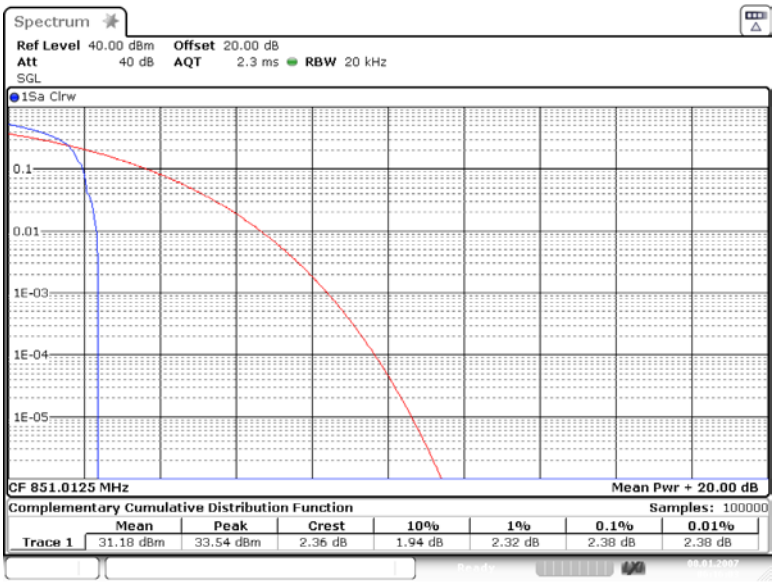
PAPR 8K10F1D_H +3;851.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 9K80D7W



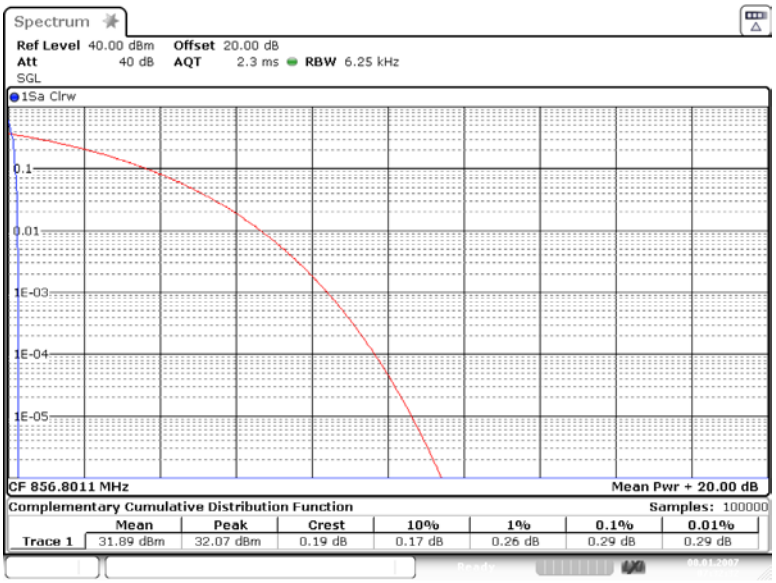
PAPR 9K80D7W_H -0.3;851.012500M

Frequency Band = 851 MHz – 854 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 9K80D7W



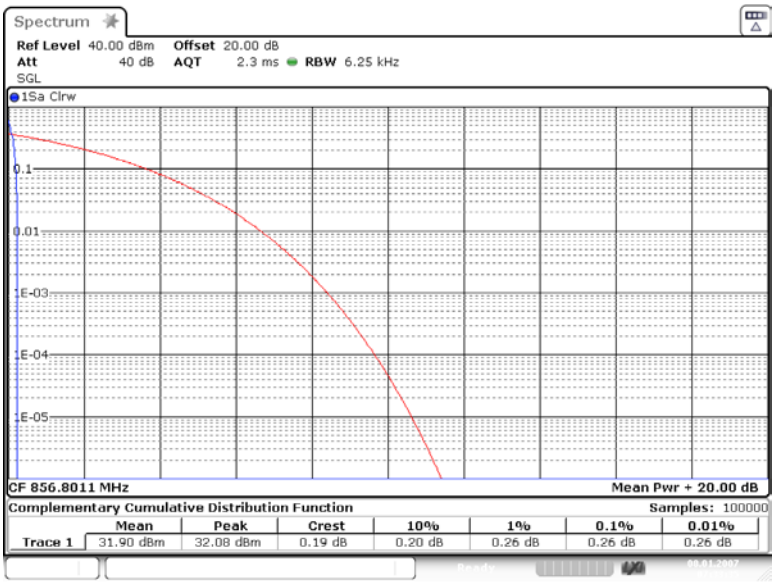
PAPR 9K80D7W_H +3;851.012500M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 4K00F3E



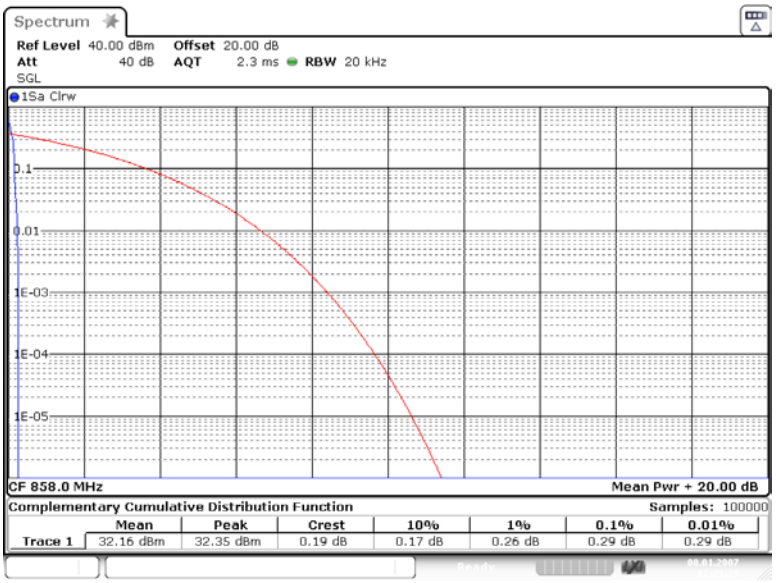
PAPR 4K00F3E_D -0.3;856.801100M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 4K00F3E



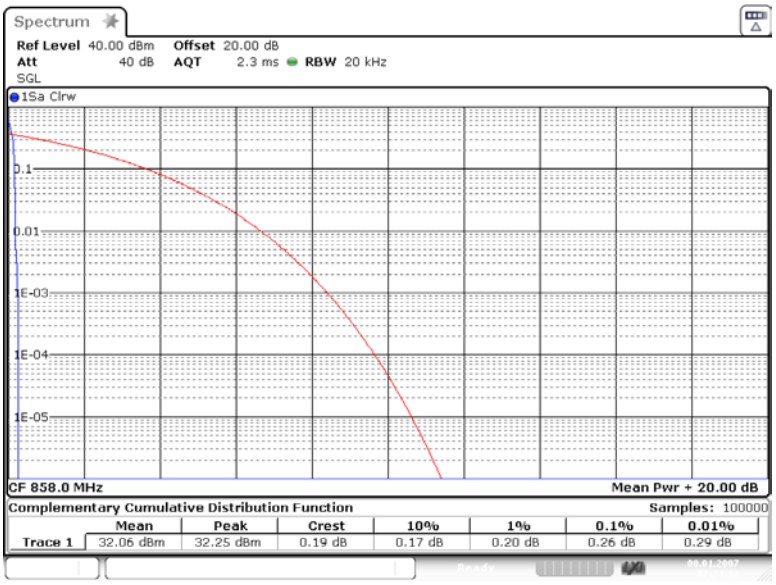
PAPR 4K00F3E_D +3;856.801100M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 11K3F3E



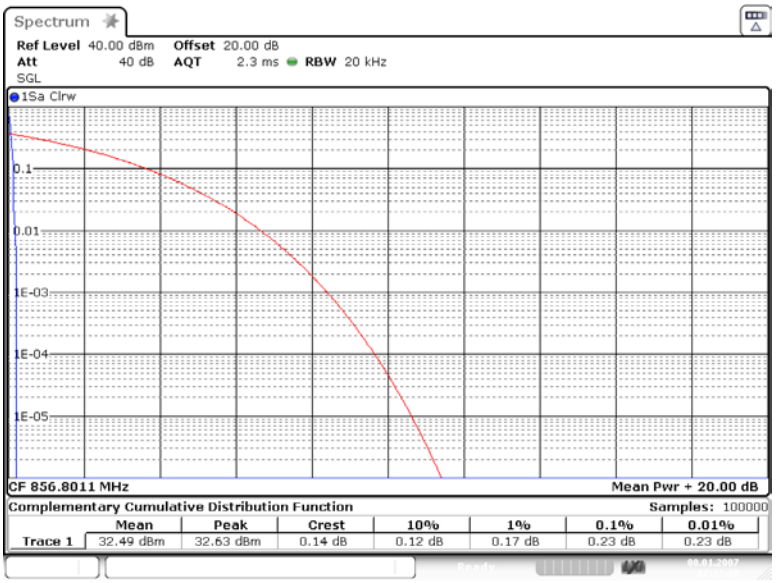
PAPR 11K3F3E_D -0.3;858.000000M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 11K3F3E



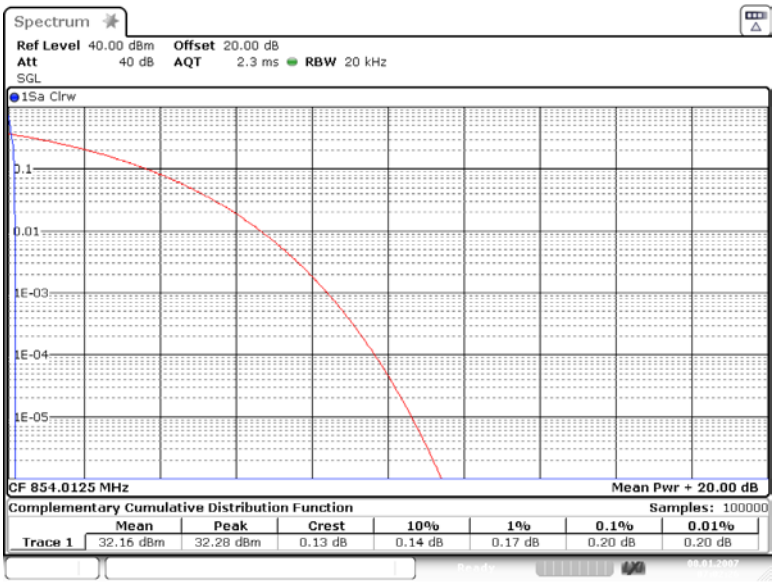
PAPR 11K3F3E_D +3;858.000000M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 8K10F1D



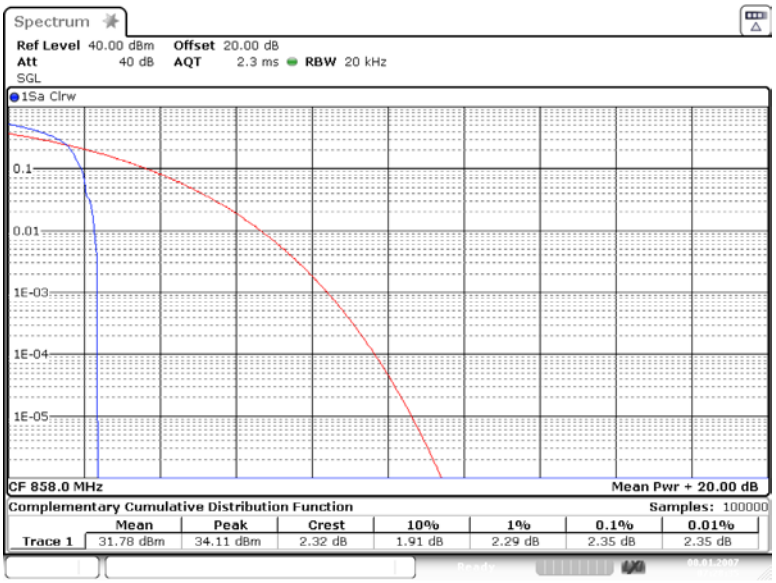
PAPR 8K10F1D_D -0.3;856.801100M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 8K10F1D



