TEST REPORT

of

FCC Part 22 Subpart H, Part 24 Subpart E, Part 27 Subpart C/ L

FCC ID: BEJTM13LNNAHK1

Equipment Under Test	:	LTE Module
Model Name	:	TM13LNNAHK1
Applicant	:	LG Electronics USA
Manufacturer	:	LG Electronics USA
Date of Receipt	:	2018.07.10
Date of Test(s)	:	2018.07.27 ~ 2018.10.22
Date of Issue	:	2018.10.30

In the configuration tested, the EUT complied with the standards specified above.

Tested By: **Jinhyoung Cho** **Date:** **2018.10.30**

Technical Manager: **Harim Lee** **Date:** **2018.10.30**

TABLE OF CONTENTS

1. General information

1.1. Testing laboratory

SGS Korea Co., Ltd. (Gunpo Laboratory)
- Wireless Div. 2FL, 10-2, LS-ro 182beon-gil, Gunpo-si, Gyeonggi-do, Korea, 15807
- Designation number: KR0150

All SGS services are rendered in accordance with the applicable SGS conditions of service available on request and accessible at http://www.sgs.com/en/Terms-and-Conditions.aspx.

Telephone : +82 31 688 0901
FAX : +82 31 688 0921

1.2. Details of applicant

Applicant : LG Electronics USA
Address : 1000 Sylvan Avenue, Englewood Cliffs, New Jersey, United States, 07632
Contact Person : Han, Kyung-su
Phone No. : +2 201 472 2623

1.3. Details of manufacturer

Company : LG Electronics Inc.
Address : 222 LG-ro, Jinwi-myeon, Pyeongtaek-si, Gyeonggi-do, Korea, 17709

1.4. Description of EUT

Kind of Product	LTE Module
Model Name	TM13LNNAHK1
Power Supply	DC 4.0 V
Rated Power	CDMA BC0, BC1: 24 ㏈m LTE Band 2, 4, 5, 13: 23 ㏈m
Frequency Range	CDMA BC0: 824 ㎒ ~ 849 ㎒ CDMA BC1: 1 850 ㎒ ~ 1 910 ㎒ LTE Band 2: 1 850 ㎒ ~ 1 910 ㎒ LTE Band 4: 1 710 ㎒ ~ 1 755 ㎒ LTE Band 5: 824 ㎒ ~ 849 ㎒ LTE Band 13: 777 ㎒ ~ 787 ㎒
Emission Designator	CDMA BC0: 1M27F9W CDMA BC1: 1M28F9W LTE Band 2 (1.4 ㎒): 1M11G7D (QPSK) / 1M11W7D (16QAM) LTE Band 2 (3 ㎒): 2M70G7D (QPSK) / 2M69W7D (16QAM) LTE Band 2 (5 ㎒): 4M53G7D (QPSK) / 4M53W7D (16QAM) LTE Band 2 (10 ㎒): 8M94G7D (QPSK) / 8M94W7D (16QAM) LTE Band 2 (15 ㎒): 13M5G7D (QPSK) / 13M5W7D (16QAM) LTE Band 2 (20 ㎒): 17M9G7D (QPSK) / 17M9W7D (16QAM)

Emission Designator	LTE Band 4 (1.4 ㎒): 1M11G7D (QPSK) / 1M11W7D (16QAM) LTE Band 4 (3 ㎒): 2M70G7D (QPSK) / 2M69W7D (16QAM) LTE Band 4 (5 ㎒): 4M53G7D (QPSK) / 4M53W7D (16QAM) LTE Band 4 (10 ㎒): 8M97G7D (QPSK) / 8M97W7D (16QAM) LTE Band 4 (15 ㎒): 13M5G7D (QPSK) / 13M5W7D (16QAM) LTE Band 4 (20 ㎒): 17M9G7D (QPSK) / 17M9W7D (16QAM) LTE Band 5 (1.4 ㎒): 1M10G7D (QPSK) / 1M10W7D (16QAM) LTE Band 5 (3 ㎒): 2M69G7D (QPSK) / 2M68W7D (16QAM) LTE Band 5 (5 ㎒): 4M53G7D (QPSK) / 4M53W7D (16QAM) LTE Band 5 (10 ㎒): 8M94G7D (QPSK) / 8M94W7D (16QAM) LTE Band 13 (5 ㎒): 4M52G7D (QPSK) / 4M53W7D (16QAM) LTE Band 13 (10 ㎒): 8M91G7D (QPSK) / 8M91W7D (16QAM)
H/W Version	RevB3
S/W Version	HMC6PN07

1.5. Test equipment list

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Interval	Cal. Due
Signal Generator	Agilent	E8257D	MY51501169	Jul. 03, 2018	Annual	Jul. 03, 2019
Spectrum Analyzer	R&S	FSV30	103100	Jun. 21, 2018	Annual	Jun. 21, 2019
Mobile Test Unit	R&S	CMW500	144035	Feb. 22, 2018	Annual	Feb. 22, 2019
Power Meter	Anritsu	ML2495A	1223004	Jun. 12, 2018	Annual	Jun. 12, 2019
Power Sensor	Anritsu	MA2411B	1207272	Jun. 12, 2018	Annual	Jun. 12, 2019
Directional Coupler	KRYTAR	152613	127445	Jun. 14, 2018	Annual	Jun. 14, 2019
Temperature Chamber	ESPEC CORP.	PL-1J	15000796	Sep. 18, 2018	Annual	Sep. 18, 2019
High Pass Filter	Wainwright Instrument GmbH	WHKX10-900-1000-18000-40SS	7	Mar. 21, 2018	Annual	Mar. 21, 2019
High Pass Filter	Wainwright Instrument GmbH	WHK3.0/18G-10SS	344	May 27, 2018	Annual	May 27, 2019
High Pass Filter	Wainwright Instrument GmbH	WHKX2.2/12.75G-10SS	8	Mar. 21, 2018	Annual	Mar. 21, 2019
High Pass Filter	Wainwright Instrument GmbH	WHKX1.5/15G-6SS	4	Jun. 14, 2018	Annual	Jun. 14, 2019
DC Power Supply	Agilent	U8002A	MY50060028	Mar. 15, 2018	Annual	Mar. 15, 2019
Preamplifier	H.P.	8447F	2944A03909	Aug. 07, 2018	Annual	Aug. 07, 2019
Preamplifier	R&S	SCU 18	10117	Aug. 07, 2018	Annual	Aug. 07, 2019
Preamplifier	MITEQ Inc.	JS44-18004000-35-8P	1546891	May 13, 2018	Annual	May 13, 2019
Test Receiver	R&S	ESU26	100109	Feb. 07, 2018	Annual	Feb. 07, 2019
Bilog Antenna	SCHWARZBECK MESSELEKTRONIK	VULB9163	01126	Mar. 26, 2018	Biennial	Mar. 26, 2020
Horn Antenna	R&S	HF906	100326	Feb. 14, 2018	Biennial	Feb. 14, 2020
Horn Antenna	SCHWARZBECK MESSELEKTRONIK	BBHA9170	BBHA9170223	Sep. 10, 2018	Biennial	Sep. 10, 2020
Antenna Master	Innco systems GmbH	MM4000	N/A	N.C.R.	N/A	N.C.R.
Turn Table	Innco systems GmbH	DS 1200S	N/A	N.C.R.	N/A	N.C.R.
Controller	Innco systems GmbH	CONTROLLER CO3000-4P	CO3000/963/38330516/L	N.C.R.	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.4 m)	N/A	N.C.R.	N/A	N.C.R.

▶ Support equipment

Description	Manufacturer	Model	Serial Number
N/A	-	-	-

1.6. Summary of test results

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 2, 22, 24 and 27		
Section in FCC part	**Test Item**	**Result**
§2.1046 §22.913(a)(5) §24.232(c) §27.50(b)(10) §27.50(d)(4)	RF Radiated Output Power	Complied
§2.1053 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(h)(1)	Spurious Radiated Emission	Complied
§2.1046	Conducted Output Power	Complied
§2.1049	Occupied Bandwidth	Complied
§22.913(d) §24.232(d) §27.50(d)(5)	Peak-Average Ratio	Complied
§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(h)(1)	Spurious Emission at Antenna Terminal	Complied
§22.917(a) §24.238(a) §27.53(c)(2) §27.53(h)(1)	Band Edge	Complied
§2.1055 §22.355 §24.235 §27.54	Frequency Stability	Complied

1.7. Test report revision

Revision	Report number	Date of Issue	Description
0	F690501/RF-RTL013115	2018.10.30	Initial

1.8. Sample calculation for offset

Where relevant, the following sample calculation is provided:

1.8.1. Conducted test

Offset value (㏈) = Directional Coupler (㏈) + Cable loss (㏈)

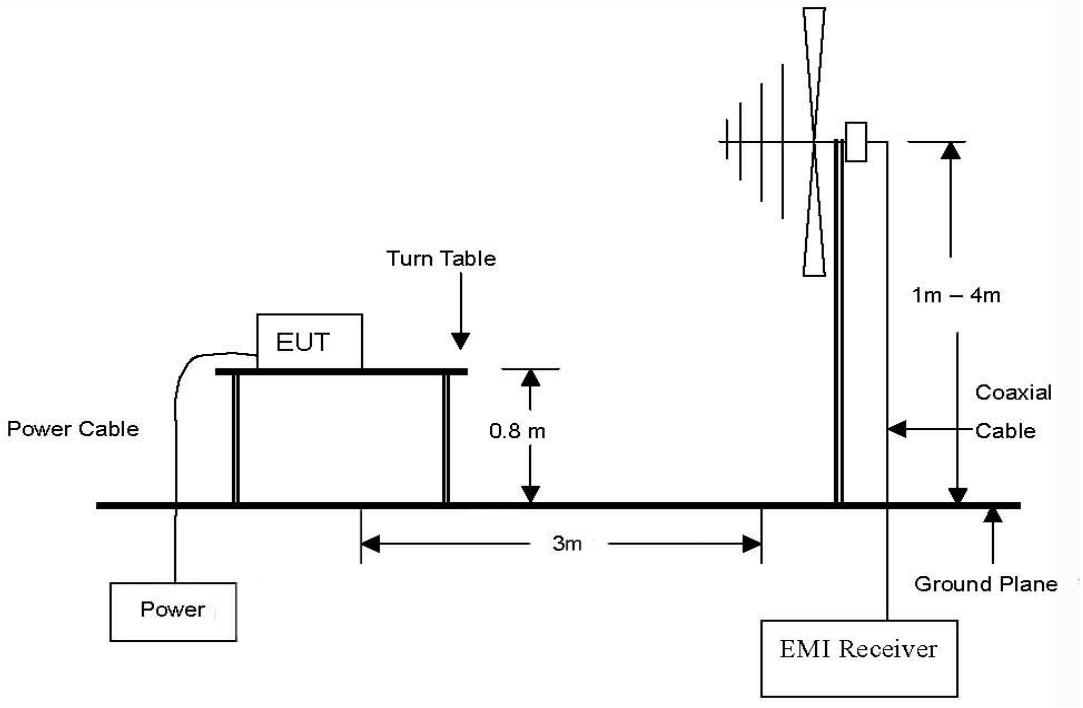
1.8.2. Radiation test

E.R.P. & E.I.R.P. = [S.G level + Amp.] (㏈ m) - Cable loss (㏈) + Ant. gain (㏈ d/㏈ i)

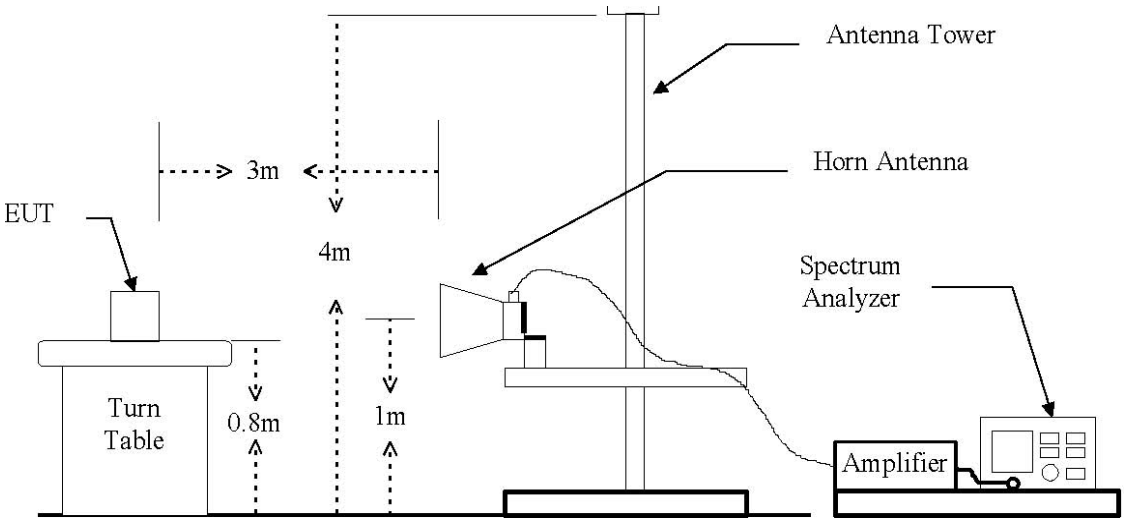
2. RF radiated output power & spurious radiated emission

2.1. Test setup

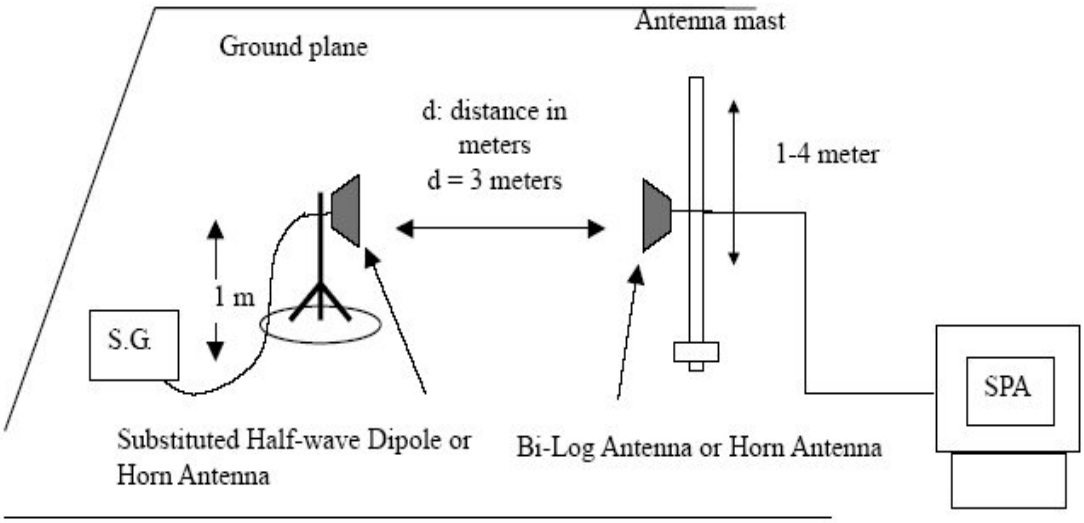
The diagram below shows the test setup that is utilized to make the measurements for emission from 30 ㎒ to 1 ㎓.



The diagram below shows the test setup that is utilized to make the measurements for emission from 1 ㎓ to 20 ㎓.



The diagram below shows the test setup for substituted method.



2.2. Limit

2.2.1. Limit of radiated output power

- §22.913(a)(5), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

- §24.232(c), mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

- §27.50(b)(10), portable stations (hand-held devices) transmitting in the 746-757 ㎒, 776-788 ㎒, and 805-806 ㎒ bands are limited to 3 watts ERP.

- §27.50(d)(4), fixed, mobile, and portable (hand-held) stations operating in the 1 710-1 755 ㎒ band and mobile and portable stations operating in the 1 695-1 710 ㎒ and 1 755-1 780 ㎒ bands are limited to 1 watt EIRP.

2.2.2. Limit of spurious radiated emission

- §22.917(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10log(P) ㏈.

- §24.238(a), the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) ㏈.

- §27.53(c)(2), on any frequency outside the 776-788 ㎒ band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) ㏈.

- §27.53(h)(1), for operations in the 1 695-1 710 ㎒, 1 710-1 755 ㎒, 1 755-1 780 ㎒, 1 915-1 920 ㎒, 1 995-2 000 ㎒, 2 000-2 020 ㎒, 2 110-2 155 ㎒, 2 155-2 180 ㎒, and 2 180-2 200 ㎒ bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) ㏈.

2.3. Test procedure: Based on ANSI/TIA 603E: 2016

1. On a test site, the EUT shall be placed at 80 cm height on a turn table, and in the position close to normal use as declared by the applicant.
2. The test antenna shall be oriented initially for vertical polarization located 3 m from EUT to correspond to the fundamental frequency of the transmitter.
3. The output of the test antenna shall be connected to the measuring receiver and the peak detector is used for the measurement.
4. The maximized power level is recorded using the spectrum analyzer “Channel Power” function with the integration band set to the emissions occupied bandwidth, RBW = 1-5 % of the OBW (not to exceed 1 ㎒), VBW ≥ 3 x RBW, Detector = power averaging (rms), sweep time = auto, trace average at least 100 traces in power averaging (rms) mode, per the guidelines of KDB Publication 971168 D01 v03r01.
5. Radiated spurious emissions measurement method was set as follows:
   RBW = 100 ㎑ for emissions below 1 ㎓ and 1 ㎒ for emissions above 1 ㎓, VBW ≥ 3 x RBW,
   Detector = Peak, trace mode = max hold, per the guidelines of KDB Publication 971168 D01 v03r01.
6. The transmitter shall be switched on, the measuring receiver shall be tuned to the frequency of the transmitter under test.
7. The test antenna shall be raised and lowered through the specified range of height until the maximum signal level is detected by the measuring receiver.
8. The transmitter shall be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver.
9. The test antenna shall be raised and lowered again through the specified range of height until the maximum signal level is detected by the measuring receiver.
10. The maximum signal level detected by the measuring receiver shall be noted.
11. The EUT was replaced by half-wave dipole (1 ㎓ below) or horn antenna (1 ㎓ above) connected to a signal generator.
12. In necessary, the input attenuator setting on the measuring receiver shall be adjusted in order to increase the sensitivity of the measuring receiver.
13. The test antenna shall be raised and lowered through the specified range of height to ensure that the maximum signal is received.
14. The input signal to the substitution antenna shall be adjusted to the level that produces a level detected by the measuring received, which is equal to the level noted while the transmitter radiated power was measured, corrected for the change of input attenuator setting of the measuring receiver.
15. The input level to the substitution antenna shall be recorded as power level in ㏈m, corrected for any change of input attenuator setting of the measuring receiver.
16. The measurement shall be repeated with the test antenna and the substitution antenna orientated for horizontal polarization.

2.4. Test result for RF radiated output power

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

LTE band 2 (1.4 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 850.70	H	13.55	4.33	8.53	17.75	59.57
1 850.70	V	20.93	4.33	8.53	25.13	325.84
1 880.00	H	16.15	4.34	8.63	20.44	110.66
1 880.00	V	20.07	4.34	8.63	24.36	272.90
1 909.30	H	13.76	4.36	8.60	18.00	63.10
1 909.30	V	16.89	4.36	8.60	21.13	129.72

* 1.4 BW 1RB size / 0 Offset for B2

LTE band 2 (1.4 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 850.70	H	12.63	4.33	8.53	16.83	48.19
1 850.70	V	20.07	4.33	8.53	24.27	267.30
1 880.00	H	15.01	4.34	8.63	19.30	85.11
1 880.00	V	19.16	4.34	8.63	23.45	221.31
1 909.30	H	12.28	4.36	8.60	16.52	44.87
1 909.30	V	16.08	4.36	8.60	20.32	107.65

* 1.4 BW 1RB size / 0 Offset for B2

LTE band 2 (3 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 851.50	H	13.72	4.33	8.54	17.93	62.09
1 851.50	V	21.22	4.33	8.54	25.43	349.14
1 880.00	H	15.75	4.34	8.63	20.04	100.93
1 880.00	V	20.50	4.34	8.63	24.79	301.30
1 908.50	H	14.32	4.36	8.61	18.57	71.94
1 908.50	V	17.50	4.36	8.61	21.75	149.62

* 3 BW 1RB size / 0 Offset for B2

LTE band 2 (3 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 851.50	H	13.60	4.33	8.54	17.81	60.39
1 851.50	V	20.71	4.33	8.54	24.92	310.46
1 880.00	H	14.58	4.34	8.63	18.87	77.09
1 880.00	V	19.52	4.34	8.63	23.81	240.44
1 908.50	H	13.06	4.36	8.61	17.31	53.83
1 908.50	V	16.48	4.36	8.61	20.73	118.30

* 3 BW 1RB size / 0 Offset for B2

LTE band 2 (5 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 852.50	H	13.94	4.33	8.54	18.15	65.31
1 852.50	V	21.43	4.33	8.54	25.64	366.44
1 880.00	H	15.34	4.34	8.63	19.63	91.83
1 880.00	V	20.46	4.34	8.63	24.75	298.54
1 907.50	H	14.16	4.36	8.62	18.42	69.50
1 907.50	V	17.88	4.36	8.62	22.14	163.68

* 5 BW 1RB size / 0 Offset for B2

LTE band 2 (5 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 852.50	H	13.38	4.33	8.54	17.59	57.41
1 852.50	V	20.63	4.33	8.54	24.84	304.79
1 880.00	H	14.45	4.34	8.63	18.74	74.82
1 880.00	V	19.48	4.34	8.63	23.77	238.23
1 907.50	H	13.01	4.36	8.62	17.27	53.33
1 907.50	V	16.98	4.36	8.62	21.24	133.05

* 5 BW 1RB size / 0 Offset for B2

LTE band 2 (10 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 855.00	H	14.36	4.33	8.55	18.58	72.11
1 855.00	V	21.49	4.33	8.55	25.71	372.39
1 880.00	H	15.51	4.34	8.63	19.80	95.50
1 880.00	V	20.61	4.34	8.63	24.90	309.03
1 905.00	H	14.20	4.36	8.64	18.48	70.47
1 905.00	V	19.25	4.36	8.64	23.53	225.42

* 10 BW 1RB size / 0 Offset for B2

LTE band 2 (10 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 855.00	H	13.87	4.33	8.55	18.09	64.42
1 855.00	V	20.44	4.33	8.55	24.66	292.42
1 880.00	H	14.18	4.34	8.63	18.47	70.31
1 880.00	V	19.49	4.34	8.63	23.78	238.78
1 905.00	H	13.44	4.36	8.64	17.72	59.16
1 905.00	V	18.43	4.36	8.64	22.71	186.64

* 10 BW 1RB size / 0 Offset for B2

LTE band 2 (15 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 857.50	H	14.24	4.33	8.55	18.46	70.15
1 857.50	V	21.15	4.33	8.55	25.37	344.35
1 880.00	H	15.34	4.34	8.63	19.63	91.83
1 880.00	V	20.64	4.34	8.63	24.93	311.17
1 902.50	H	14.91	4.35	8.67	19.23	83.75
1 902.50	V	19.29	4.35	8.67	23.61	229.61

* 15 BW 1RB size / 0 Offset for B2

LTE band 2 (15 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 857.50	H	13.69	4.33	8.55	17.91	61.80
1 857.50	V	20.62	4.33	8.55	24.84	304.79
1 880.00	H	13.92	4.34	8.63	18.21	66.22
1 880.00	V	19.57	4.34	8.63	23.86	243.22
1 902.50	H	13.70	4.35	8.67	18.02	63.39
1 902.50	V	18.22	4.35	8.67	22.54	179.47

* 15 BW 1RB size / 0 Offset for B2

LTE band 2 (20 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 860.00	H	14.34	4.33	8.56	18.57	71.94
1 860.00	V	21.21	4.33	8.56	25.44	349.95
1 880.00	H	14.85	4.34	8.63	19.14	82.04
1 880.00	V	20.55	4.34	8.63	24.84	304.79
1 900.00	H	14.69	4.35	8.70	19.04	80.17
1 900.00	V	19.21	4.35	8.70	23.56	226.99

* 20 BW 1RB size / 0 Offset for B2

LTE band 2 (20 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 860.00	H	13.43	4.33	8.56	17.66	58.34
1 860.00	V	19.48	4.33	8.56	23.71	234.96
1 880.00	H	14.20	4.34	8.63	18.49	70.63
1 880.00	V	19.91	4.34	8.63	24.20	263.03
1 900.00	H	14.03	4.35	8.70	18.38	68.87
1 900.00	V	18.59	4.35	8.70	22.94	196.79

* 20 BW 1RB size / 0 Offset for B2

LTE band 4 (1.4 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 710.70	H	10.26	4.14	8.51	14.63	29.04
1 710.70	V	16.78	4.14	8.51	21.15	130.32
1 732.50	H	13.00	4.18	8.48	17.30	53.70
1 732.50	V	19.47	4.18	8.48	23.77	238.23
1 754.30	H	10.98	4.22	8.44	15.20	33.11
1 754.30	V	19.53	4.22	8.44	23.75	237.14

* 1.4 BW 1RB size / 0 Offset for B4

LTE band 4 (1.4 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 710.70	H	9.18	4.14	8.51	13.55	22.65
1 710.70	V	16.06	4.14	8.51	20.43	110.41
1 732.50	H	12.03	4.18	8.48	16.33	42.95
1 732.50	V	17.78	4.18	8.48	22.08	161.44
1 754.30	H	10.64	4.22	8.44	14.86	30.62
1 754.30	V	18.37	4.22	8.44	22.59	181.55

* 1.4 BW 1RB size / 0 Offset for B4

LTE band 4 (3 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 711.50	H	10.79	4.14	8.51	15.16	32.81
1 711.50	V	17.51	4.14	8.51	21.88	154.17
1 732.50	H	12.96	4.18	8.48	17.26	53.21
1 732.50	V	19.54	4.18	8.48	23.84	242.10
1 753.50	H	11.64	4.22	8.44	15.86	38.55
1 753.50	V	19.48	4.22	8.44	23.70	234.42

* 3 BW 1RB size / 0 Offset for B4

LTE band 4 (3 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 711.50	H	9.69	4.14	8.51	14.06	25.47
1 711.50	V	16.58	4.14	8.51	20.95	124.45
1 732.50	H	11.28	4.18	8.48	15.58	36.14
1 732.50	V	17.95	4.18	8.48	22.25	167.88
1 753.50	H	10.58	4.22	8.44	14.80	30.20
1 753.50	V	18.34	4.22	8.44	22.56	180.30

* 3 BW 1RB size / 0 Offset for B4

LTE band 4 (5 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 712.50	H	10.78	4.14	8.51	15.15	32.73
1 712.50	V	17.26	4.14	8.51	21.63	145.55
1 732.50	H	12.66	4.18	8.48	16.96	49.66
1 732.50	V	19.36	4.18	8.48	23.66	232.27
1 752.50	H	11.31	4.21	8.44	15.54	35.81
1 752.50	V	19.09	4.21	8.44	23.32	214.78

* 5 BW 1RB size / 0 Offset for B4

LTE band 4 (5 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 712.50	H	10.01	4.14	8.51	14.38	27.42
1 712.50	V	16.20	4.14	8.51	20.57	114.02
1 732.50	H	11.28	4.18	8.48	15.58	36.14
1 732.50	V	18.16	4.18	8.48	22.46	176.20
1 752.50	H	10.33	4.21	8.44	14.56	28.58
1 752.50	V	18.22	4.21	8.44	22.45	175.79

* 5 BW 1RB size / 0 Offset for B4

LTE band 4 (10 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 715.00	H	10.70	4.15	8.50	15.05	31.99
1 715.00	V	17.69	4.15	8.50	22.04	159.96
1 732.50	H	13.25	4.18	8.48	17.55	56.89
1 732.50	V	20.06	4.18	8.48	24.36	272.90
1 750.00	H	12.06	4.21	8.45	16.30	42.66
1 750.00	V	18.69	4.21	8.45	22.93	196.34