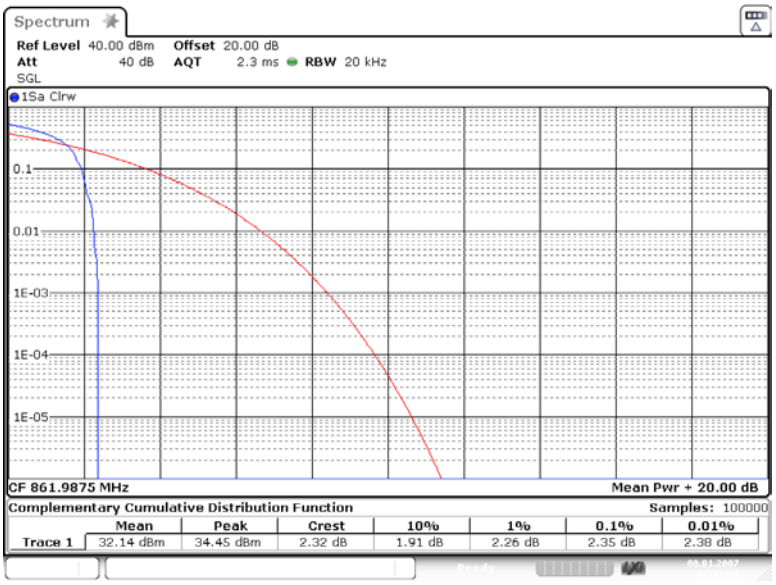
PAPR 8K10F1D_D +3;854.012500M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, Emission Designator = 9K80D7W



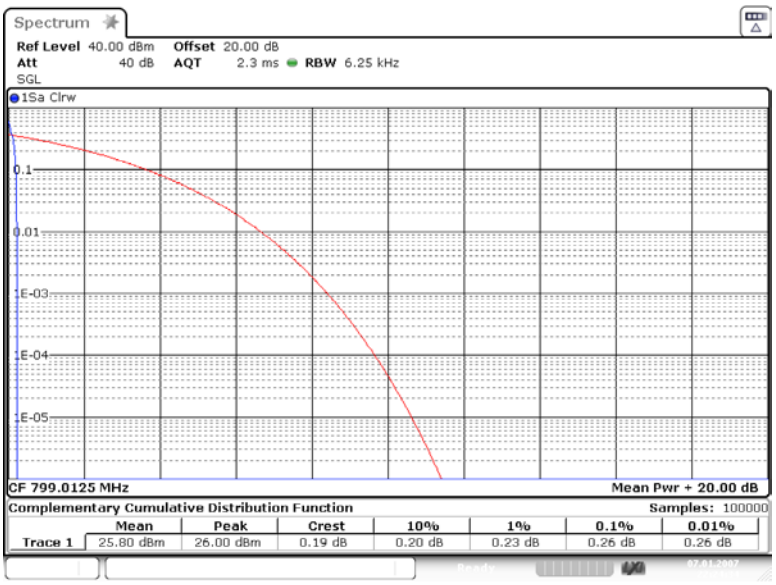
PAPR 9K80D7W_D -0.3;858.000000M

Frequency Band = 854 MHz – 862 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC Emission Designator = 9K80D7W



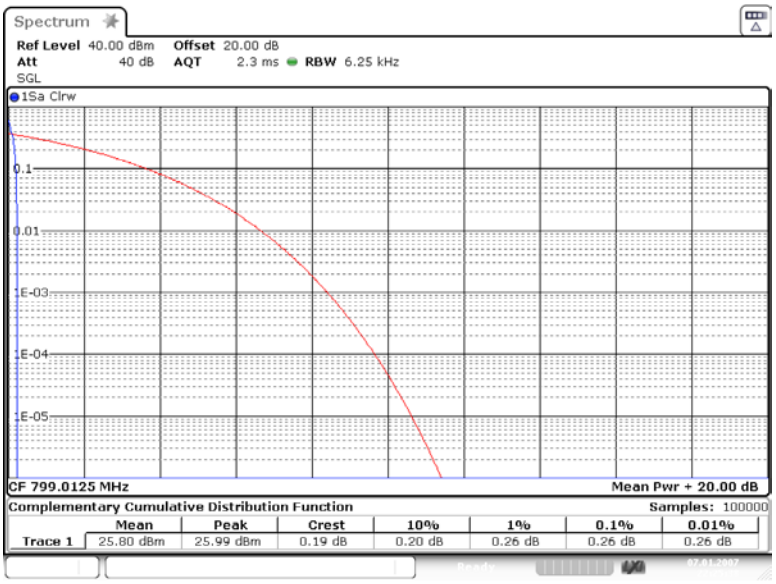
PAPR 9K80D7W_D +3;861.987500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 4K00F3E



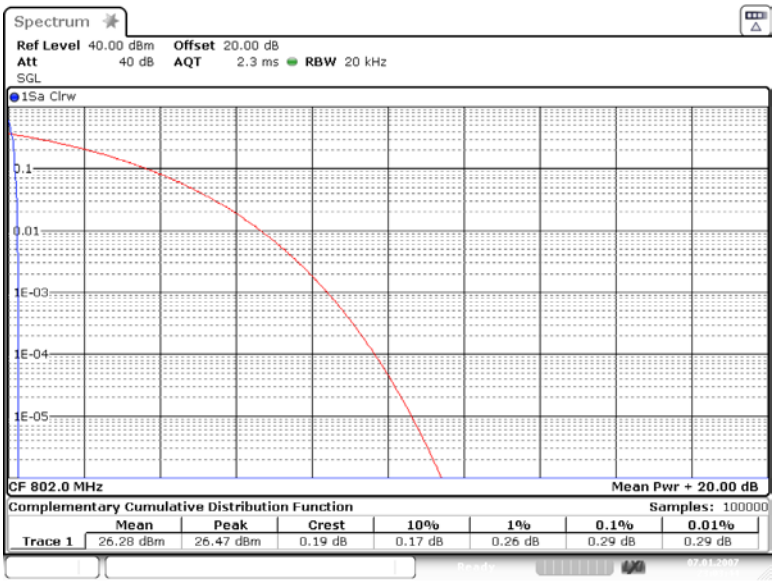
PAPR 4K00F3E_E -0.3;799.012500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 4K00F3E



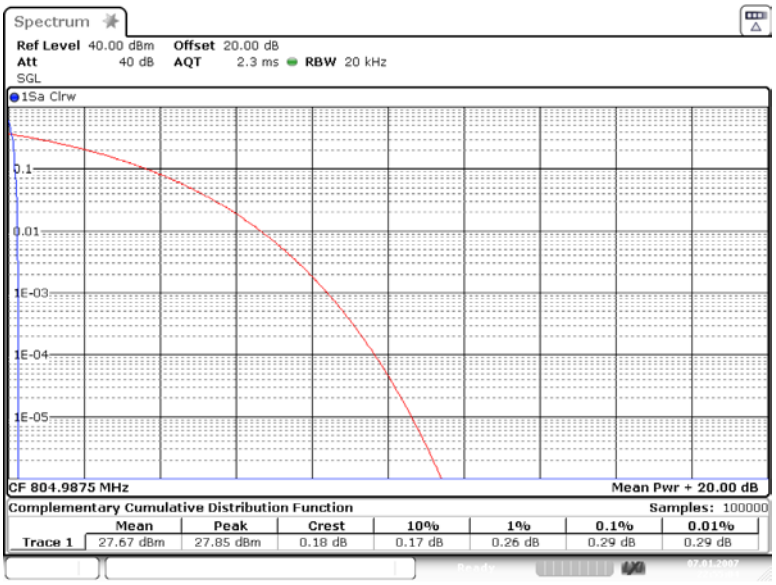
PAPR 4K00F3E_E +3;799.012500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 11K3F3E



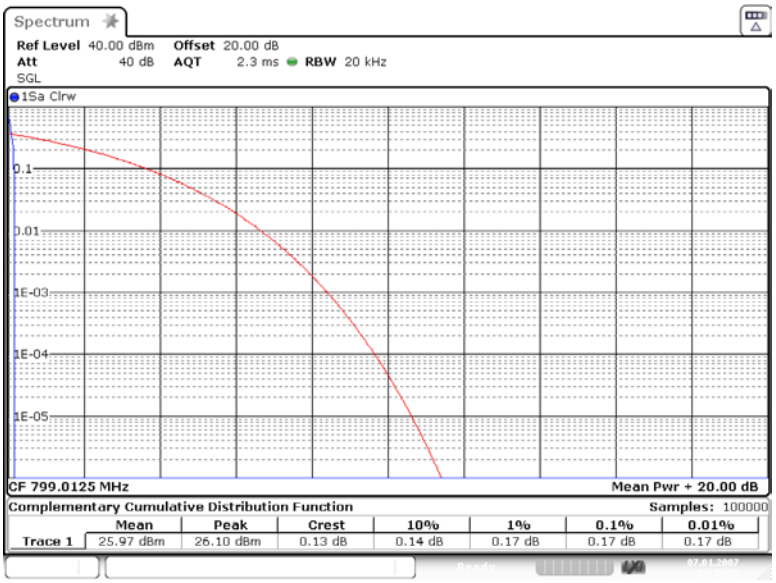
PAPR 11K3F3E_D -0.3;802.000000M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 11K3F3E



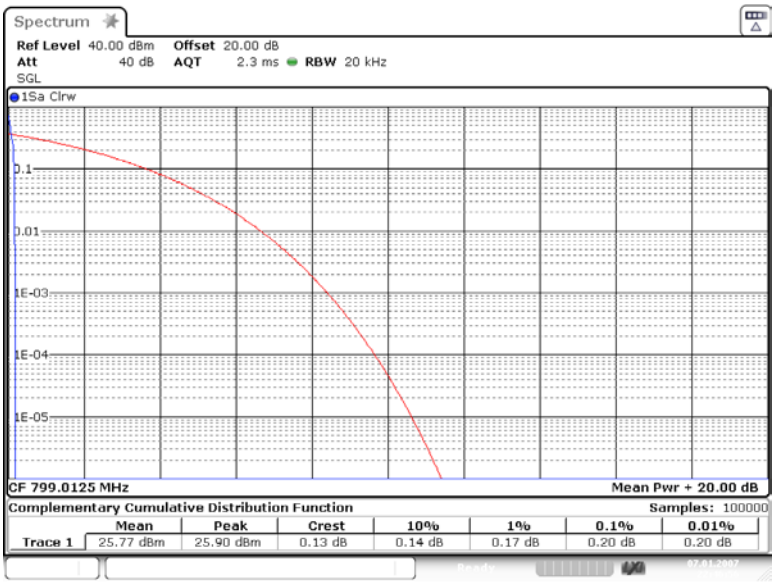
PAPR 11K3F3E_D +3;804.987500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 8K10F1D



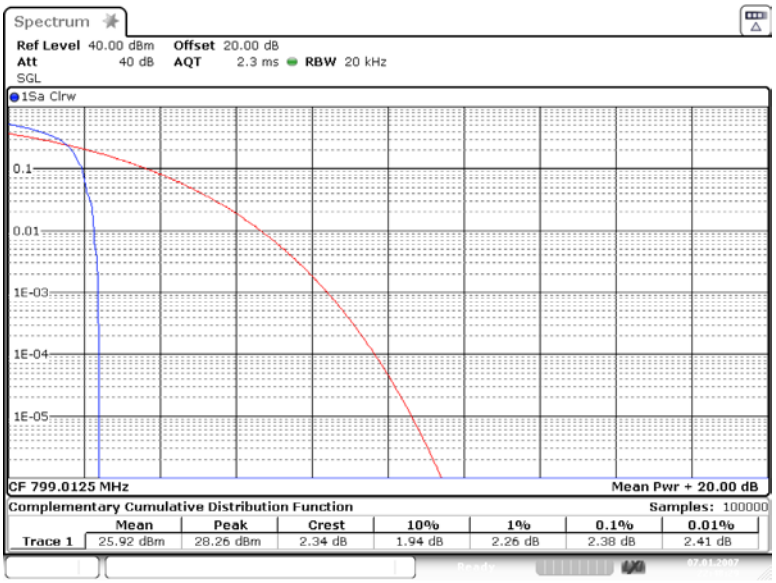
PAPR 8K10F1D_D -0.3;799.012500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 8K10F1D