* 10 BW 1RB size / 0 Offset for B4

LTE band 4 (10 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 715.00	H	9.87	4.15	8.50	14.22	26.42
1 715.00	V	17.46	4.15	8.50	21.81	151.71
1 732.50	H	11.74	4.18	8.48	16.04	40.18
1 732.50	V	18.47	4.18	8.48	22.77	189.23
1 750.00	H	11.19	4.21	8.45	15.43	34.91
1 750.00	V	17.81	4.21	8.45	22.05	160.32

* 10 BW 1RB size / 0 Offset for B4

LTE band 4 (15 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 717.50	H	11.07	4.15	8.50	15.42	34.83
1 717.50	V	17.80	4.15	8.50	22.15	164.06
1 732.50	H	13.10	4.18	8.48	17.40	54.95
1 732.50	V	19.87	4.18	8.48	24.17	261.22
1 747.50	H	12.59	4.21	8.45	16.83	48.19
1 747.50	V	18.71	4.21	8.45	22.95	197.24

* 15 BW 1RB size / 0 Offset for B4

LTE band 4 (15 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 717.50	H	10.85	4.15	8.50	15.20	33.11
1 717.50	V	17.47	4.15	8.50	21.82	152.05
1 732.50	H	12.39	4.18	8.48	16.69	46.67
1 732.50	V	18.77	4.18	8.48	23.07	202.77
1 747.50	H	11.46	4.21	8.45	15.70	37.15
1 747.50	V	18.11	4.21	8.45	22.35	171.79

* 15 BW 1RB size / 0 Offset for B4

LTE band 4 (20 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 720.00	H	11.58	4.16	8.50	15.92	39.08
1 720.00	V	18.25	4.16	8.50	22.59	181.55
1 732.50	H	13.03	4.18	8.48	17.33	54.08
1 732.50	V	19.51	4.18	8.48	23.81	240.44
1 745.00	H	13.30	4.20	8.46	17.56	57.02
1 745.00	V	19.76	4.20	8.46	24.02	252.35

* 20 BW 1RB size / 0 Offset for B4

LTE band 4 (20 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P.	
					(dB m)	(㎽)
1 720.00	H	9.81	4.16	8.50	14.15	26.00
1 720.00	V	17.03	4.16	8.50	21.37	137.09
1 732.50	H	12.11	4.18	8.48	16.41	43.75
1 732.50	V	19.03	4.18	8.48	23.33	215.28
1 745.00	H	12.21	4.20	8.46	16.47	44.36
1 745.00	V	19.41	4.20	8.46	23.67	232.81

* 20 BW 1RB size / 0 Offset for B4

LTE band 5 (1.4 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
824.70	H	28.73	3.26	-4.93	20.54	113.24
824.70	V	29.23	3.26	-4.93	21.04	127.06
836.50	H	28.63	3.45	-5.15	20.03	100.69
836.50	V	30.32	3.45	-5.15	21.72	148.59
848.30	H	29.14	3.52	-4.09	21.53	142.23
848.30	V	28.92	3.52	-4.09	21.31	135.21

* 1.4 BW 1RB size / 0 Offset for B5

LTE band 5 (1.4 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
824.70	H	27.42	3.26	-4.93	19.23	83.75
824.70	V	28.53	3.26	-4.93	20.34	108.14
836.50	H	27.92	3.45	-5.15	19.32	85.51
836.50	V	28.50	3.45	-5.15	19.90	97.72
848.30	H	28.48	3.52	-4.09	20.87	122.18
848.30	V	28.10	3.52	-4.09	20.49	111.94

* 1.4 BW 1RB size / 0 Offset for B5

LTE band 5 (3 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
825.50	H	29.38	3.28	-5.05	21.05	127.35
825.50	V	29.94	3.28	-5.05	21.61	144.88
836.50	H	28.95	3.45	-5.15	20.35	108.39
836.50	V	30.28	3.45	-5.15	21.68	147.23
847.50	H	29.25	3.52	-4.16	21.57	143.55
847.50	V	29.09	3.52	-4.16	21.41	138.36

* 3 BW 1RB size / 0 Offset for B5

LTE band 5 (3 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
825.50	H	28.53	3.28	-5.05	20.20	104.71
825.50	V	29.40	3.28	-5.05	21.07	127.94
836.50	H	27.62	3.45	-5.15	19.02	79.80
836.50	V	28.63	3.45	-5.15	20.03	100.69
847.50	H	27.86	3.52	-4.16	20.18	104.23
847.50	V	28.25	3.52	-4.16	20.57	114.02

* 3 BW 1RB size / 0 Offset for B5

LTE band 5 (5 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
826.50	H	29.49	3.31	-5.20	20.98	125.31
826.50	V	30.33	3.31	-5.20	21.82	152.05
836.50	H	28.48	3.45	-5.15	19.88	97.27
836.50	V	30.31	3.45	-5.15	21.71	148.25
846.50	H	29.00	3.51	-4.25	21.24	133.05
846.50	V	29.47	3.51	-4.25	21.71	148.25

* 5 BW 1RB size / 0 Offset for B5

LTE band 5 (5 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
826.50	H	28.89	3.31	-5.20	20.38	109.14
826.50	V	28.69	3.31	-5.20	20.18	104.23
836.50	H	26.75	3.45	-5.15	18.15	65.31
836.50	V	28.85	3.45	-5.15	20.25	105.93
846.50	H	27.54	3.51	-4.25	19.78	95.06
846.50	V	28.90	3.51	-4.25	21.14	130.02

* 5 BW 1RB size / 0 Offset for B5

LTE band 5 (10 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
829.00	H	30.32	3.38	-5.58	21.36	136.77
829.00	V	31.71	3.38	-5.58	22.75	188.36
836.50	H	28.61	3.45	-5.15	20.01	100.23
836.50	V	30.54	3.45	-5.15	21.94	156.31
844.00	H	28.89	3.49	-4.48	20.92	123.59
844.00	V	30.27	3.49	-4.48	22.30	169.82

* 10 BW 1RB size / 0 Offset for B5

LTE band 5 (10 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
829.00	H	29.69	3.38	-5.58	20.73	118.30
829.00	V	31.04	3.38	-5.58	22.08	161.44
836.50	H	27.57	3.45	-5.15	18.97	78.89
836.50	V	29.57	3.45	-5.15	20.97	125.03
844.00	H	27.74	3.49	-4.48	19.77	94.84
844.00	V	29.43	3.49	-4.48	21.46	139.96

* 10 BW 1RB size / 0 Offset for B5

LTE band 13 (5 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
779.50	H	27.61	2.98	-3.69	20.94	124.17
779.50	V	25.84	2.98	-3.69	19.17	82.60
782.00	H	27.26	3.04	-3.64	20.58	114.29
782.00	V	25.91	3.04	-3.64	19.23	83.75
784.50	H	25.73	3.14	-3.59	19.00	79.43
784.50	V	26.08	3.14	-3.59	19.35	86.10

* 5 BW 1RB size / 0 Offset for B13

LTE band 13 (5 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
779.50	H	25.69	2.98	-3.69	19.02	79.80
779.50	V	24.71	2.98	-3.69	18.04	63.68
782.00	H	24.12	3.04	-3.64	17.44	55.46
782.00	V	24.81	3.04	-3.64	18.13	65.01
784.50	H	22.79	3.14	-3.59	16.06	40.36
784.50	V	25.14	3.14	-3.59	18.41	69.34

* 5 BW 1RB size / 0 Offset for B13

LTE band 13 (10 ㎒ - QPSK)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
782.00	H	26.40	3.04	-3.64	19.72	93.76
782.00	V	26.32	3.04	-3.64	19.64	92.04

* 10 BW 1RB size / 0 Offset for B13

LTE band 13 (10 ㎒ - 16QAM)

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB d)	E.R.P.	
					(dB m)	(㎽)
782.00	H	25.24	3.04	-3.64	18.56	71.78
782.00	V	25.10	3.04	-3.64	18.42	69.50

* 10 BW 1RB size / 0 Offset for B13

Remark:

1. E.R.P. & E.I.R.P. = [S.G level + Amp.] (dB m) - Cable loss (dB) + Ant. gain (dB d/dB i)
2. This device was tested under all bandwidths, RB configurations and modulations.
3. The data reported in the table above was measured in worst case.

2.5. Spurious radiated emission

- Measured output Power: 25.13 ㏈m = 0.325 8 W
- Modulation Signal: LTE band 2 (1.4 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 38.13 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈i)	E.I.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (1 850.7 ㎒)							
2 454.91	V	-45.59	4.80	9.18	-41.21	-13.00	-28.21
2 543.09	H	-40.26	4.87	9.04	-36.09	-13.00	-23.09
2 546.29	V	-46.39	4.87	9.03	-42.23	-13.00	-29.23
3 703.41	H	-49.61	5.98	9.07	-46.52	-13.00	-33.52
3 703.41	V	-45.31	5.98	9.07	-42.22	-13.00	-29.22
5 540.08	H	-52.01	7.54	10.62	-48.93	-13.00	-35.93
5559.62	V	-47.96	7.53	10.64	-44.85	-13.00	-31.85
6 985.97	H	-50.15	8.99	11.70	-47.44	-13.00	-34.44
9 252.51	H	-49.54	10.15	12.63	-47.06	-13.00	-34.06
Middle Channel (1 880.0 ㎒)							
2 419.64	V	-45.34	4.79	9.22	-40.91	-13.00	-27.91
2 450.10	H	-44.41	4.80	9.19	-40.02	-13.00	-27.02
2 503.01	H	-46.20	4.81	9.13	-41.88	-13.00	-28.88
3 762.02	H	-48.38	6.27	9.13	-45.52	-13.00	-32.52
3 762.02	V	-44.53	6.27	9.13	-41.67	-13.00	-28.67
5 637.78	H	-46.55	7.64	10.89	-43.30	-13.00	-30.30
5 637.78	V	-44.40	7.64	10.89	-41.15	-13.00	-28.15

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 909.3 ㎒)							
2 503.01	H	-42.98	4.81	9.13	-38.66	-13.00	-25.66
2 503.01	V	-41.90	4.81	9.13	-37.58	-13.00	-24.58
3 801.10	H	-51.98	6.46	9.16	-49.28	-13.00	-36.28
3 801.10	V	-48.35	6.46	9.16	-45.65	-13.00	-32.65
5 735.47	H	-44.36	7.87	11.27	-40.96	-13.00	-27.96
5 735.47	V	-43.41	7.87	11.27	-40.01	-13.00	-27.01
7 630.76	H	-49.74	9.03	11.75	-47.02	-13.00	-34.02
7 630.76	V	-44.36	9.03	11.75	-41.64	-13.00	-28.64

* 1.4 BW 1RB size / 0 Offset for B2

- Measured output Power: 25.43 ㏈m = 0.349 1 W
- Modulation Signal: LTE band 2 (3 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 38.43 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈i)	E.I.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (1 851.5 ㎒)							
2 419.64	V	-48.41	4.79	9.22	-43.98	-13.00	-30.98
2 642.48	V	-47.00	4.98	8.98	-43.00	-13.00	-30.00
3 703.41	H	-48.92	5.98	9.07	-45.83	-13.00	-32.83
3 703.41	V	-44.29	5.98	9.07	-41.20	-13.00	-28.20
5 540.08	V	-45.69	7.54	10.62	-42.61	-13.00	-29.61
5 559.62	H	-51.46	7.53	10.64	-48.35	-13.00	-35.35
Middle Channel (1 880.0 ㎒)							
2 414.83	V	-47.44	4.78	9.22	-43.00	-13.00	-30.00
2 504.61	H	-45.86	4.82	9.13	-41.55	-13.00	-28.55
2 504.61	V	-42.72	4.82	9.13	-38.41	-13.00	-25.41
3 762.02	H	-50.13	6.27	9.13	-47.27	-13.00	-34.27
3 762.02	V	-44.83	6.27	9.13	-41.97	-13.00	-28.97
5 637.78	V	-43.72	7.64	10.89	-40.47	-13.00	27.47
5 657.31	H	-46.53	7.70	11.01	-43.22	-13.00	30.22
7 513.53	V	-50.06	9.05	11.84	-47.27	-13.00	34.27
High Channel (1 908.5 ㎒)							
2 435.67	H	-45.59	4.79	9.20	-41.18	-13.00	-28.18
2 450.10	V	-47.20	4.80	9.19	-42.81	-13.00	-29.81
3 801.10	H	-51.37	6.46	9.16	-48.67	-13.00	-35.67
3 801.10	V	-49.91	6.46	9.16	-47.21	-13.00	-34.21
5 696.39	V	-44.29	7.82	11.25	-40.86	-13.00	-27.86
5 735.47	H	-43.57	7.87	11.27	-40.17	-13.00	27.17
7 630.76	H	-48.22	9.03	11.75	-45.50	-13.00	32.50
7 630.76	V	-44.95	9.03	11.75	-42.23	-13.00	29.23

* 3 BW 1RB size / 0 Offset for B2

- Measured output Power: 25.64 dB m = 0.366 4 W
- Modulation Signal: LTE band 2 (5 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$ (W) = 38.64 dB c

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (1 852.5 MHz)							
2 504.61	V	-40.32	4.82	9.13	-36.01	-13.00	-23.01
3 703.41	H	-51.42	5.98	9.07	-48.33	-13.00	-35.33
3 703.41	V	-45.16	5.98	9.07	-42.07	-13.00	-29.07
5 540.08	H	-49.38	7.54	10.62	-46.30	-13.00	-33.30
5 540.08	V	-47.07	7.54	10.62	-43.99	-13.00	-30.99
Middle Channel (1 880.0 MHz)							
2 422.85	H	-47.65	4.79	9.21	-43.23	-13.00	-30.23
2 430.86	V	-45.36	4.79	9.20	-40.95	-13.00	-27.95
2 464.53	V	-46.60	4.80	9.17	-42.23	-13.00	-29.23
2 543.09	H	-42.74	4.87	9.04	-38.57	-13.00	-25.57
3 762.02	H	-48.82	6.27	9.13	-45.96	-13.00	-32.96
3 762.02	V	-43.41	6.27	9.13	-40.55	-13.00	-27.55
5 657.31	H	-47.51	7.70	11.01	-44.20	-13.00	-31.20
5 657.31	V	-43.08	7.70	11.01	-39.77	-13.00	-26.77
7 493.99	V	-47.05	9.06	11.85	-44.26	-13.00	-31.26
High Channel (1 907.5 MHz)							
2 503.01	H	-46.69	4.81	9.13	-42.37	-13.00	-29.37
3 801.10	H	-52.95	6.46	9.16	-50.25	-13.00	-37.25
3 820.64	V	-51.14	6.52	9.15	-48.51	-13.00	-35.51
5 696.39	V	-44.62	7.82	11.25	-41.19	-13.00	-28.19
5 735.47	H	-46.36	7.87	11.27	-42.96	-13.00	-29.96
7 611.22	H	-49.43	9.09	11.78	-46.74	-13.00	-33.74
7 611.22	V	-45.85	9.09	11.78	-43.16	-13.00	-30.16
9 545.59	V	-48.11	10.24	12.62	-45.73	-13.00	-32.73

* 5 BW 1RB size / 0 Offset for B2

- Measured output Power: 25.71 dB m = 0.372 4 W
- Modulation Signal: LTE band 2 (10 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 38.71 dB c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
Low Channel (1 855.0 ㎒)							
2 432.46	V	-47.34	4.79	9.20	-42.93	-13.00	-29.93
2 541.48	H	-45.67	4.87	9.04	-41.50	-13.00	-28.50
3 683.87	H	-49.84	5.93	9.12	-46.65	-13.00	-33.65
3 703.41	V	-45.92	5.98	9.07	-42.83	-13.00	-29.83
5 540.08	V	-45.88	7.54	10.62	-42.80	-13.00	-29.80
5 559.62	H	-51.13	7.53	10.64	-48.02	-13.00	-35.02
Middle Channel (1 880.0 ㎒)							
2 458.12	V	-46.87	4.80	9.18	-42.49	-13.00	-29.49
3 762.02	H	-48.52	6.27	9.13	-45.66	-13.00	-32.66
3 762.02	V	-40.67	6.27	9.13	-37.81	-13.00	-24.81
5 618.24	H	-49.45	7.58	10.77	-46.26	-13.00	-33.26
5 618.24	V	-42.05	7.58	10.77	-38.86	-13.00	-25.86
7 493.99	V	-46.80	9.06	11.85	-44.01	-13.00	-31.01
High Channel (1 905.0 ㎒)							
2 434.07	V	-47.67	4.79	9.20	-43.26	-13.00	-30.26
2 458.12	H	-42.46	4.80	9.18	-38.08	-13.00	-25.08
2 541.48	H	-39.37	4.87	9.04	-35.20	-13.00	-22.20
3 801.10	H	-51.82	6.46	9.16	-49.12	-13.00	-36.12
3 801.10	V	-46.37	6.46	9.16	-43.67	-13.00	-30.67
5 676.85	H	-44.00	7.76	11.13	-40.63	-13.00	-27.63
5 676.85	V	-41.29	7.76	11.13	-37.92	-13.00	-24.92
7 591.68	H	-49.52	9.11	11.80	-46.83	-13.00	-33.83
7 591.68	V	-44.56	9.11	11.80	-41.87	-13.00	-28.87

* 10 BW 1RB size / 0 Offset for B2

- Measured output Power: 25.37 dBm = 0.344 3 W
- Modulation Signal: LTE band 2 (15 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 38.37 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 857.5 MHz)							
2 427.66	V	-45.29	4.79	9.21	-40.87	-13.00	-27.87
2 501.40	H	-44.21	4.81	9.14	-39.88	-13.00	-26.88
2 503.01	V	-43.06	4.81	9.13	-38.74	-13.00	-25.74
3 703.41	H	-50.47	5.98	9.07	-47.38	-13.00	-34.38
3 703.41	V	-46.07	5.98	9.07	-42.98	-13.00	-29.98
5 559.62	H	-49.67	7.53	10.64	-46.56	-13.00	-33.56
5 559.62	V	-47.01	7.53	10.64	-43.90	-13.00	-30.90
7 396.29	V	-49.05	9.29	12.03	-46.31	-13.00	-33.31
8 666.33	V	-49.81	9.81	12.29	-47.33	-13.00	-34.33
Middle Channel (1 880.0 MHz)							
2 458.12	V	-44.01	4.80	9.18	-39.63	-13.00	-26.63
2 501.40	V	-45.20	4.81	9.14	-40.87	-13.00	-27.87
2 503.01	H	-44.62	4.81	9.13	-40.30	-13.00	-27.30
3 742.48	H	-48.75	6.17	9.11	-45.81	-13.00	-32.81
3 742.48	V	-44.54	6.17	9.11	-41.60	-13.00	-28.60
5 618.24	H	-50.54	7.58	10.77	-47.35	-13.00	-34.35
5 618.24	V	-45.34	7.58	10.77	-42.15	-13.00	-29.15
7 493.99	V	-46.92	9.06	11.85	-44.13	-13.00	-31.13

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 902.5 ㎒)							
2 421.24	V	-45.70	4.79	9.21	-41.28	-13.00	-28.28
2 448.50	H	-45.15	4.79	9.19	-40.75	-13.00	-27.75
2 462.93	V	-45.11	4.80	9.17	-40.74	-13.00	-27.74
2 503.01	V	-42.09	4.81	9.13	-37.77	-13.00	-24.77
3 781.56	H	-51.18	6.37	9.15	-48.40	-13.00	-35.40
3 781.56	V	-48.87	6.37	9.15	-46.09	-13.00	-33.09
5 676.85	H	-48.58	7.76	11.13	-45.21	-13.00	-32.21
5 696.39	V	-44.09	7.82	11.25	-40.66	-13.00	-27.66
7 572.14	H	-49.88	9.10	11.81	-47.17	-13.00	-34.17
7 572.14	V	-46.05	9.10	11.81	-43.34	-13.00	-30.34

* 15 BW 1RB size / 0 Offset for B2

- Measured output Power: 25.44 dBm = 0.349 9 W
- Modulation Signal: LTE band 2 (20 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 38.44 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 860.0 MHz)							
2 501.40	V	-45.39	4.81	9.14	-41.06	-13.00	-28.06
2 506.21	H	-45.20	4.82	9.12	-40.90	-13.00	-27.90
3 703.41	H	-51.28	5.98	9.07	-48.19	-13.00	-35.19
3 703.41	V	-45.94	5.98	9.07	-42.85	-13.00	-29.85
5 540.08	H	-50.08	7.54	10.62	-47.00	-13.00	-34.00
5 579.16	V	-47.18	7.53	10.65	-44.06	-13.00	-31.06
7 396.29	H	-50.73	9.29	12.03	-47.99	-13.00	-34.99
9 272.04	V	-49.05	10.19	12.67	-46.57	-13.00	-33.57
Middle Channel (1 880.0 MHz)							
2 422.85	V	-46.30	4.79	9.21	-41.88	-13.00	-28.88
2 501.40	H	-43.00	4.81	9.14	-38.67	-13.00	-25.67
2 503.01	V	-45.17	4.81	9.13	-40.85	-13.00	-27.85
3 742.48	H	-47.71	6.17	9.11	-44.77	-13.00	-31.77
3 742.48	V	-43.50	6.17	9.11	-40.56	-13.00	-27.56
5 618.24	H	-49.22	7.58	10.77	-46.03	-13.00	-33.03
5 618.24	V	-44.13	7.58	10.77	-40.94	-13.00	-27.94
7 474.45	H	-50.18	9.10	11.89	-47.39	-13.00	-34.39
7 493.99	V	-50.03	9.06	11.85	-47.24	-13.00	-34.24

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 900.0 ㎒)							
2 501.40	H	-42.08	4.81	9.14	-37.75	-13.00	-24.75
2 504.61	V	-41.14	4.82	9.13	-36.83	-13.00	-23.83
3 762.02	H	-52.11	6.27	9.13	-49.25	-13.00	-36.25
3 801.10	V	-48.00	6.46	9.16	-45.30	-13.00	-32.30
5 657.31	H	-48.71	7.70	11.01	-45.40	-13.00	-32.40
5 657.31	V	-45.00	7.70	11.01	-41.69	-13.00	-28.69
7 552.61	V	-49.30	9.08	11.82	-46.56	-13.00	-33.56

* 20 BW 1RB size / 0 Offset for B2

- Measured output Power: 23.77 dBm = 0.238 2 W
- Modulation Signal: LTE band 4 (1.4 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 36.77 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 710.7 MHz)							
2 501.40	V	-47.69	4.81	9.14	-43.36	-13.00	-30.36
3 410.32	H	-32.37	5.87	9.27	-28.97	-13.00	-15.97
3 410.32	V	-31.43	5.87	9.27	-28.03	-13.00	-15.03
5 110.22	V	-51.27	7.56	10.40	-48.43	-13.00	-35.43
6 849.20	H	-42.17	8.72	11.69	-39.20	-13.00	-26.20
6 849.20	V	-41.00	8.72	11.69	-38.03	-13.00	-25.03
8 549.10	H	-47.99	9.83	12.39	-45.43	-13.00	-32.43
8 549.10	V	-45.49	9.83	12.39	-42.93	-13.00	-29.93
10 249.00	H	-43.66	10.92	13.28	-41.30	-13.00	-28.30
10 268.54	V	-44.42	10.95	13.31	-42.06	-13.00	-29.06
Middle Channel (1 732.5 MHz)							
3 449.40	V	-38.16	5.90	9.25	-34.81	-13.00	-21.81
3 468.94	H	-38.25	5.92	9.23	-34.94	-13.00	-21.94
5 188.38	H	-51.23	7.73	10.58	-48.38	-13.00	-35.38
5 188.38	V	-47.25	7.73	10.58	-44.40	-13.00	-31.40
6 927.35	V	-49.02	8.90	11.66	-46.26	-13.00	-33.26
8 666.33	H	-44.40	9.81	12.29	-41.92	-13.00	-28.92
8 666.33	V	-39.56	9.81	12.29	-37.08	-13.00	-24.08
10 385.77	H	-43.75	11.02	13.28	-41.49	-13.00	-28.49
10 385.77	V	-45.91	11.02	13.28	-43.65	-13.00	-30.65

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 754.3 ㎒)							
2 459.72	V	-47.51	4.80	9.18	-43.13	-13.00	-30.13
2 503.01	H	-47.44	4.81	9.13	-43.12	-13.00	-30.12
3 488.48	H	-44.48	5.94	9.22	-41.20	-13.00	-28.20
3 508.02	V	-45.33	5.93	9.23	-42.03	-13.00	-29.03
5 266.53	V	-48.49	7.67	10.72	-45.44	-13.00	-32.44
7 005.51	H	-48.44	9.00	11.70	-45.74	-13.00	-32.74
7 005.51	V	-45.88	9.00	11.70	-43.18	-13.00	-30.18
8 764.03	V	-39.68	9.83	12.20	-37.31	-13.00	-24.31
8 783.57	H	-44.90	9.84	12.17	-42.57	-13.00	-29.57

* 1.4 BW 1RB size / 0 Offset for B4

- Measured output Power: 23.84 dBm = 0.242 1 W
- Modulation Signal: LTE band 4 (3 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 36.84 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 711.5 MHz)							
2 459.72	H	-45.53	4.80	9.18	-41.15	-13.00	-28.15
2 507.82	V	-46.69	4.82	9.12	-42.39	-13.00	-29.39
3 410.32	V	-31.17	5.87	9.27	-27.77	-13.00	-14.77
3 429.86	H	-31.03	5.89	9.26	-27.66	-13.00	-14.66
5 129.76	V	-51.20	7.61	10.44	-48.37	-13.00	-35.37
6 849.20	H	-42.47	8.72	11.69	-39.50	-13.00	-26.50
6 868.74	V	-41.67	8.77	11.67	-38.77	-13.00	-25.77
8 568.64	V	-44.54	9.82	12.35	-42.01	-13.00	-29.01
10 249.00	H	-43.61	10.92	13.28	-41.25	-13.00	-28.25
10 268.54	V	-45.63	10.95	13.31	-43.27	-13.00	-30.27
Middle Channel (1 732.5 MHz)							
2 461.32	V	-48.11	4.80	9.18	-43.73	-13.00	-30.73
2 462.93	H	-48.10	4.80	9.17	-43.73	-13.00	-30.73
2 546.29	V	-42.77	4.87	9.03	-38.61	-13.00	-25.61
2 583.17	H	-47.17	4.93	8.95	-43.15	-13.00	-30.15
3 449.40	H	-38.96	5.90	9.25	-35.61	-13.00	-22.61
3 468.94	V	-37.57	5.92	9.23	-34.26	-13.00	-21.26
5 207.92	V	-46.47	7.75	10.62	-43.60	-13.00	-30.60
8 646.79	V	-40.93	9.81	12.29	-38.45	-13.00	-25.45
8 666.33	H	-45.43	9.81	12.29	-42.95	-13.00	-29.95
10 385.77	H	-44.12	11.02	13.28	-41.86	-13.00	-28.86
10 385.77	V	-46.13	11.02	13.28	-43.87	-13.00	-30.87

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 753.5 ㎒)							
2 458.12	H	-47.15	4.80	9.18	-42.77	-13.00	-29.77
2 461.32	V	-48.27	4.80	9.18	-43.89	-13.00	-30.89
2 501.40	H	-44.72	4.81	9.14	-40.39	-13.00	-27.39
2 501.40	V	-47.35	4.81	9.14	-43.02	-13.00	-30.02
3 508.02	H	-44.88	5.93	9.23	-41.58	-13.00	-28.58
3 508.02	V	-45.83	5.93	9.23	-42.53	-13.00	-29.53
5 246.99	V	-49.92	7.70	10.69	-46.93	-13.00	-33.93
6 985.97	H	-48.26	8.99	11.70	-45.55	-13.00	-32.55
6 985.97	V	-45.22	8.99	11.70	-42.51	-13.00	-29.51
8 744.49	V	-40.32	9.82	12.23	-37.91	-13.00	-24.91
8 764.03	H	-43.09	9.83	12.20	-40.72	-13.00	-27.72