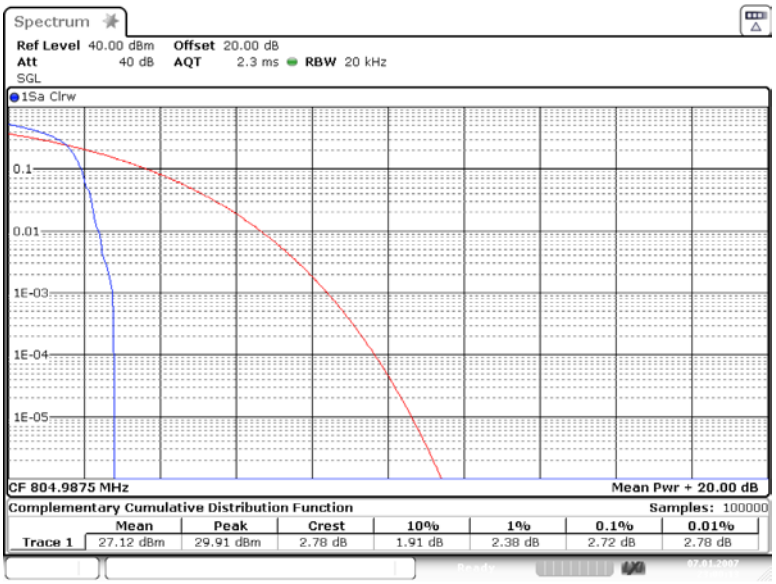
PAPR 8K10F1D_D +3;799.012500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 9K80D7W



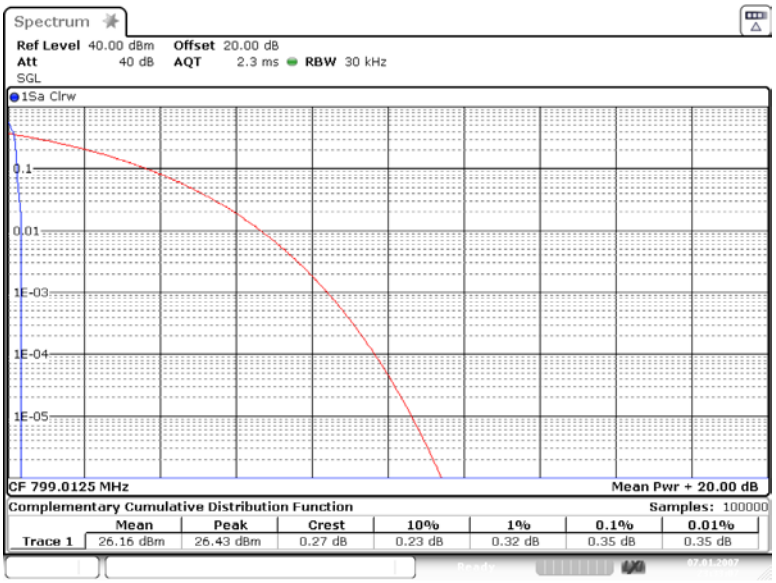
PAPR 9K80D7W_D -0.3;799.012500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 9K80D7W



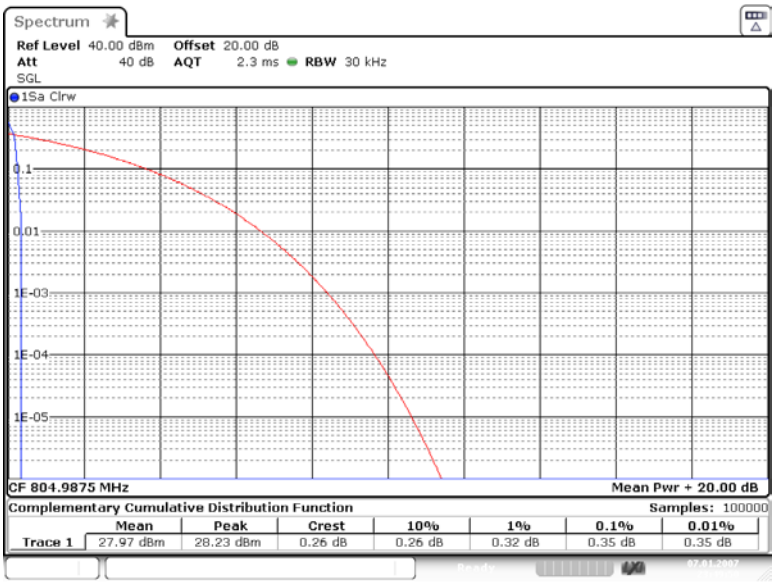
PAPR 9K80D7W_D +3;804.987500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
nput Power = 0.3 dB < AGC, Emission Designator = 16K0F3E



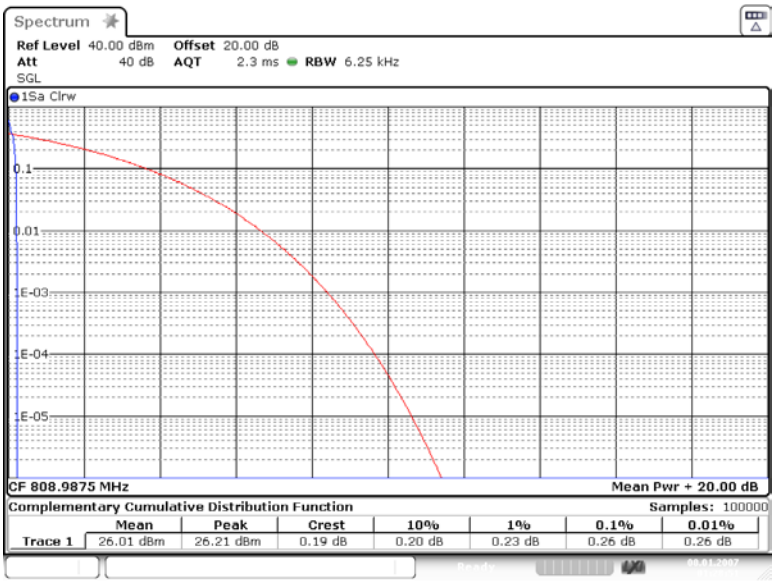
PAPR 16K0F3E_C -0.3;799.012500M

Frequency Band = 799 MHz – 805 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 16K0F3E



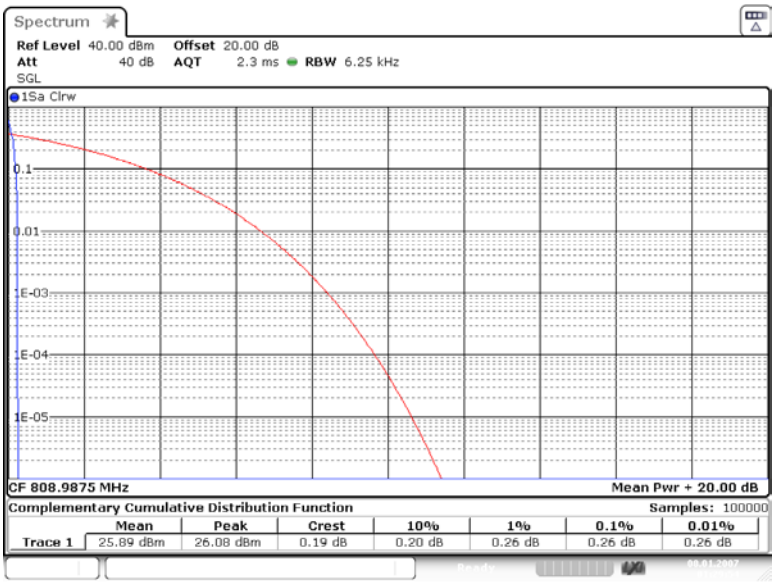
PAPR 16K0F3E_C +3;804.987500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 4K00F3E



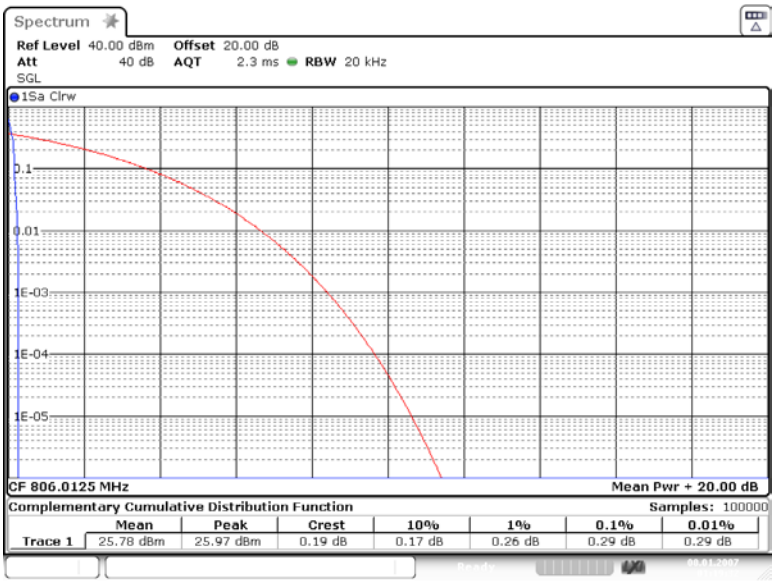
PAPR 4K00F3E_H -0.3;808.987500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 4K00F3E



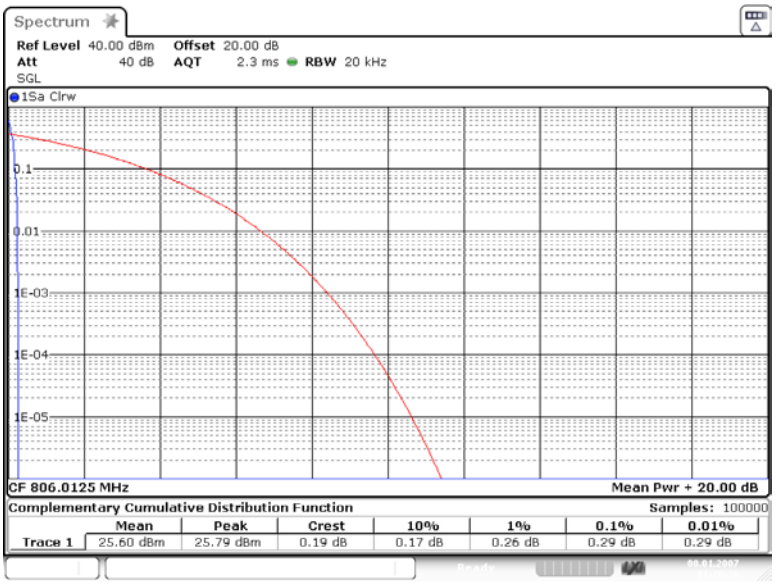
PAPR 4K00F3E_H +3;808.987500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 11K3F3E



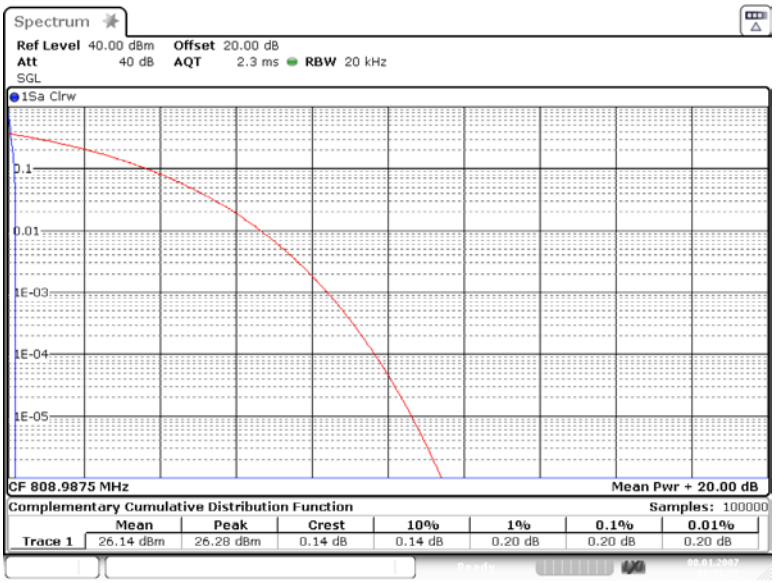
PAPR 11K3F3E_H -0.3;806.012500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 11K3F3E



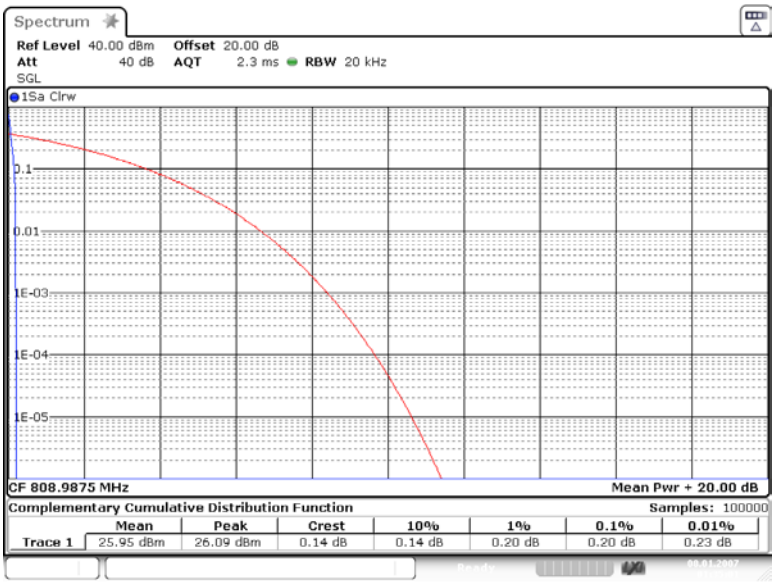
PAPR 11K3F3E_H +3;806.012500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 8K10F1D



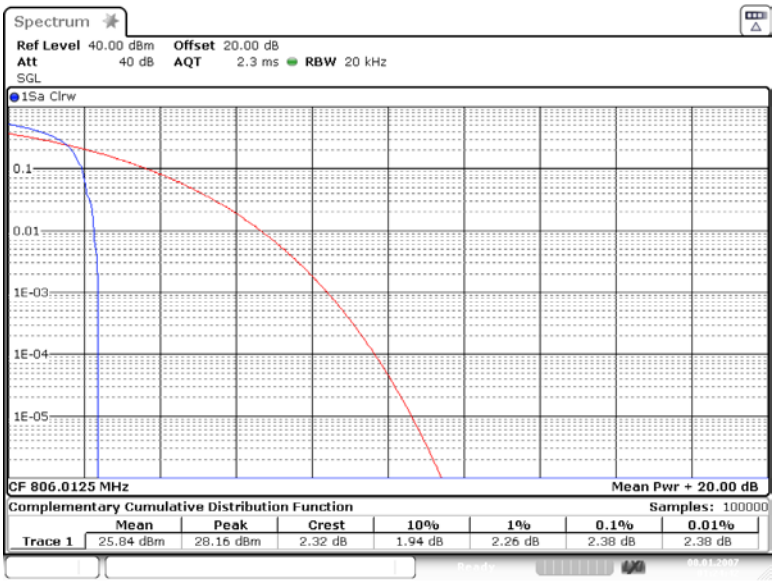
PAPR 8K10F1D_H -0.3;808.987500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 8K10F1D



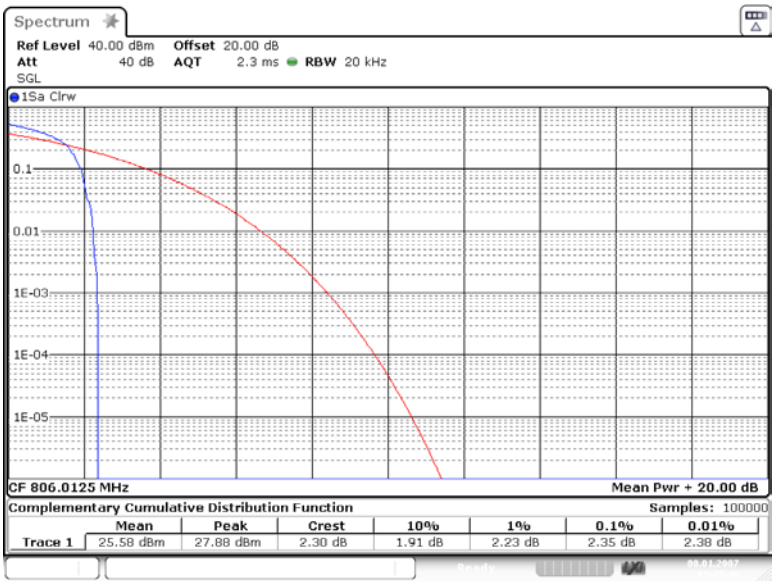
PAPR 8K10F1D_H +3;808.987500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 9K80D7W



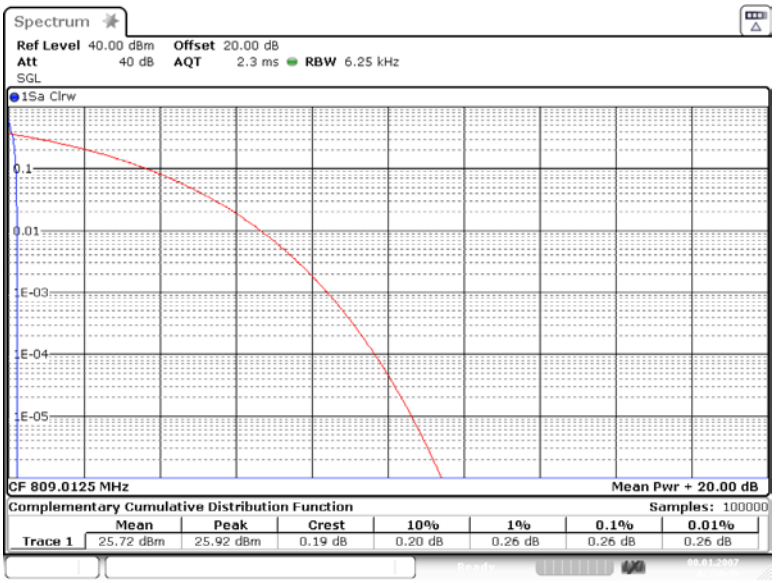
PAPR 9K80D7W_H -0.3;806.012500M

Frequency Band = 806 MHz – 809 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 9K80D7W



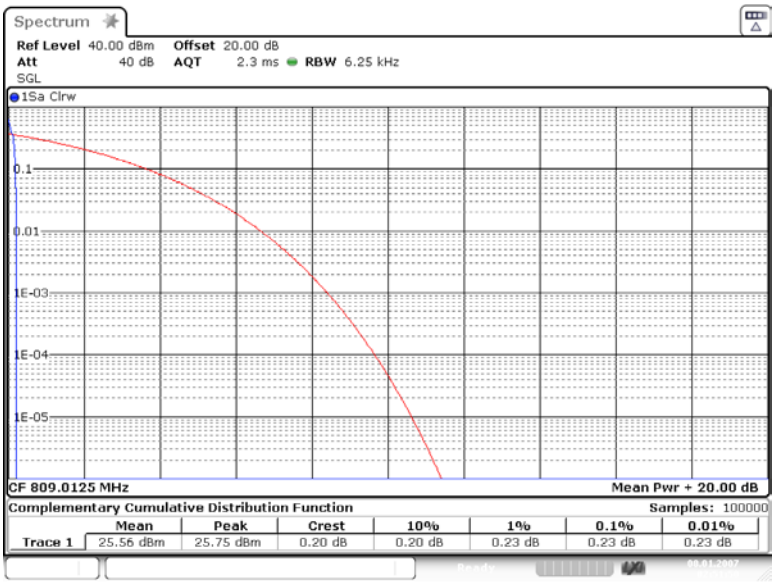
PAPR 9K80D7W_H +3;806.012500M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 4K00F3E



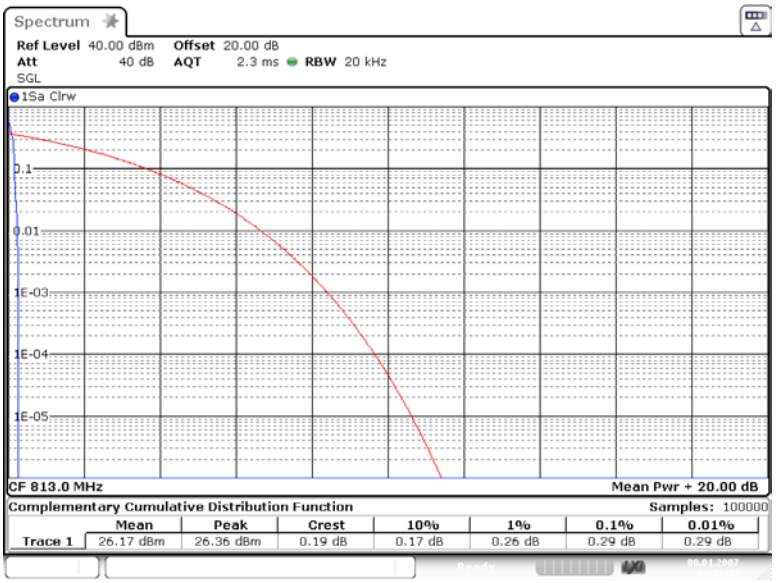
PAPR 4K00F3E_D -0.3;809.012500M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 4K00F3E



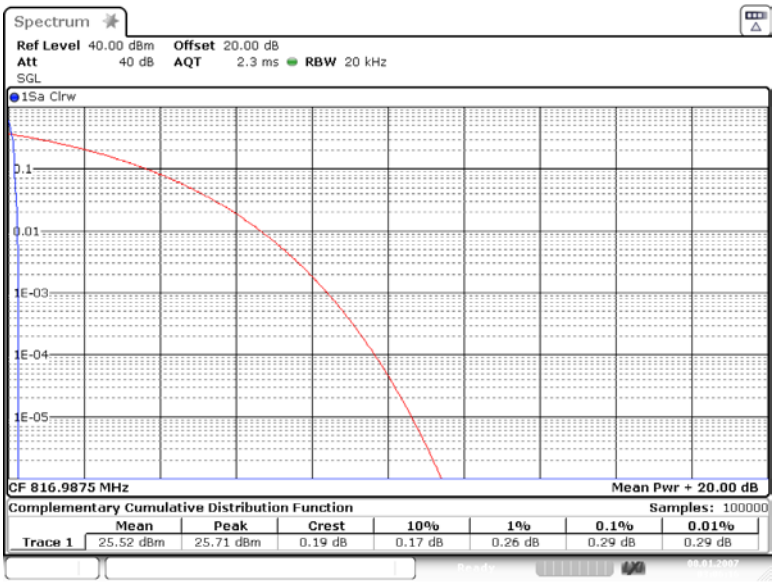
PAPR 4K00F3E_D +3;809.012500M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 11K3F3E