* 3 BW 1RB size / 0 Offset for B4

- Measured output Power: 23.66 dBm = 0.232 3 W
- Modulation Signal: LTE band 4 (5 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 36.66 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 712.5 MHz)							
2 461.32	H	-44.97	4.80	9.18	-40.59	-13.00	-27.59
2 503.01	V	-40.98	4.81	9.13	-36.66	-13.00	-23.66
3 410.32	V	-32.01	5.87	9.27	-28.61	-13.00	-15.61
3 429.86	H	-32.28	5.89	9.26	-28.91	-13.00	-15.91
5 149.30	V	-50.93	7.65	10.49	-48.09	-13.00	-35.09
6 849.20	V	-40.87	8.72	11.69	-37.90	-13.00	-24.90
6 868.74	H	-44.81	8.77	11.67	-41.91	-13.00	-28.91
8 549.10	V	-44.85	9.83	12.39	-42.29	-13.00	-29.29
8 568.64	H	-49.44	9.82	12.35	-46.91	-13.00	-33.91
10 249.00	V	-45.83	10.92	13.28	-43.47	-13.00	-30.47
10 288.08	H	-42.69	10.97	13.33	-40.33	-13.00	-27.33
Middle Channel (1 732.5 MHz)							
2 424.45	V	-43.23	4.79	9.21	-38.81	-13.00	-25.81
3 449.40	H	-39.24	5.90	9.25	-35.89	-13.00	-22.89
3 468.94	V	-38.22	5.92	9.23	-34.91	-13.00	-21.91
5 207.92	V	-47.94	7.75	10.62	-45.07	-13.00	-32.07
6 907.82	V	-48.33	8.87	11.65	-45.55	-13.00	-32.55
8 646.79	H	-47.20	9.81	12.29	-44.72	-13.00	-31.72
8 646.79	V	-39.93	9.81	12.29	-37.45	-13.00	-24.45
10 385.77	H	-44.63	11.02	13.28	-42.37	-13.00	-29.37
10 385.77	V	-47.59	11.02	13.28	-45.33	-13.00	-32.33

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 752.5 ㎒)							
3 508.02	H	-47.17	5.93	9.23	-43.87	-13.00	-30.87
3 508.02	V	-45.71	5.93	9.23	-42.41	-13.00	-29.41
5 227.45	H	-52.08	7.72	10.66	-49.14	-13.00	-36.14
5 246.99	V	-49.41	7.70	10.69	-46.42	-13.00	-33.42
6 985.97	V	-47.22	8.99	11.70	-44.51	-13.00	-31.51
8 744.49	H	-43.13	9.82	12.23	-40.72	-13.00	-27.72
8 744.49	V	-40.04	9.82	12.23	-37.63	-13.00	-24.63

* 5 BW 1RB size / 0 Offset for B4

- Measured output Power: 24.36 dBm = 0.272 9 W
- Modulation Signal: LTE band 4 (10 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 37.36 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 715.0 MHz)							
2 426.05	V	-47.40	4.79	9.21	-42.98	-13.00	-29.98
3 410.32	V	-31.69	5.87	9.27	-28.29	-13.00	-15.29
3 429.86	H	-31.98	5.89	9.26	-28.61	-13.00	-15.61
6 868.74	H	-43.38	8.77	11.67	-40.48	-13.00	-27.48
6 868.74	V	-41.50	8.77	11.67	-38.60	-13.00	-25.60
8 549.10	H	-47.77	9.83	12.39	-45.21	-13.00	-32.21
8 568.64	V	-43.50	9.82	12.35	-40.97	-13.00	-27.97
10 249.00	H	-44.70	10.92	13.28	-42.34	-13.00	-29.34
10 268.54	V	-46.08	10.95	13.31	-43.72	-13.00	-30.72
Middle Channel (1 732.5 MHz)							
2 506.21	H	-43.15	4.82	9.12	-38.85	-13.00	-25.85
3 429.86	H	-36.23	5.89	9.26	-32.86	-13.00	-19.86
3 429.86	V	-36.10	5.89	9.26	-32.73	-13.00	-19.73
5 188.38	V	-49.35	7.73	10.58	-46.50	-13.00	-33.50
6 888.28	V	-47.99	8.83	11.66	-45.16	-13.00	-32.16
8 646.79	H	-47.21	9.81	12.29	-44.73	-13.00	-31.73
8 646.79	V	-41.95	9.81	12.29	-39.47	-13.00	-26.47
10 366.23	H	-44.47	11.02	13.30	-42.19	-13.00	-29.19
10 366.23	V	-45.78	11.02	13.30	-43.50	-13.00	-30.50

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 750.0 ㎒)							
3 468.94	V	-41.90	5.92	9.23	-38.59	-13.00	-25.59
3 508.02	H	-43.08	5.93	9.23	-39.78	-13.00	-26.78
5 246.99	V	-49.71	7.70	10.69	-46.72	-13.00	-33.72
6 966.43	V	-49.40	8.96	11.69	-46.67	-13.00	-33.67
8 724.95	H	-41.42	9.81	12.26	-38.97	-13.00	-25.97
8 724.95	V	-38.31	9.81	12.26	-35.86	-13.00	-22.86

* 10 BW 1RB size / 0 Offset for B4

- Measured output Power: 24.17 dBm = 0.261 2 W
- Modulation Signal: LTE band 4 (15 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 37.17 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 717.5 MHz)							
2 461.32	H	-43.53	4.80	9.18	-39.15	-13.00	-26.15
2 503.01	H	-45.10	4.81	9.13	-40.78	-13.00	-27.78
2 504.61	V	-42.53	4.82	9.13	-38.22	-13.00	-25.22
3 410.32	H	-31.94	5.87	9.27	-28.54	-13.00	-15.54
3 410.32	V	-30.79	5.87	9.27	-27.39	-13.00	-14.39
5 129.76	V	-51.34	7.61	10.44	-48.51	-13.00	-35.51
6 849.20	V	-42.45	8.72	11.69	-39.48	-13.00	-26.48
6 868.74	H	-44.98	8.77	11.67	-42.08	-13.00	-29.08
8 549.10	H	-48.07	9.83	12.39	-45.51	-13.00	-32.51
8 549.10	V	-44.75	9.83	12.39	-42.19	-13.00	-29.19
10 268.54	H	-43.09	10.95	13.31	-40.73	-13.00	-27.73
10 268.54	V	-45.47	10.95	13.31	-43.11	-13.00	-30.11
Middle Channel (1 732.5 MHz)							
3 429.86	H	-36.83	5.89	9.26	-33.46	-13.00	-20.46
3 468.94	V	-34.67	5.92	9.23	-31.36	-13.00	-18.36
5 188.38	V	-50.58	7.73	10.58	-47.73	-13.00	-34.73
6 888.28	V	-46.26	8.83	11.66	-43.43	-13.00	-30.43
8 627.25	H	-47.11	9.81	12.29	-44.63	-13.00	-31.63
8 627.25	V	-45.02	9.81	12.29	-42.54	-13.00	-29.54
10 366.23	H	-45.45	11.02	13.30	-43.17	-13.00	-30.17
10 366.23	V	-44.96	11.02	13.30	-42.68	-13.00	-29.68

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 747.5 ㎒)							
2 462.93	H	-46.19	4.80	9.17	-41.82	-13.00	-28.82
2 464.53	V	-45.50	4.80	9.17	-41.13	-13.00	-28.13
2 506.21	V	-45.48	4.82	9.12	-41.18	-13.00	-28.18
2 543.09	H	-43.22	4.87	9.04	-39.05	-13.00	-26.05
3 468.94	H	-41.88	5.92	9.23	-38.57	-13.00	-25.57
3 468.94	V	-42.28	5.92	9.23	-38.97	-13.00	-25.97
8 705.41	H	-43.48	9.80	12.29	-40.99	-13.00	-27.99
8 705.41	V	-45.70	9.80	12.29	-43.21	-13.00	-30.21

* 15 BW 1RB size / 0 Offset for B4

- Measured output Power: 24.02 dBm = 0.252 3 W
- Modulation Signal: LTE band 4 (20 MHz - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 37.02 dBc

Frequency (MHz)	Ant. Pol. (H/V)	S.G level + Amp. (dBm)	Cable loss (dB)	Ant. gain (dBi)	E.I.R.P. (dBm)	Limit (dBm)	Margin (dB)
Low Channel (1 720.0 MHz)							
3 410.32	H	-32.55	5.87	9.27	-29.15	-13.00	-16.15
3 410.32	V	-30.94	5.87	9.27	-27.54	-13.00	-14.54
6 829.66	H	-46.79	8.66	11.71	-43.74	-13.00	-30.74
6 868.74	V	-43.91	8.77	11.67	-41.01	-13.00	-28.01
8 549.10	H	-48.13	9.83	12.39	-45.57	-13.00	-32.57
8 568.64	V	-45.63	9.82	12.35	-43.10	-13.00	-30.10
10 268.54	H	-44.12	10.95	13.31	-41.76	-13.00	-28.76
10 288.08	V	-45.95	10.97	13.33	-43.59	-13.00	-30.59
Middle Channel (1 732.5 MHz)							
3 449.40	H	-37.04	5.90	9.25	-33.69	-13.00	-20.69
3 449.40	V	-34.49	5.90	9.25	-31.14	-13.00	-18.14
6 888.28	V	-47.37	8.83	11.66	-44.54	-13.00	-31.54
8 607.72	H	-48.75	9.82	12.28	-46.29	-13.00	-33.29
8 607.72	V	-43.41	9.82	12.28	-40.95	-13.00	-27.95
10 327.15	V	-44.50	11.00	13.33	-42.17	-13.00	-29.17
10 346.69	H	-45.80	11.01	13.31	-43.50	-13.00	-30.50

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (dB m)	Cable loss (dB)	Ant. gain (dB i)	E.I.R.P. (dB m)	Limit (dB m)	Margin (dB)
High Channel (1 745.0 ㎒)							
2 462.93	H	-44.82	4.80	9.17	-40.45	-13.00	-27.45
2 504.61	H	-42.38	4.82	9.13	-38.07	-13.00	-25.07
3 449.40	H	-42.68	5.90	9.25	-39.33	-13.00	-26.33
3 468.94	V	-39.75	5.92	9.23	-36.44	-13.00	-23.44
5 188.38	H	-52.34	7.73	10.58	-49.49	-13.00	-36.49
8 658.72	H	-46.94	9.81	12.29	-44.46	-13.00	-31.46
8 658.72	V	-42.77	9.81	12.29	-40.29	-13.00	-27.29
10 424.85	H	-46.98	10.99	13.28	-44.69	-13.00	-31.69

* 20 BW 1RB size / 0 Offset for B4

- Measured output Power: 21.72 ㏈m = 0.148 6 W
- Modulation Signal: LTE band 5 (1.4 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 34.72 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈d)	E.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (824.7 ㎒)							
1 648.30	H	-50.74	4.01	5.99	-48.76	-13.00	-35.76
1 732.06	V	-49.28	4.18	6.33	-47.13	-13.00	-34.13
2 444.09	H	-43.24	4.79	7.04	-40.99	-13.00	-27.99
Middle Channel (836.5 ㎒)							
1 724.45	V	-45.73	4.16	6.34	-43.55	-13.00	-30.55
1 732.06	H	-48.07	4.18	6.33	-45.92	-13.00	-32.92
2 440.28	V	-44.39	4.79	7.05	-42.13	-13.00	-29.13
2 501.20	H	-44.46	4.81	6.99	-42.28	-13.00	-29.28
High Channel (848.3 ㎒)							
2 451.70	H	-45.31	4.80	7.03	-43.08	-13.00	-30.08

* 1.4 BW 1RB size / 0 Offset for B5

- Measured output Power: 21.68 ㏈m = 0.147 2 W
- Modulation Signal: LTE band 5 (3 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 34.68 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈d)	E.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (825.5 ㎒)							
1 945.29	V	-35.78	4.41	6.08	-34.11	-13.00	-21.11
2 501.20	H	-39.67	4.81	6.99	-37.49	-13.00	-24.49
Middle Channel (836.5 ㎒)							
1 671.14	H	-50.29	4.06	6.16	-48.19	-13.00	-35.19
1 949.10	V	-36.27	4.41	6.04	-34.64	-13.00	-21.64
2 417.43	H	-46.20	4.79	7.07	-43.92	-13.00	-30.92
2 543.09	V	-43.19	4.87	6.89	-41.17	-13.00	-28.17
High Channel (847.5 ㎒)							
2 501.20	H	-40.88	4.81	6.99	-38.70	-13.00	-25.70
2 501.20	V	-43.17	4.81	6.99	-40.99	-13.00	-27.99

* 3 BW 1RB size / 0 Offset for B5

- Measured output Power: 21.82 ㏈m = 0.152 1 W
- Modulation Signal: LTE band 5 (5 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 34.82 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈d)	E.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (826.5 ㎒)							
2 417.43	V	-43.39	4.79	7.07	-41.11	-13.00	-28.11
2 428.86	H	-44.99	4.79	7.06	-42.72	-13.00	-29.72
Middle Channel (836.5 ㎒)							
1 667.33	H	-49.49	4.05	6.13	-47.41	-13.00	-34.41
1 667.33	V	-50.75	4.05	6.13	-48.67	-13.00	-35.67
1 732.06	H	-46.41	4.18	6.33	-44.26	-13.00	-31.26
1 949.10	V	-48.87	4.41	6.04	-47.24	-13.00	-34.24
2 455.51	V	-45.04	4.80	7.03	-42.81	-13.00	-29.81
High Channel (846.5 ㎒)							
1 716.83	V	-46.10	4.15	6.35	-43.90	-13.00	-30.90
1 720.64	H	-50.34	4.16	6.35	-48.15	-13.00	-35.15
2 425.05	V	-44.15	4.79	7.06	-41.88	-13.00	-28.88
2 459.32	H	-43.38	4.80	7.03	-41.15	-13.00	-28.15