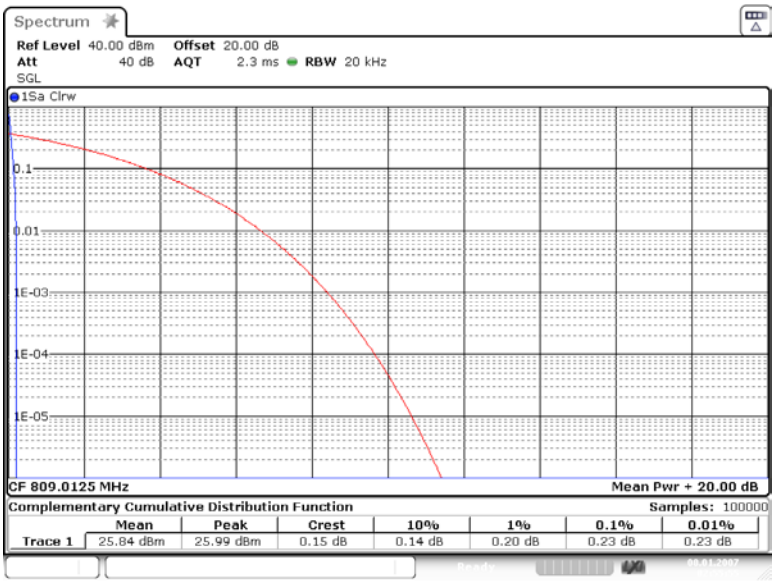
PAPR 11K3F3E_D -0.3;813.000000M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 11K3F3E



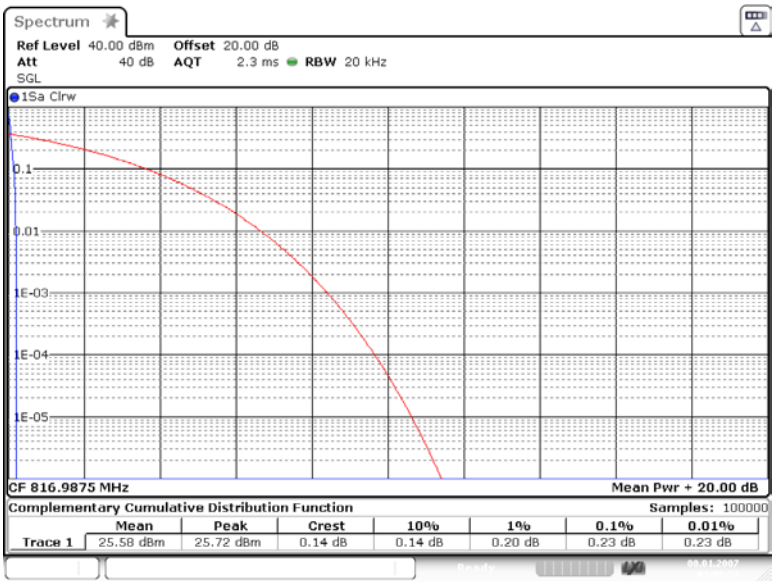
PAPR 11K3F3E_D +3;816.987500M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 8K10F1D



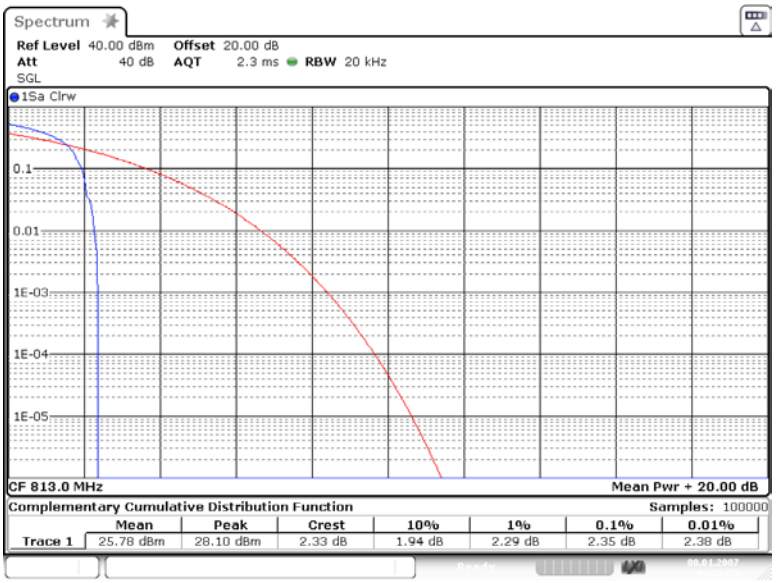
PAPR 8K10F1D_D -0.3;809.012500M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 8K10F1D



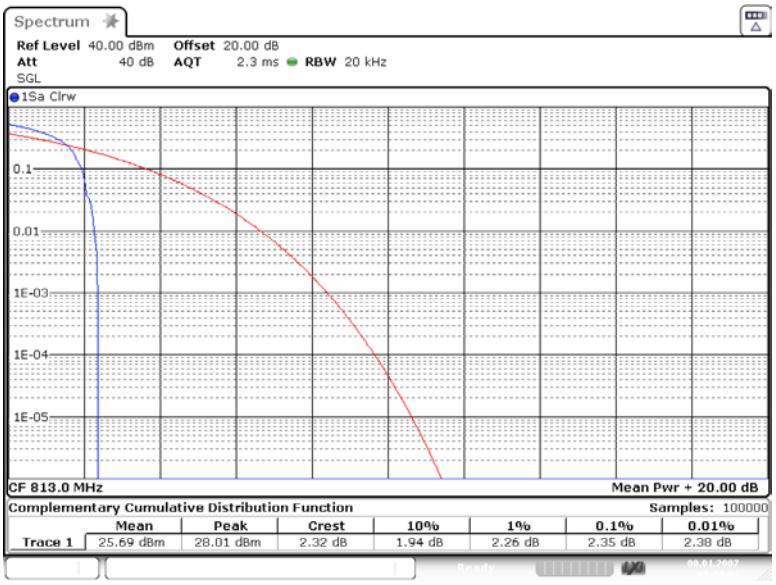
PAPR 8K10F1D_D +3;816.987500M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 0.3 dB < AGC, Emission Designator = 9K80D7W



PAPR 9K80D7W_D -0.3;813.000000M

Frequency Band = 809 MHz – 817 MHz, Direction = RF uplink,
Input Power = 3 dB > AGC Emission Designator = 9K80D7W



PAPR 9K80D7W_D +3;813.000000M

4.2.5 TEST EQUIPMENT USED

- FCC cond. Test lab, BV Nbg

4.3 OCCUPIED BANDWIDTH / INPUT-VERSUS-OUTPUT SPECTRUM

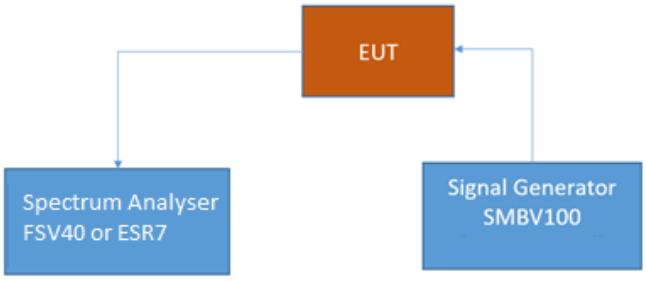
Standard FCC Part 2.1049; FCC Part 90; §90.219

The test was performed according to:
ANSI C63.26, KDB 935210 D05 v01r03: 3.4

4.3.1 TEST DESCRIPTION

The EUT was connected to the test setups according to the following diagram:

FCC Part 22/24/27/90; Industrial Signal Booster
Test Setup step 1: Measuring characteristics of test signals



FCC Part 22/24/27/90; Industrial Signal Booster
Test Setup step 2; Occupied Bandwidth/Input-versus-output spectrum

The attenuation of the measuring and stimulus path are known for each measured frequency and are considered.

The Spectrum Analyser settings can be directly found in the measurement diagrams.

4.3.2 TEST REQUIREMENTS / LIMITS

FCC Part 2.1049; Occupied Bandwidth:

The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission shall be measured under the following conditions as applicable:

(h) Transmitters employing digital modulation techniques—when modulated by an input signal such that its amplitude and symbol rate represent the maximum rated conditions under which the equipment will be operated. The signal shall be applied through any filter networks, pseudo-random generators or other devices required in normal service. Additionally, the occupied bandwidth shall be shown for operation with any devices used for modifying the spectrum when such devices are optional at the discretion of the user.

(i) Transmitters designed for other types of modulation—when modulated by an appropriate signal of sufficient amplitude to be representative of the type of service in which used. A description of the input signal should be supplied.

FCC Part 90; §90.219(e) (ii)

There is no change in the occupied bandwidth of the signal.

4.3.3 TEST PROTOCOL

Band 769 MHz – 775 MHz, downlink							
Emission Designator	**Input Power**	**Signal Frequency [MHz]**	**Occupied Bandwidth SG [kHz]**	**Occupied Bandwidth Booster [kHz]**	**Delta Occupied Bandwidth [kHz]**	**Limit Delta Occupied Bandwidth [kHz]**	**Margin to Limit [kHz]**
4K00F3E at f_m	0.3 dB < AGC	772.0000	4.040	4.040	0.000	0.200	0.200
4K00F3E at f_m	3 dB > AGC	772.0000	4.040	4.040	0.000	0.200	0.200
11K3F3E at f_m	0.3 dB < AGC	772.0000	10.759	10.759	0.000	0.565	0.565
11K3F3E at f_m	3 dB > AGC	772.0000	10.759	10.759	0.000	0.565	0.565
8K10F1D at f_m	0.3 dB < AGC	772.0000	8.069	8.049	0.020	0.405	0.385
8K10F1D at f_m	3 dB > AGC	772.0000	8.049	8.049	0.000	0.405	0.405
9K80D7W at f_m	0.3 dB < AGC	772.0000	9.819	9.819	0.000	0.490	0.490
9K80D7W at f_m	3 dB > AGC	772.0000	9.809	9.809	0.000	0.490	0.490
16K0F3E at f_m	0.3 dB < AGC	772.0000	15.918	15.898	0.020	0.800	0.780
16K0F3E at f_m	3 dB > AGC	772.0000	15.918	15.898	0.020	0.800	0.780

Band 851 MHz – 854 MHz, downlink							
Emission Designator	**Input Power**	**Signal Frequency [MHz]**	**Occupied Bandwidth SG [kHz]**	**Occupied Bandwidth Booster [kHz]**	**Delta Occupied Bandwidth [kHz]**	**Limit Delta Occupied Bandwidth [kHz]**	**Margin to Limit [kHz]**
4K00F3E at f_m	0.3 dB < AGC	852.5000	4.040	4.040	0.000	0.200	0.200
4K00F3E at f_m	3 dB > AGC	852.5000	4.040	4.040	0.000	0.200	0.200
11K3F3E at f_m	0.3 dB < AGC	852.5000	10.759	10.759	0.000	0.565	0.565
11K3F3E at f_m	3 dB > AGC	852.5000	10.759	10.759	0.000	0.565	0.565
8K10F1D at f_m	0.3 dB < AGC	852.5000	8.069	8.049	0.020	0.405	0.385
8K10F1D at f_m	3 dB > AGC	852.5000	8.049	8.049	0.000	0.405	0.405
9K80D7W at f_m	0.3 dB < AGC	852.5000	9.809	9.779	0.030	0.490	0.460
9K80D7W at f_m	3 dB > AGC	852.5000	9.809	9.799	0.010	0.490	0.480

Band 854 MHz – 862 MHz, downlink							
Emission Designator	**Input Power**	**Signal Frequency [MHz]**	**Occupied Bandwidth SG [kHz]**	**Occupied Bandwidth Booster [kHz]**	**Delta Occupied Bandwidth [kHz]**	**Limit Delta Occupied Bandwidth [kHz]**	**Margin to Limit [kHz]**
4K00F3E at f_m	0.3 dB < AGC	858.0000	4.040	4.040	0.000	0.200	0.200
4K00F3E at f_m	3 dB > AGC	858.0000	4.040	4.040	0.000	0.200	0.200
11K3F3E at f_m	0.3 dB < AGC	858.0000	10.759	10.759	0.000	0.565	0.565
11K3F3E at f_m	3 dB > AGC	858.0000	10.759	10.759	0.000	0.565	0.565
8K10F1D at f_m	0.3 dB < AGC	858.0000	8.069	8.049	0.020	0.405	0.385
8K10F1D at f_m	3 dB > AGC	858.0000	8.049	8.049	0.000	0.405	0.405
9K80D7W at f_m	0.3 dB < AGC	858.0000	9.819	9.789	0.030	0.490	0.460
9K80D7W at f_m	3 dB > AGC	858.0000	9.809	9.789	0.020	0.490	0.470

Band 799 MHz – 805 MHz, uplink							
Emission Designator	**Input Power**	**Signal Frequency [MHz]**	**Occupied Bandwidth SG [kHz]**	**Occupied Bandwidth Booster [kHz]**	**Delta Occupied Bandwidth [kHz]**	**Limit Delta Occupied Bandwidth [kHz]**	**Margin to Limit [kHz]**
4K00F3E at f_m	0.3 dB < AGC	802.0000	4.040	4.040	0.000	0.200	0.200
4K00F3E at f_m	3 dB > AGC	802.0000	4.040	4.040	0.000	0.200	0.200
11K3F3E at f_m	0.3 dB < AGC	802.0000	10.779	10.759	0.020	0.565	0.545
11K3F3E at f_m	3 dB > AGC	802.0000	10.759	10.759	0.000	0.565	0.565
8K10F1D at f_m	0.3 dB < AGC	802.0000	8.079	8.049	0.030	0.405	0.375
8K10F1D at f_m	3 dB > AGC	802.0000	8.069	8.049	0.020	0.405	0.385
9K80D7W at f_m	0.3 dB < AGC	802.0000	9.829	9.809	0.020	0.490	0.470
9K80D7W at f_m	3 dB > AGC	802.0000	9.829	9.799	0.020	0.490	0.470
16K0F3E at f_m	0.3 dB < AGC	802.0000	15.958	15.908	0.050	0.800	0.750
16K0F3E at f_m	3 dB > AGC	802.0000	15.938	15.898	0.040	0.800	0.760

Band 806 MHz – 809 MHz, uplink							
Emission Designator	**Input Power**	**Signal Frequency [MHz]**	**Occupied Bandwidth SG [kHz]**	**Occupied Bandwidth Booster [kHz]**	**Delta Occupied Bandwidth [kHz]**	**Limit Delta Occupied Bandwidth [kHz]**	**Margin to Limit [kHz]**
4K00F3E at fm	0.3 dB < AGC	807.5000	4.040	4.040	0.000	0.200	0.200
4K00F3E at f_m	3 dB > AGC	807.5000	4.040	4.040	0.000	0.200	0.200
11K3F3E at f_m	0.3 dB < AGC	807.5000	10.779	10.759	0.020	0.565	0.545
11K3F3E at f_m	3 dB > AGC	807.5000	10.759	10.759	0.000	0.565	0.565
8K10F1D at f_m	0.3 dB < AGC	807.5000	8.099	8.049	0.050	0.405	0.355
8K10F1D at f_m	3 dB > AGC	807.5000	8.069	8.049	0.020	0.405	0.385
9K80D7W at f_m	0.3 dB < AGC	807.5000	9.839	9.799	0.040	0.490	0.450
9K80D7W at f_m	3 dB > AGC	807.5000	9.819	9.799	0.020	0.490	0.470

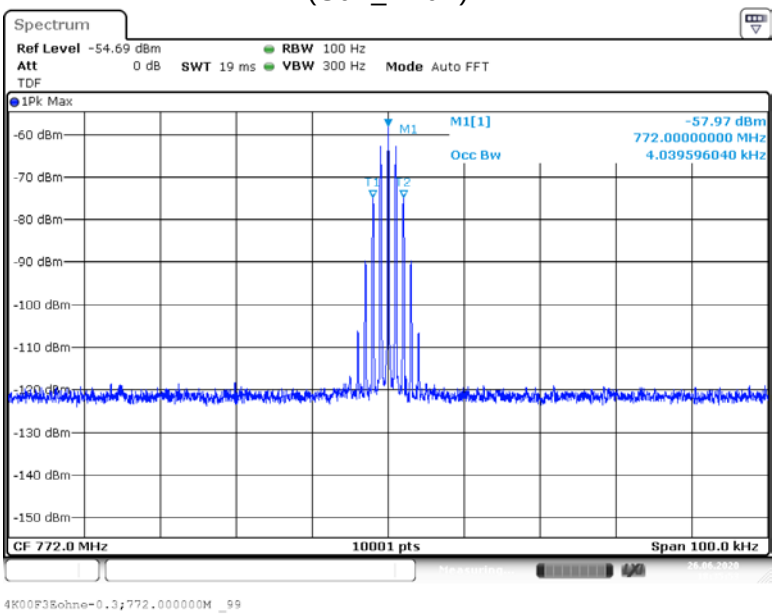
Band 809 MHz – 817 MHz, uplink							
Emission Designator	**Input Power**	**Signal Frequency [MHz]**	**Occupied Bandwidth SG [kHz]**	**Occupied Bandwidth Booster [kHz]**	**Delta Occupied Bandwidth [kHz]**	**Limit Delta Occupied Bandwidth [kHz]**	**Margin to Limit [kHz]**
4K00F3E at f_m	0.3 dB < AGC	813.0000	4.040	4.040	0.000	0.200	0.200
4K00F3E at f_m	3 dB > AGC	813.0000	4.040	4.040	0.000	0.200	0.200
11K3F3E at f_m	0.3 dB < AGC	813.0000	10.779	10.759	0.020	0.565	0.545
11K3F3E at f_m	3 dB > AGC	813.0000	10.759	10.759	0.000	0.565	0.565
8K10F1D at f_m	0.3 dB < AGC	813.0000	8.089	8.049	0.040	0.405	0.365
8K10F1D at f_m	3 dB > AGC	813.0000	8.069	8.049	0.020	0.405	0.385
9K80D7W at f_m	0.3 dB < AGC	813.000	9.839	9.789	0.040	0.490	0.450
9K80D7W at f_m	3 dB > AGC	813.000	9.819	9.809	0.020	0.490	0.470

Remark: Please see next sub-clause for the measurement plot.
Since no change in occupied BW of the signal is allowed but due to measurement uncertainty a certain change will always be present, the 5 % limit of ISED was used as limit for comparison.

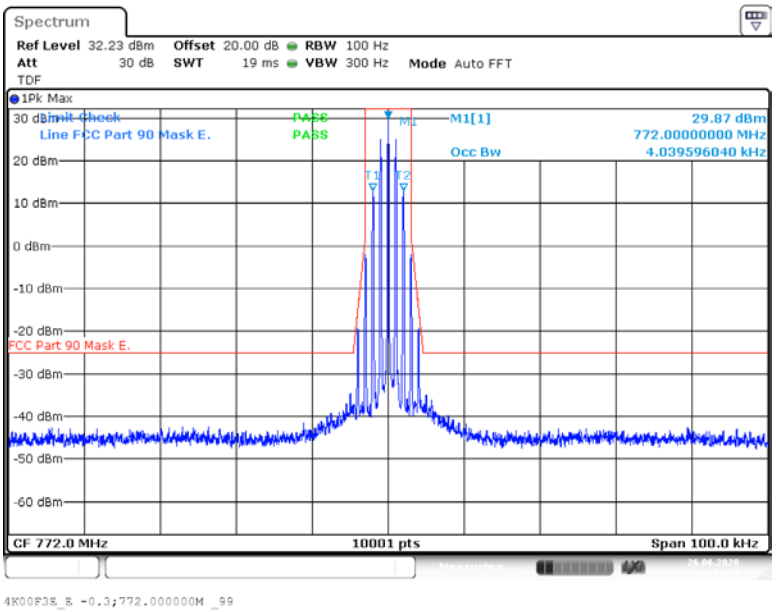
4.3.4 MEASUREMENT PLOTS

4.3.4.1FREQUENCY BAND = 769 MHZ – 775 MHZ

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 0.3 dB < AGC, at **fm** Signal Type = 4K00F3E
(S01_AB01)

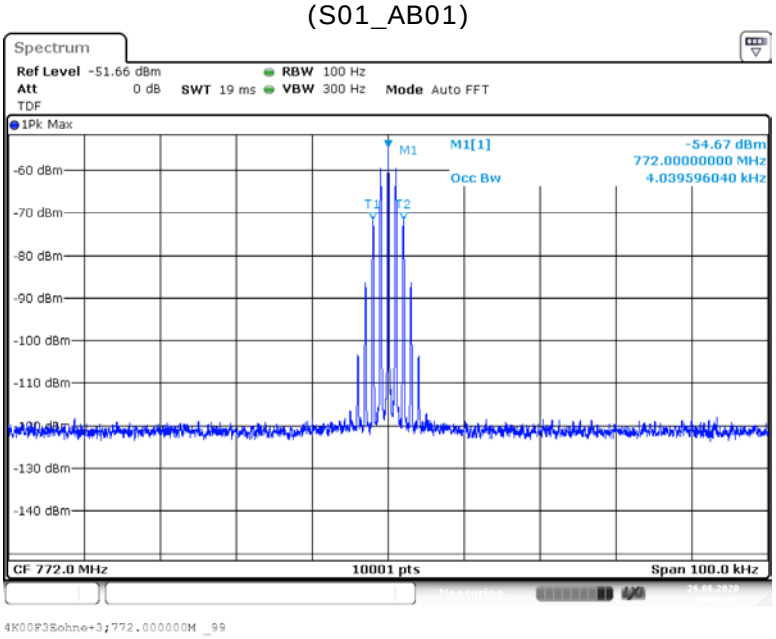


Input Signal

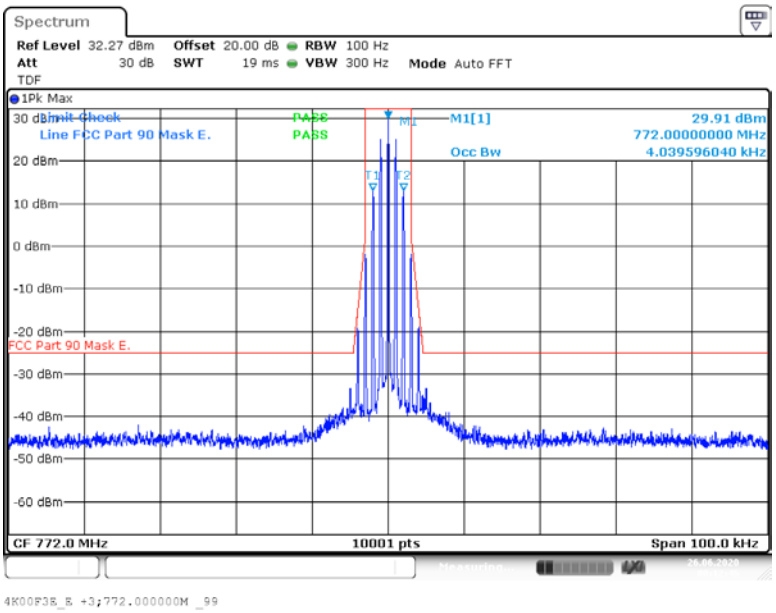


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 3 dB > AGC, at **fm** Signal Type = 4K00F3E (S01_AB01)