* 5 BW 1RB size / 0 Offset for B5

- Measured output Power: 22.75 ㏈m = 0.188 4 W
- Modulation Signal: LTE band 5 (10 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 35.75 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈d)	E.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (829.0 ㎒)							
1 716.83	H	-42.93	4.15	6.35	-40.73	-13.00	-27.73
2 413.63	H	-44.20	4.78	7.07	-41.91	-13.00	-28.91
2 505.01	V	-42.86	4.82	6.98	-40.70	-13.00	-27.70
Middle Channel (836.5 ㎒)							
1 663.53	H	-49.11	4.04	6.10	-47.05	-13.00	-34.05
1 663.53	V	-50.73	4.04	6.10	-48.67	-13.00	-35.67
2 459.32	H	-45.83	4.80	7.03	-43.60	-13.00	-30.60
2 459.32	V	-44.89	4.80	7.03	-42.66	-13.00	-29.66
High Channel (844.0 ㎒)							
1 678.76	H	-49.06	4.07	6.22	-46.91	-13.00	-33.91
2 463.13	H	-43.30	4.80	7.02	-41.08	-13.00	-28.08
2 505.01	H	-40.36	4.82	6.98	-38.20	-13.00	-25.20

* 10 BW 1RB size / 0 Offset for B5

- Measured output Power: 20.94 ㏈m = 0.124 2 W
- Modulation Signal: LTE band 13 (5 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 33.94 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈d)	E.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Low Channel (779.5 ㎒)							
2 333.67	V	-45.18	4.75	7.08	-42.85	-13.00	-29.85
3 097.70	H	-51.10	5.32	6.29	-50.13	-13.00	-37.13
3 117.23	V	-49.86	5.32	6.31	-48.87	-13.00	-35.87
10 893.79	V	-44.99	11.09	11.43	-44.65	-13.00	-31.65
Middle Channel (782.0 ㎒)							
1 949.10	V	-37.10	4.41	6.04	-35.47	-13.00	-22.47
2 459.32	V	-44.75	4.80	7.03	-42.52	-13.00	-29.52
3 117.23	H	-54.15	5.32	6.31	-53.16	-13.00	-40.16
3 117.23	V	-48.68	5.32	6.31	-47.69	-13.00	-34.69
High Channel (784.5 ㎒)							
1 949.10	H	-40.54	4.41	6.04	-38.91	-13.00	-25.91
2 505.01	H	-44.41	4.82	6.98	-42.25	-13.00	-29.25
2 505.01	V	-41.35	4.82	6.98	-39.19	-13.00	-26.19
3 117.23	H	-51.44	5.32	6.31	-50.45	-13.00	-37.45

* 5 BW 1RB size / 0 Offset for B13

- Measured output Power: 19.72 ㏈m = 0.093 8 W
- Modulation Signal: LTE band 13 (10 ㎒ - QPSK)
- Distance: 3 meters
- Limit: 43 + 10 $\log_{10}$(W) = 32.72 ㏈c

Frequency (㎒)	Ant. Pol. (H/V)	S.G level + Amp. (㏈m)	Cable loss (㏈)	Ant. gain (㏈d)	E.R.P. (㏈m)	Limit (㏈m)	Margin (㏈)
Middle Channel (782.0 ㎒)							
1 949.10	V	-45.51	4.41	6.04	-43.88	-13.00	-30.88
2 505.01	V	-40.00	4.82	6.98	-37.84	-13.00	-24.84
2 543.09	H	-40.99	4.87	6.89	-38.97	-13.00	-25.97
2 543.09	V	-39.04	4.87	6.89	-37.02	-13.00	-24.02

* 10 BW 1RB size / 0 Offset for B13

Remark:

1. E.R.P. & E.I.R.P. = S.G level (㏈m) - Cable loss (㏈) + Ant. gain (㏈d/㏈i)
2. This device was tested under all bandwidths, RB configurations, and modulations.
3. The data reported in the table above was measured in worst case.

3. Conducted Output Power

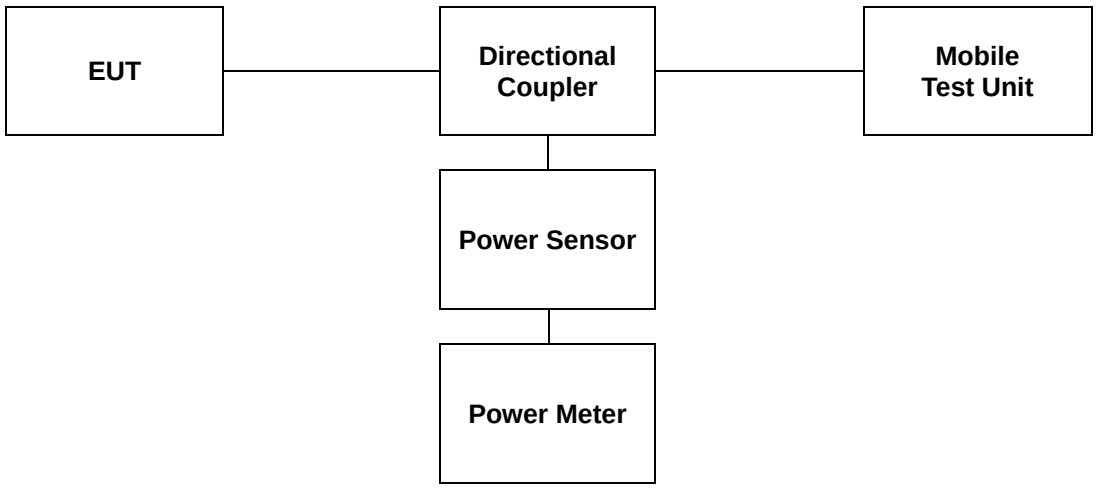
3.1. Limit

CFR 47, Section FCC §2.1046.

3.2. Test Procedure

Output power shall be measured at the RF output terminals for all configurations.

1. The RF output of the transmitter was connected to the input of the mobile test unit in order to establish communication with the EUT.
2. The EUT was set up for the max. output power with pseudo random data modulation by using mobile test unit parameters.
3. The measurement performed using a wideband RF power meter.
4. This EUT was tested under all configurations and the highest power was investigated and reported.



3.3. Test Result

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

Band	Bandwidth (㎒)	RB Size	RB Offset	QPSK			16QAM		
				18607	18900	19193	18607	18900	19193
				1 850.7	1 880.0	1 909.3	1 850.7	1 880.0	1 909.3
2	1.4	1	0	23.58	23.49	23.40	22.74	22.68	22.65
		1	3	23.52	23.67	23.43	**22.81**	22.77	22.37
		1	5	23.44	23.50	23.42	22.76	22.52	22.21
		3	0	**23.74**	23.43	23.23	22.60	22.53	22.59
		3	2	23.56	23.58	23.29	22.59	22.55	22.64
		3	3	23.49	23.60	23.26	22.52	22.55	22.65
		6	0	22.56	22.48	22.44	21.62	21.58	21.49
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**18615**	**18900**	**19185**	**18615**	**18900**	**19185**
				1 851.5	**1 880.0**	**1 908.5**	**1 851.5**	**1 880.0**	**1 908.5**
	3	1	0	23.43	**23.59**	23.33	22.71	22.47	22.70
		1	8	23.51	23.59	23.27	22.77	22.43	22.73
		1	14	23.53	23.47	23.28	**22.83**	22.36	22.57
		8	0	22.57	22.57	22.50	21.55	21.44	21.37
		8	4	22.63	22.63	22.54	21.66	21.42	21.38
		8	7	22.68	22.62	22.53	21.75	21.38	21.39
		15	0	22.69	22.59	22.41	21.65	21.63	21.37
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**18625**	**18900**	**19175**	**18625**	**18900**	**19175**
				1 852.5	**1 880.0**	**1 907.5**	**1 852.5**	**1 880.0**	**1 907.5**
	5	1	0	23.35	23.49	23.41	22.13	22.09	22.62
		1	12	**23.61**	23.48	23.45	22.35	22.37	**22.73**
		1	24	23.45	23.44	23.39	22.26	22.27	22.64
		12	0	22.62	22.49	22.43	21.56	21.42	21.35
		12	7	22.69	22.50	22.48	21.60	21.49	21.36
		12	13	22.68	22.48	22.48	21.58	21.50	21.32
		25	0	22.61	22.57	22.41	21.76	21.54	21.48
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**18650**	**18900**	**19150**	**18650**	**18900**	**19150**
				1 855.0	**1 880.0**	**1 905.0**	**1 855.0**	**1 880.0**	**1 905.0**
	10	1	0	23.39	23.44	23.49	22.73	22.15	22.96
		1	25	**23.84**	23.79	23.81	**23.12**	22.50	23.02
		1	49	23.44	23.48	23.28	22.79	22.11	22.78
		25	0	22.67	22.52	22.61	21.64	21.63	21.51
		25	12	22.71	22.49	22.62	21.70	21.68	21.61
		25	25	22.73	22.46	22.55	21.71	21.69	21.63
		50	0	22.67	22.50	22.63	21.64	21.40	21.65
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**18675**	**18900**	**19125**	**18675**	**18900**	**19125**
				1 857.5	**1 880.0**	**1 902.5**	**1 857.5**	**1 880.0**	**1 902.5**
	15	1	0	23.36	23.39	23.33	22.60	22.34	22.82
		1	37	23.20	23.36	**23.48**	22.57	22.39	**22.88**
		1	74	23.28	23.36	23.15	22.59	22.43	22.77
		36	0	22.57	22.38	22.47	21.48	21.39	21.46
		36	20	22.58	22.40	22.51	21.50	21.40	21.62
		36	39	22.56	22.41	22.52	21.47	21.35	21.71
		75	0	22.56	22.45	22.50	21.58	21.48	21.58
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**18700**	**18900**	**19100**	**18700**	**18900**	**19100**
				1 860.0	**1 880.0**	**1 900.0**	**1 860.0**	**1 880.0**	**1 900.0**
	20	1	0	23.56	23.36	23.52	23.09	23.06	22.48
		1	50	**23.93**	23.59	23.61	**23.30**	23.23	22.56
		1	99	23.34	23.45	23.41	23.01	23.09	22.22
		50	0	22.66	22.53	22.48	21.49	21.38	21.47
		50	25	22.69	22.51	22.52	21.52	21.44	21.60
		50	50	22.66	22.45	22.53	21.58	21.42	21.62
		100	0	22.68	22.54	22.49	21.76	21.52	21.59

Band	Bandwidth (㎒)	RB Size	RB Offset	QPSK			16QAM		
				19957	20175	20393	19957	20175	20393
				1 710.7	1 732.5	1 754.3	1 710.7	1 732.5	1 754.3
4	1.4	1	0	23.54	23.20	23.13	22.41	22.09	22.83
		1	3	**23.56**	23.27	23.37	22.64	22.27	**22.86**
		1	5	23.46	23.24	23.09	22.46	22.34	22.79
		3	0	23.40	23.17	23.40	22.32	22.33	22.21
		3	2	23.38	23.20	23.23	22.48	22.41	22.24
		3	3	23.32	23.23	23.16	22.52	22.48	22.20
		6	0	22.30	22.40	22.39	21.40	21.42	21.47
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**19965**	**20175**	**20385**	**19965**	**20175**	**20385**
				1 711.5	**1 732.5**	**1 753.5**	**1 711.5**	**1 732.5**	**1 753.5**
	3	1	0	23.27	23.39	23.23	22.76	22.45	**22.93**
		1	8	23.31	**23.52**	23.28	22.69	22.36	22.90
		1	14	23.16	23.38	23.31	22.67	22.16	22.91
		8	0	22.44	22.40	22.35	21.59	21.36	21.56
		8	4	22.41	22.51	22.39	21.58	21.34	21.62
		8	7	22.37	22.52	22.46	21.53	21.27	21.64
		15	0	22.43	22.50	22.44	21.46	21.53	21.41
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**19975**	**20175**	**20375**	**19975**	**20175**	**20375**
				1 712.5	**1 732.5**	**1 752.5**	**1 712.5**	**1 732.5**	**1 752.5**
	5	1	0	23.38	23.39	23.32	22.11	22.15	22.22
		1	12	23.39	**23.44**	23.40	22.12	22.23	**22.43**
		1	24	23.31	23.37	23.43	22.04	22.34	22.37
		12	0	22.50	22.44	22.55	21.43	21.27	21.35
		12	7	22.48	22.48	22.54	21.40	21.25	21.33
		12	13	22.40	22.47	22.51	21.31	21.24	21.30
		25	0	22.36	22.41	22.42	21.41	21.51	21.54
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**20000**	**20175**	**20350**	**20000**	**20175**	**20350**
				1 715.0	**1 732.5**	**1 750.0**	**1 715.0**	**1 732.5**	**1 750.0**
	10	1	0	23.40	23.39	23.49	22.62	22.38	22.78
		1	25	**23.69**	23.53	23.58	22.91	22.30	**22.97**
		1	49	23.35	23.34	23.50	22.59	22.37	22.91
		25	0	22.50	22.47	22.48	21.54	21.62	21.42
		25	12	22.52	22.45	22.54	21.56	21.68	21.53
		25	25	22.44	22.44	22.51	21.55	21.69	21.51
		50	0	22.47	22.49	22.39	21.38	21.52	21.44
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**20025**	**20175**	**20325**	**20025**	**20175**	**20325**
				1 717.5	**1 732.5**	**1 747.5**	**1 717.5**	**1 732.5**	**1 747.5**
	15	1	0	23.36	23.39	23.35	22.49	22.46	22.76
		1	37	**23.53**	23.44	23.36	22.74	22.39	22.86
		1	74	23.43	23.33	23.36	22.34	22.35	**22.90**
		36	0	22.47	22.41	22.40	21.35	21.49	21.23
		36	20	22.57	22.44	22.39	21.39	21.49	21.33
		36	39	22.56	22.40	22.34	21.48	21.41	21.32
		75	0	22.38	22.40	22.40	21.38	21.48	21.44
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**20050**	**20175**	**20300**	**20050**	**20175**	**20300**
				1 720.0	**1 732.5**	**1 745.0**	**1 720.0**	**1 732.5**	**1 745.0**
	20	1	0	23.40	23.39	23.49	23.09	22.51	23.04
		1	50	**23.74**	23.61	23.55	**23.36**	22.49	23.13
		1	99	23.41	23.40	23.63	23.12	22.42	22.63
		50	0	22.48	22.49	22.57	21.45	21.35	21.50
		50	25	22.59	22.44	22.58	21.53	21.39	21.49
		50	50	22.62	22.38	22.49	21.60	21.39	21.45
		100	0	22.55	22.51	22.44	21.57	21.53	21.59