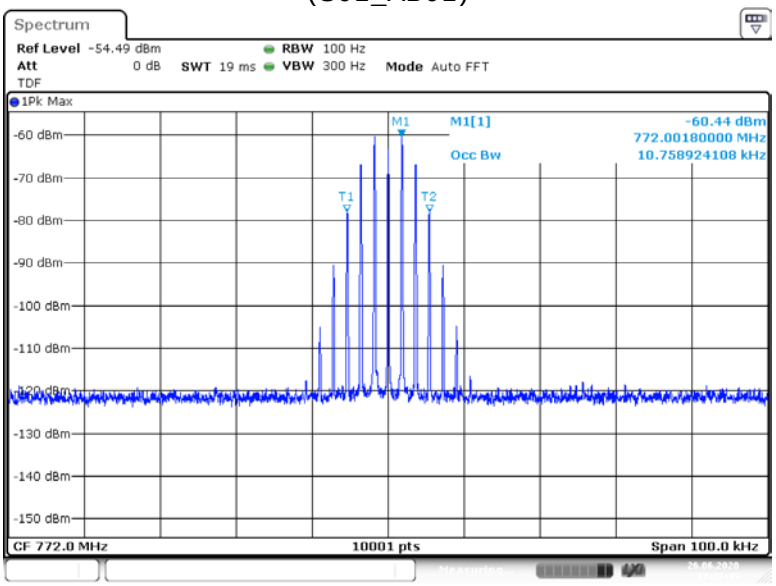


Input Signal

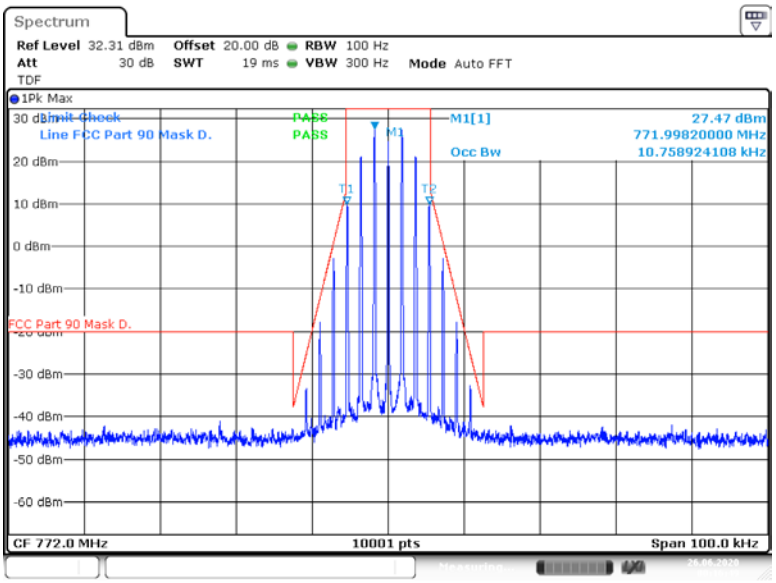


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 0.3 dB < AGC, at **fm** Signal Type = 11K3F3E (S01_AB01)

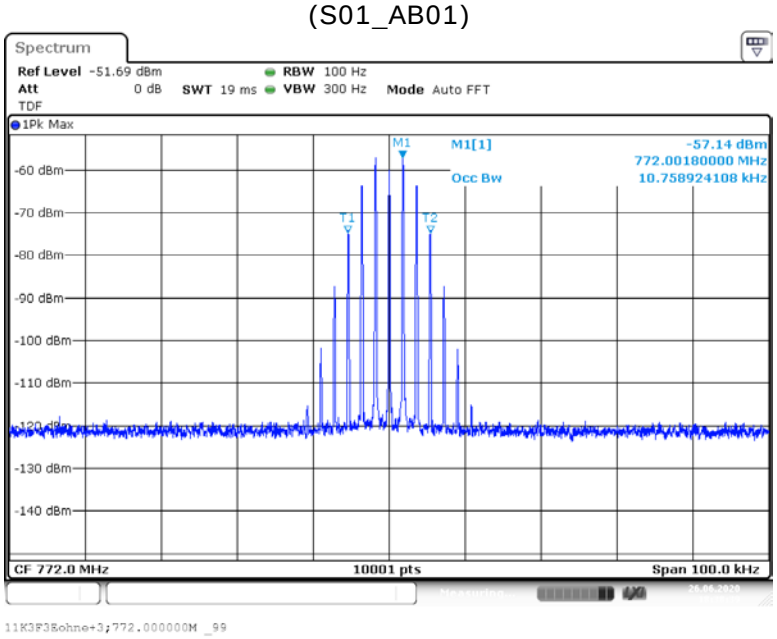


Input Signal

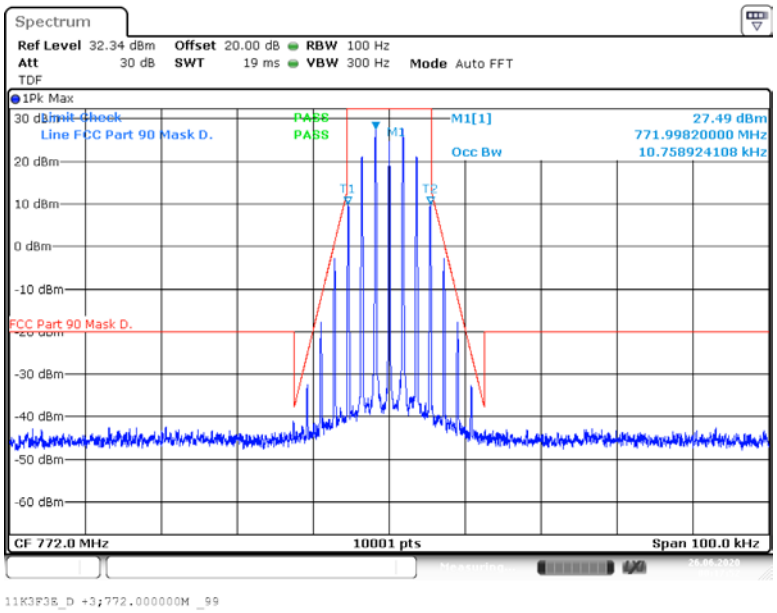


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 3 dB > AGC, at **fm** Signal Type = 11K3F3E (S01_AB01)

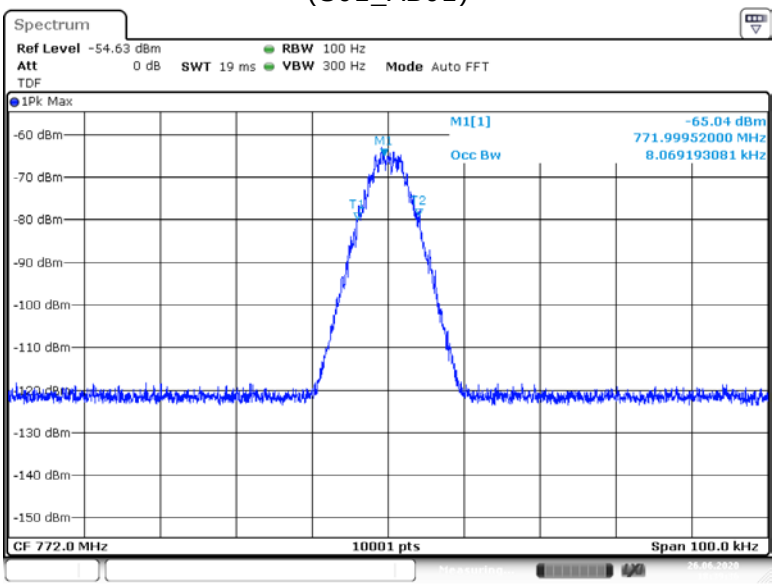


Input Signal

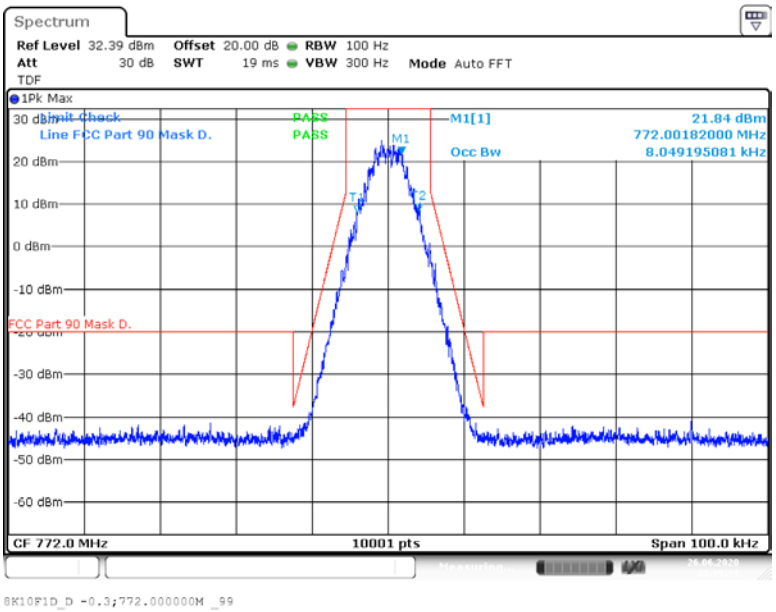


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 0.3 dB < AGC, at **fm** Signal Type = 8K10F1D (S01_AB01)

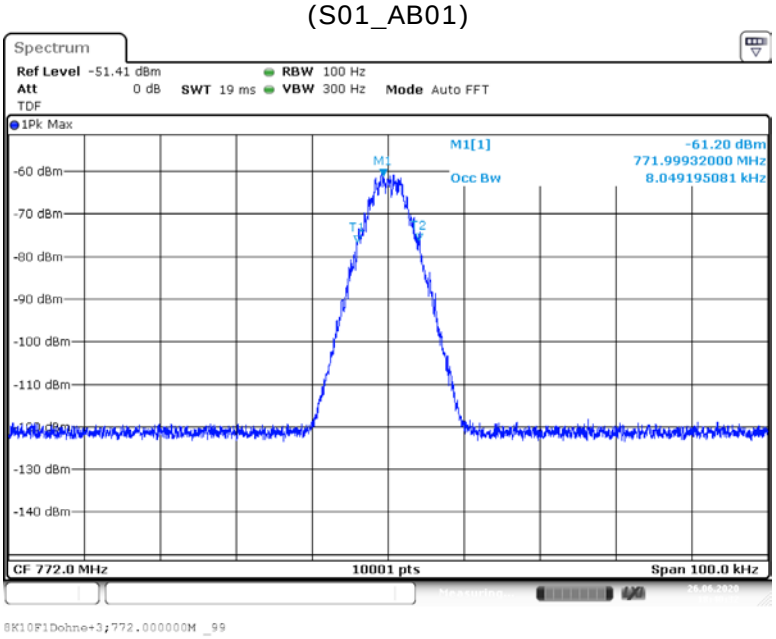


Input Signal

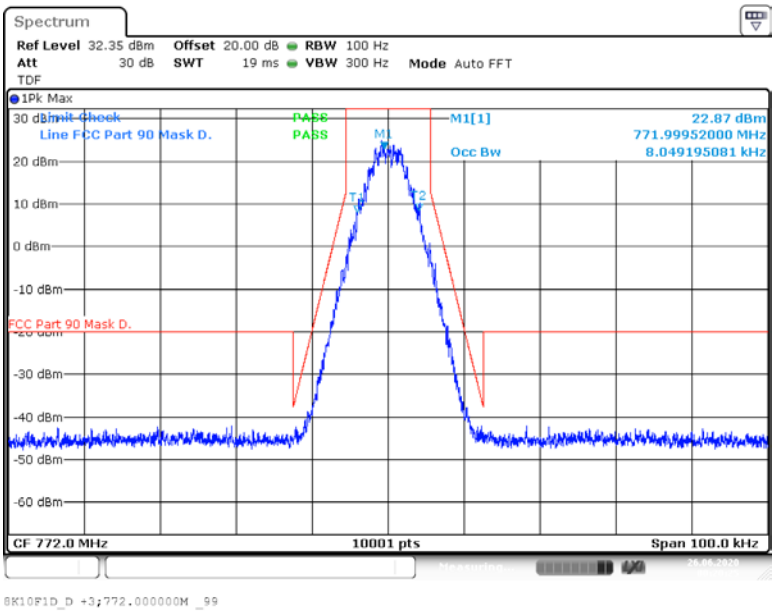


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 3 dB > AGC, at **fm** Signal Type = 8K10F1D (S01_AB01)