Band	Bandwidth (㎒)	RB Size	RB Offset	QPSK			16QAM		
				20407	20525	20643	20407	20525	20643
				824.7	836.6	848.3	824.7	836.6	848.3
5	1.4	1	0	23.42	23.18	23.28	22.38	21.98	22.63
		1	3	23.42	**23.46**	23.27	22.46	22.13	**22.76**
		1	5	23.43	23.30	23.18	22.32	22.56	22.59
		3	0	23.12	23.16	23.26	22.08	22.33	22.24
		3	2	23.14	23.17	23.29	22.13	22.35	22.19
		3	3	23.15	22.24	23.28	22.18	22.34	22.17
		6	0	22.22	23.18	22.25	21.17	21.36	21.34
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**20415**	**20525**	**20635**	**20415**	**20525**	**20635**
				825.5	**836.5**	**847.5**	**825.5**	**836.5**	**847.5**
	3	1	0	23.19	23.12	23.25	22.36	21.92	**22.98**
		1	8	23.14	23.19	**23.31**	22.32	21.88	22.88
		1	14	23.16	23.11	23.23	22.45	21.93	22.97
		8	0	22.22	22.29	22.39	21.26	21.38	21.23
		8	4	22.21	22.28	22.32	21.27	21.43	21.25
		8	7	22.21	22.26	22.28	21.23	21.48	21.24
		15	0	22.13	22.27	22.35	21.15	21.48	21.36
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**20425**	**20525**	**20625**	**20425**	**20525**	**20625**
				826.5	**836.5**	**846.5**	**826.5**	**836.5**	**846.5**
	5	1	0	23.13	23.15	23.21	21.47	21.71	22.66
		1	12	23.15	**23.34**	23.23	21.88	22.08	**22.72**
		1	24	22.89	23.20	23.10	21.69	21.88	22.35
		12	0	22.21	22.22	22.46	21.08	21.16	21.17
		12	7	22.33	22.29	22.38	21.14	21.17	21.18
		12	13	22.32	22.30	22.35	21.27	21.02	21.17
		25	0	22.19	22.33	22.36	21.37	21.23	21.40
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**20450**	**20525**	**20600**	**20450**	**20525**	**20600**
				829.0	**836.5**	**844.0**	**829.0**	**836.5**	**844.0**
	10	1	0	23.23	23.16	23.26	22.15	21.68	22.66
		1	25	23.22	23.56	**23.75**	**22.73**	22.14	22.70
		1	49	23.14	23.04	23.23	22.36	21.84	22.69
		25	0	22.21	22.27	22.40	21.12	21.23	21.48
		25	12	22.24	22.29	22.45	21.24	21.27	21.39
		25	25	22.23	22.27	22.50	21.33	21.30	21.27
		50	0	22.18	22.33	22.44	21.17	21.30	21.40

Band	Bandwidth (㎒)	RB Size	RB Offset	QPSK			16QAM		
				23205	23230	23255	23205	23230	23255
				779.5	782.0	784.5	779.5	782.0	784.5
13	5	1	0	23.27	23.21	23.15	22.65	21.95	21.88
		1	25	**23.39**	23.30	23.25	**22.74**	21.86	21.94
		1	49	23.30	23.22	23.17	22.71	21.93	21.90
		25	0	22.26	22.05	22.16	21.24	21.10	21.09
		25	12	22.19	22.14	22.17	21.18	21.12	21.19
		25	25	22.14	22.18	22.13	21.16	21.11	21.20
		50	0	22.18	22.15	22.17	21.22	21.20	21.31
	Bandwidth (㎒)	**RB Size**	**RB Offset**	**-**	**23230**	**-**	**-**	**23230**	**-**
				-	**782.0**	**-**	**-**	**782.0**	**-**
	10	1	0	-	23.11	-	-	22.12	-
		1	25	-	**23.49**	-	-	**22.36**	-
		1	49	-	23.01	-	-	22.25	-
		25	0	-	22.17	-	-	21.24	-
		25	12	-	22.18	-	-	21.25	-
		25	25	-	22.16	-	-	21.28	-
		50	0	-	22.20	-	-	21.11	-

4. Occupied Bandwidth 99 %

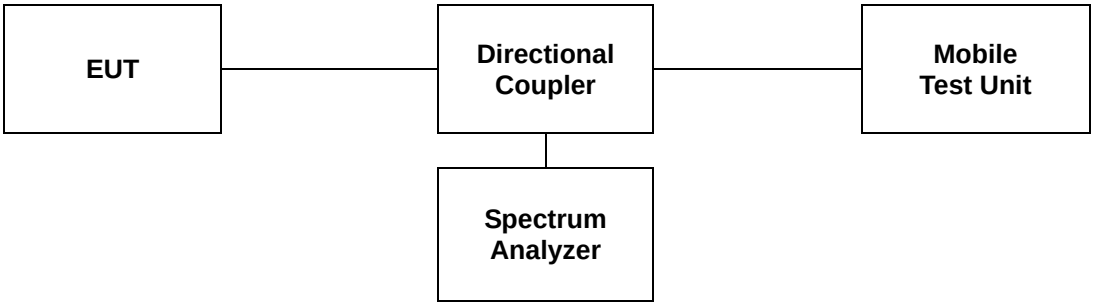
4.1. Limit

CFR 47, Section FCC §2.1049.

4.2. Test Procedure

The test follows section 4.3 of KDB Publication 971168 D01 v03r01.

a. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation. products including the emission skirts (typically a span of 1.5 × OBW is sufficient).
b. The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1 % to 5 % of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c. Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation. See guidance provided in 4.2.3.
d. Set the detection mode to peak, and the trace mode to max-hold.
e. If the instrument does not have a 99 % OBW function, recover the trace data points and sum directly in linear power terms. Place the recovered amplitude data points, beginning at the lowest frequency, in a running sum until 0.5 % of the total is reached. Record that frequency as the lower OBW frequency. Repeat the process until 99.5 % of the total is reached and record that frequency as the upper OBW frequency. The 99 % power OBW can be determined by computing the difference these two frequencies.
f. The OBW shall be reported and plot(s) of the measuring instrument display shall be provided with the test report. The frequency and amplitude axis and scale shall be clearly labeled. Tabular data can be reported in addition to the plot(s).



4.3 Test Results

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

Band	Mode	Frequency (㎒)	Occupied Bandwidth (㎒)
2 (1.4 ㎒)	QPSK	1 850.7	1.103
		1 880.0	1.107
		1 909.3	1.103
2 (1.4 ㎒)	16QAM	1 850.7	1.107
		1 880.0	1.098
		1 909.3	1.098
2 (3 ㎒)	QPSK	1 851.5	2.700
		1 880.0	2.683
		1 908.5	2.692
2 (3 ㎒)	16QAM	1 851.5	2.683
		1 880.0	2.683
		1 908.5	2.692
2 (5 ㎒)	QPSK	1 852.5	4.530
		1 880.0	4.501
		1 907.5	4.515
2 (5 ㎒)	16QAM	1 852.5	4.515
		1 880.0	4.530
		1 907.5	4.530
2 (10 ㎒)	QPSK	1 855.0	8.944
		1 880.0	8.944
		1 905.0	8.944
2 (10 ㎒)	16QAM	1 855.0	8.944
		1 880.0	8.944
		1 905.0	8.944
2 (15 ㎒)	QPSK	1 857.5	13.502
		1 880.0	13.459
		1 902.5	13.415
2 (15 ㎒)	16QAM	1 857.5	13.502
		1 880.0	13.502
		1 902.5	13.502
2 (20 ㎒)	QPSK	1 860.0	17.829
		1 880.0	17.945
		1 900.0	17.887
2 (20 ㎒)	16QAM	1 860.0	17.887
		1 880.0	17.945
		1 900.0	17.945

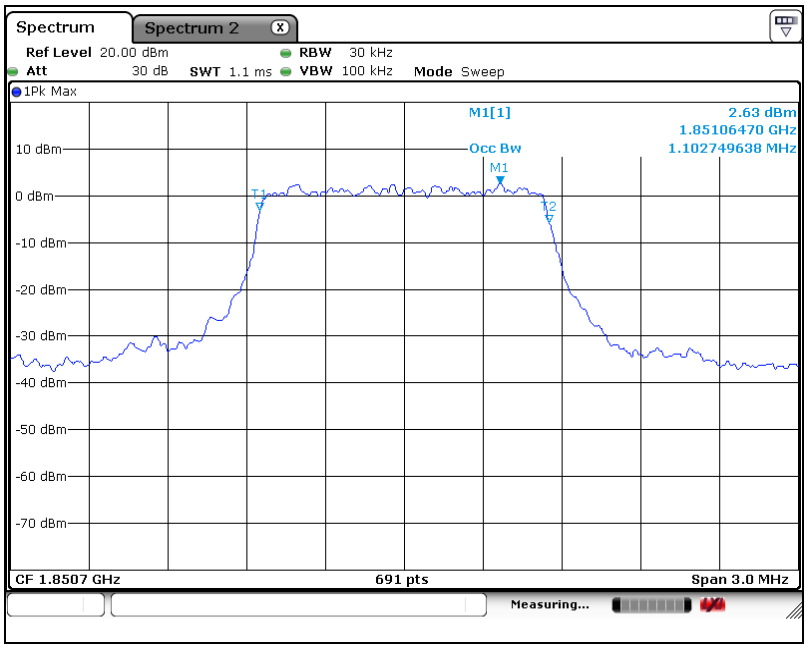
Band	Mode	Frequency (㎒)	Occupied Bandwidth (㎒)
4 (1.4 ㎒)	QPSK	1 710.7	1.103
		1 732.5	1.107
		1 754.3	1.107
4 (1.4 ㎒)	16QAM	1 710.7	1.107
		1 732.5	1.098
		1 754.3	1.103
4 (3 ㎒)	QPSK	1 711.5	2.700
		1 732.5	2.692
		1 753.5	2.692
4 (3 ㎒)	16QAM	1 711.5	2.683
		1 732.5	2.683
		1 753.5	2.692
4 (5 ㎒)	QPSK	1 712.5	4.530
		1 732.5	4.501
		1 752.5	4.515
4 (5 ㎒)	16QAM	1 712.5	4.515
		1 732.5	4.515
		1 752.5	4.530
4 (10 ㎒)	QPSK	1 715.0	8.973
		1 732.5	8.944
		1 750.0	8.944
4 (10 ㎒)	16QAM	1 715.0	8.944
		1 732.5	8.973
		1 750.0	8.944
4 (15 ㎒)	QPSK	1 717.5	13.502
		1 732.5	13.459
		1 747.5	13.415
4 (15 ㎒)	16QAM	1 717.5	13.502
		1 732.5	13.459
		1 747.5	13.502
4 (20 ㎒)	QPSK	1 720.0	17.887
		1 732.5	17.945
		1 745.0	17.887
4 (20 ㎒)	16QAM	1 720.0	17.945
		1 732.5	17.887
		1 745.0	17.887

Band	Mode	Frequency (㎒)	Occupied Bandwidth (㎒)
5 (1.4 ㎒)	QPSK	824.7	1.103
		836.5	1.103
		848.3	1.103
5 (1.4 ㎒)	16QAM	824.7	1.103
		836.5	1.098
		848.3	1.098
5 (3 ㎒)	QPSK	825.5	2.683
		836.5	2.692
		847.5	2.692
5 (3 ㎒)	16QAM	825.5	2.683
		836.5	2.683
		847.5	2.683
5 (5 ㎒)	QPSK	826.5	4.530
		836.5	4.501
		846.5	4.515
5 (5 ㎒)	16QAM	826.5	4.501
		836.5	4.530
		846.5	4.530
5 (10 ㎒)	QPSK	829.0	8.944
		836.5	8.944
		844.0	8.944
5 (10 ㎒)	16QAM	829.0	8.944
		836.5	8.944
		844.0	8.915

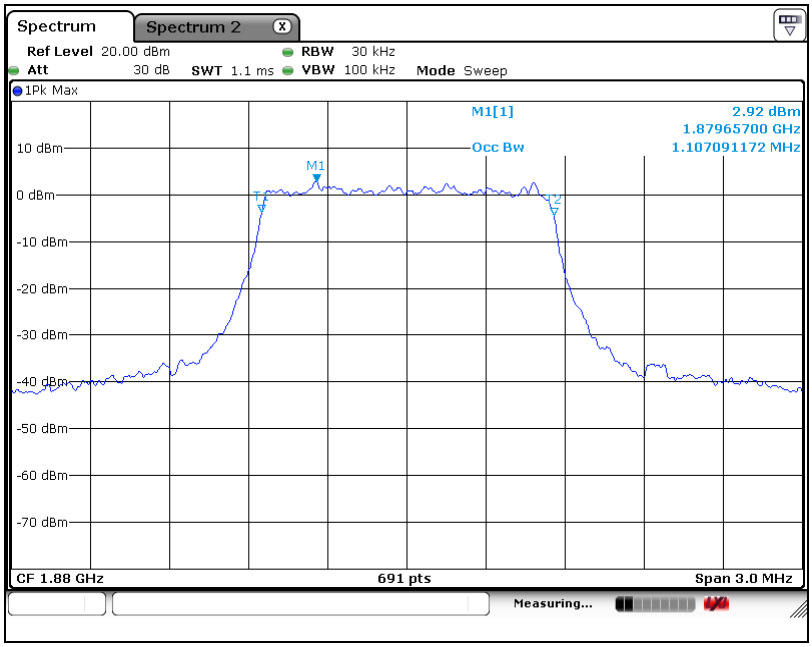
Band	Mode	Frequency (㎒)	Occupied Bandwidth (㎒)
13 (5 ㎒)	QPSK	779.5	4.515
		782.0	4.496
		784.5	4.496
13 (5 ㎒)	16QAM	779.5	4.496
		782.0	4.525
		784.5	4.515
13 (10 ㎒)	QPSK	-	-
		782.0	8.911
		-	-
13 (10 ㎒)	16QAM	-	-
		782.0	8.911
		-	-

LTE band 2 (1.4 ㎒ - QPSK)