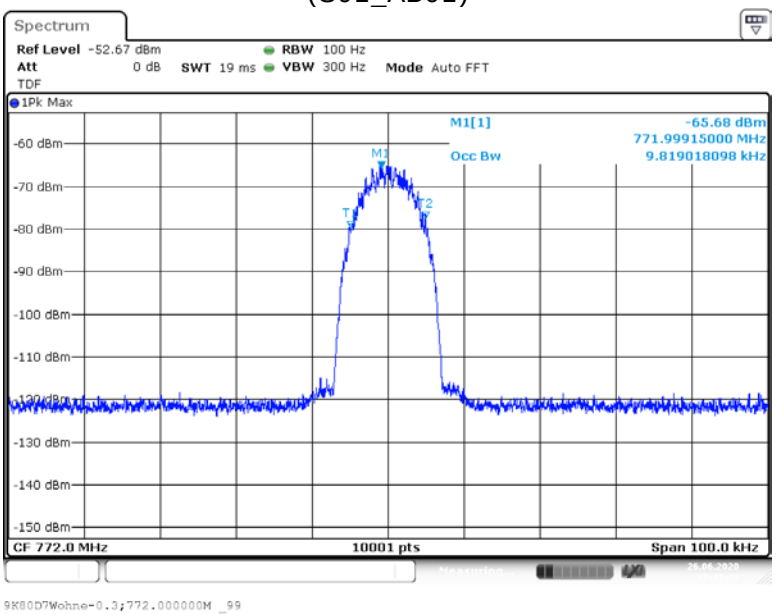


Input Signal

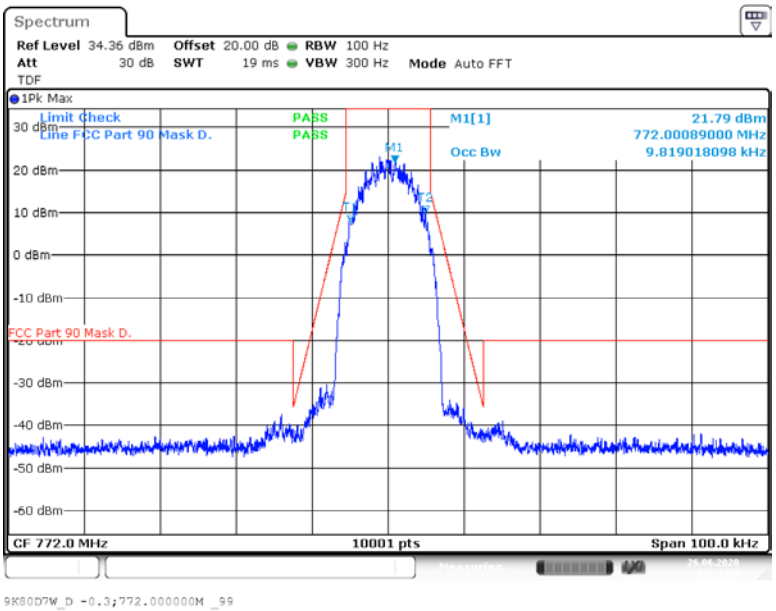


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 0.3 dB < AGC, at **fm** Signal Type = 9K80D7W (S01_AB01)

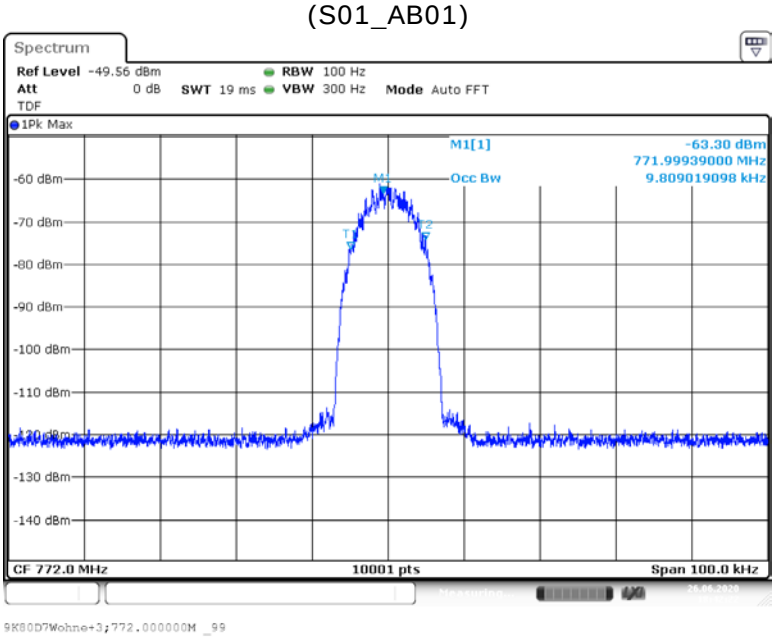


Input Signal

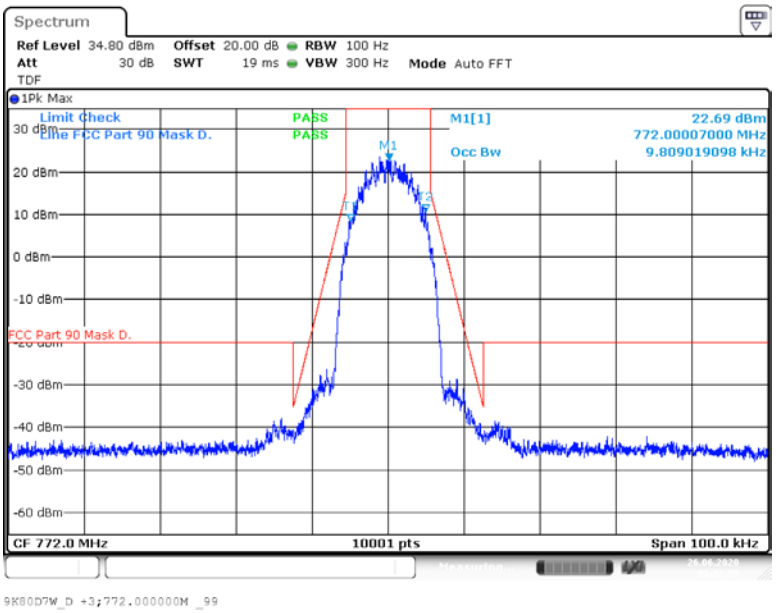


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink,
Input Power = 3 dB > AGC, at **fm** Signal Type = 9K80D7W
(S01_AB01)

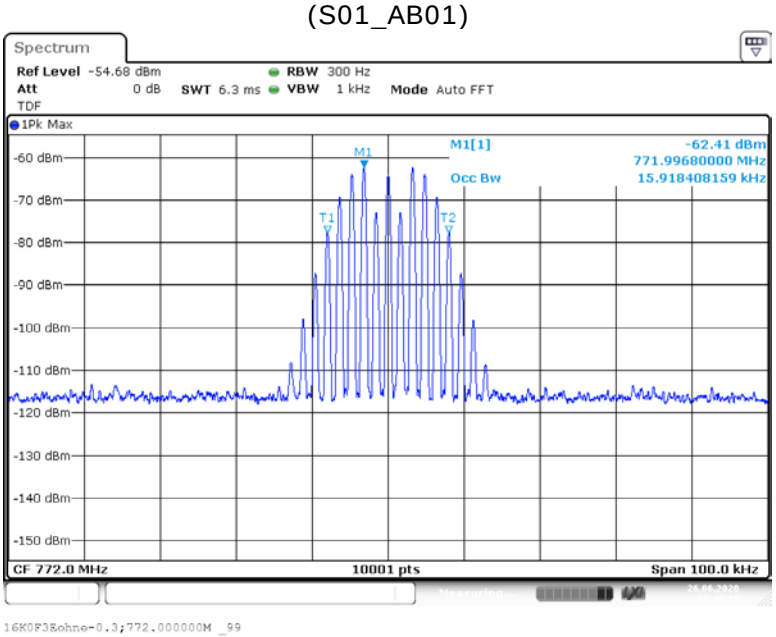


Input Signal

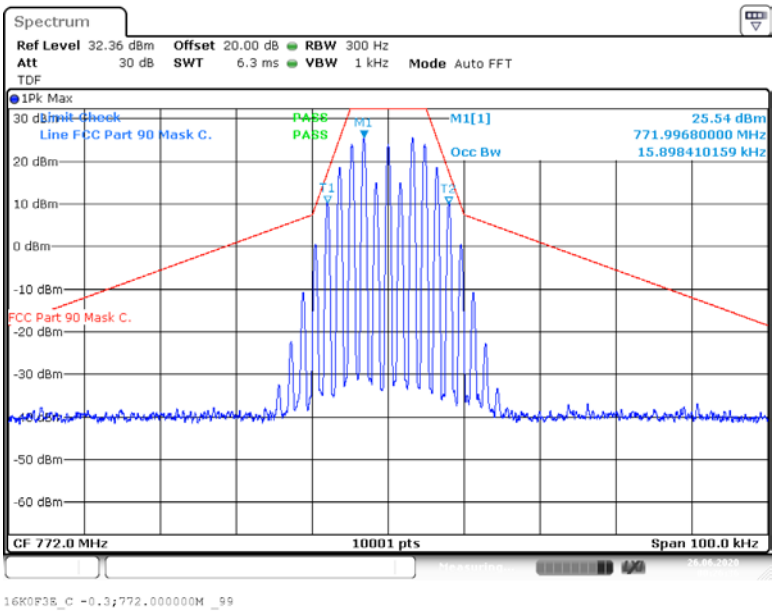


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 0.3 dB < AGC, at **fm** Signal Type = 16K0F3E (S01_AB01)

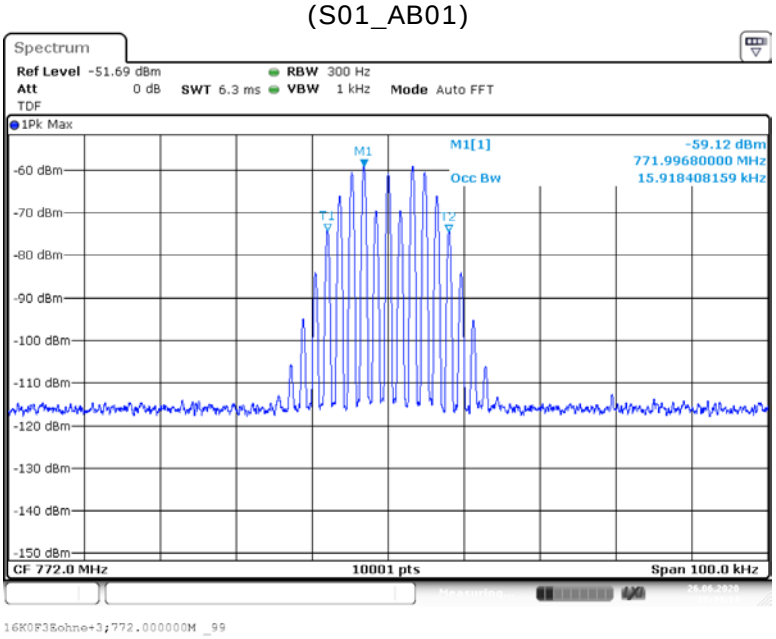


Input Signal

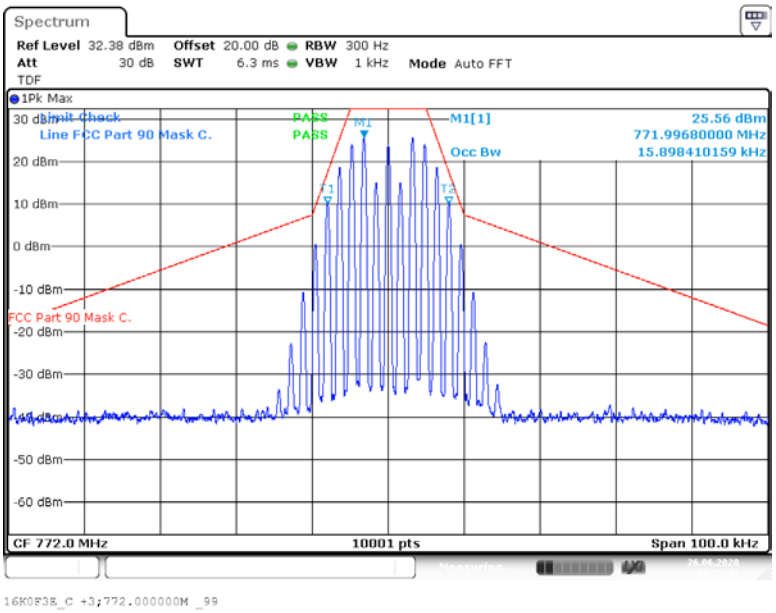


Output Signal

Frequency Band = 769 MHz – 775 MHz, Direction = RF downlink, Input Power = 3 dB > AGC, at **fm** Signal Type = 16K0F3E (S01_AB01)



Input Signal



Output Signal