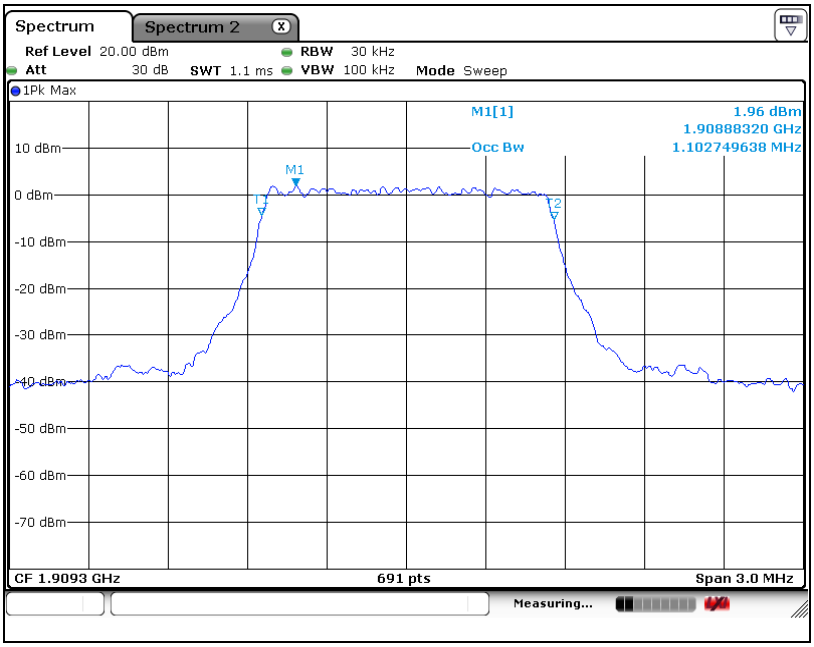
Low Channel



Middle Channel

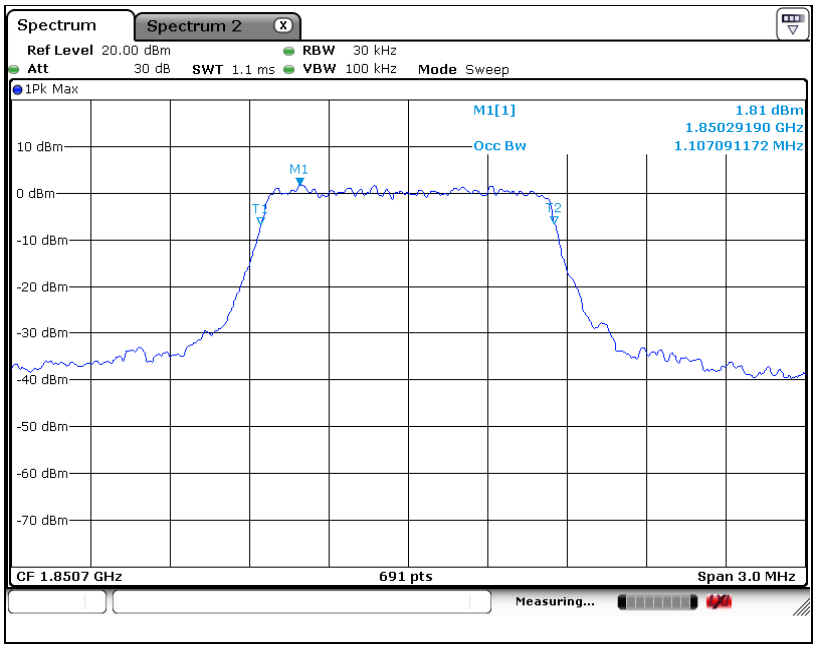


High Channel

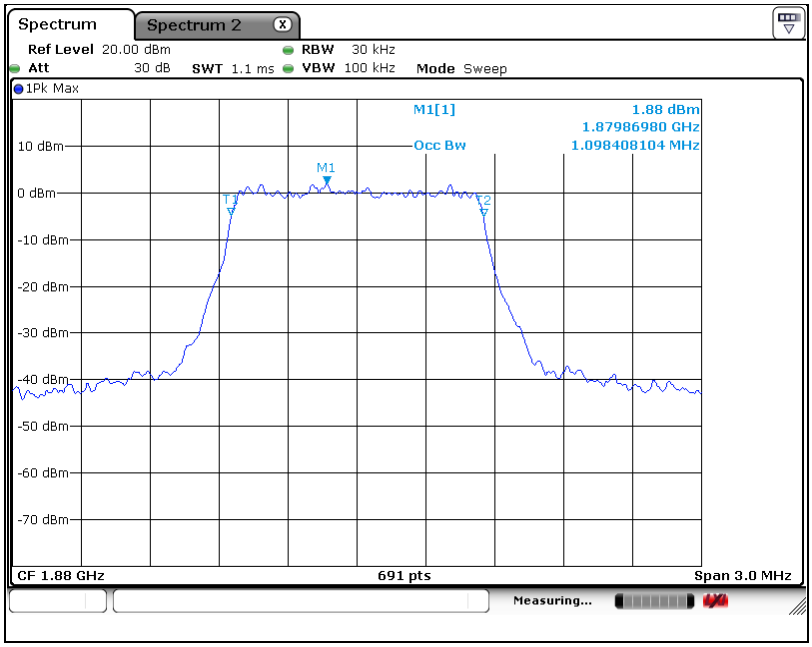


LTE band 2 (1.4 ㎒ - 16QAM)

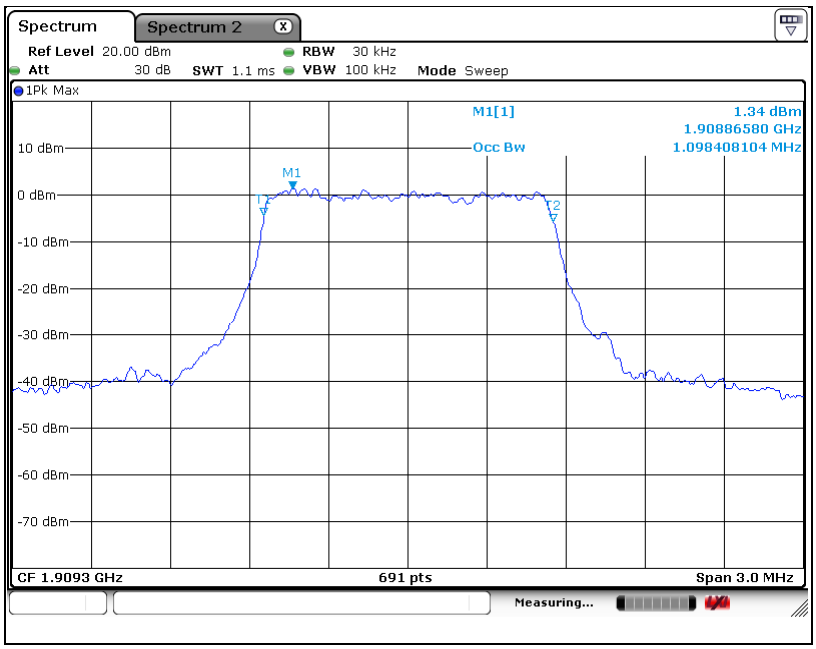
Low Channel



Middle Channel

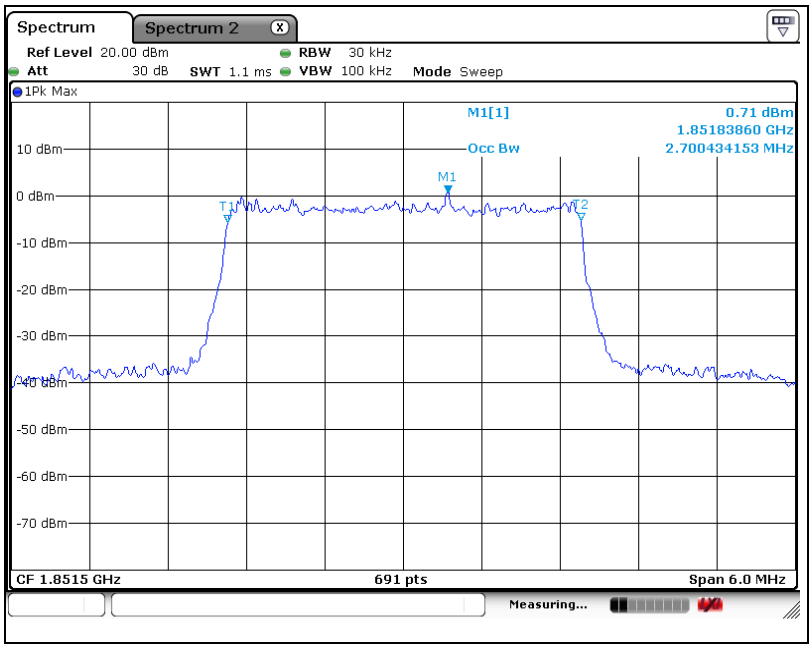


High Channel

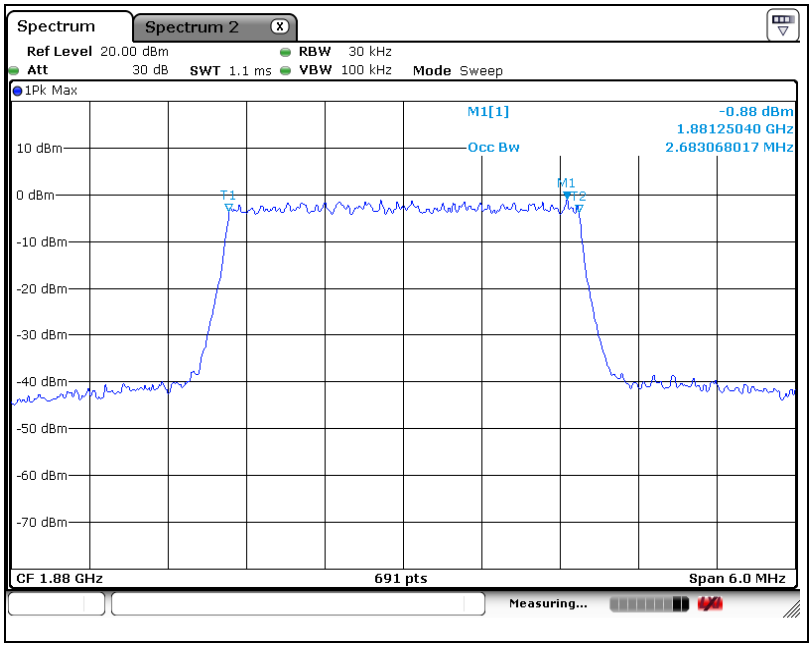


LTE band 2 (3 ㎒ - QPSK)

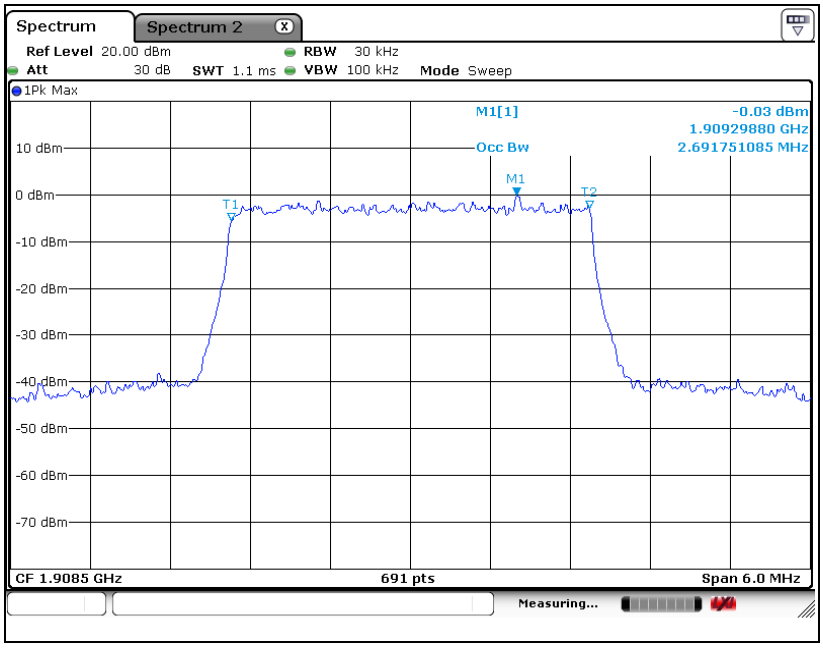
Low Channel



Middle Channel

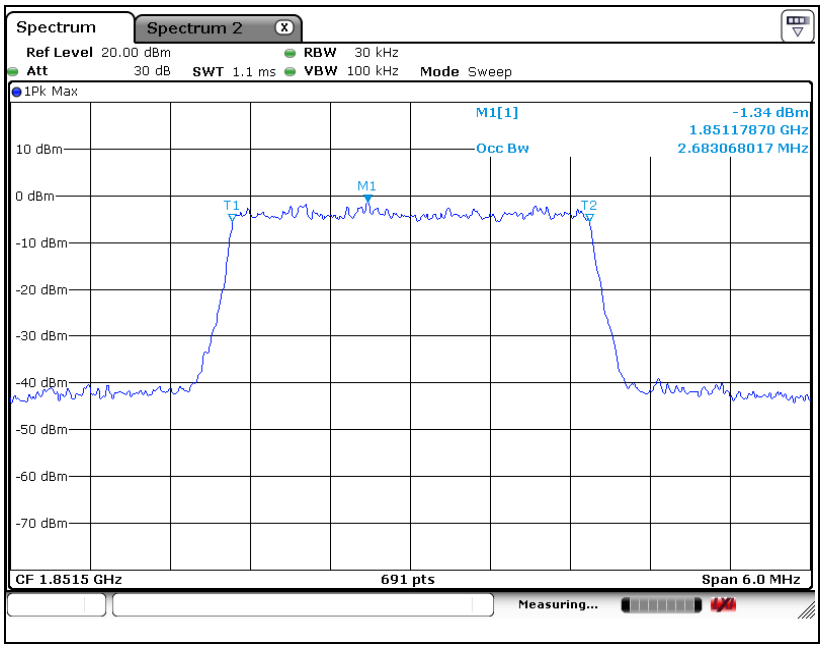


High Channel

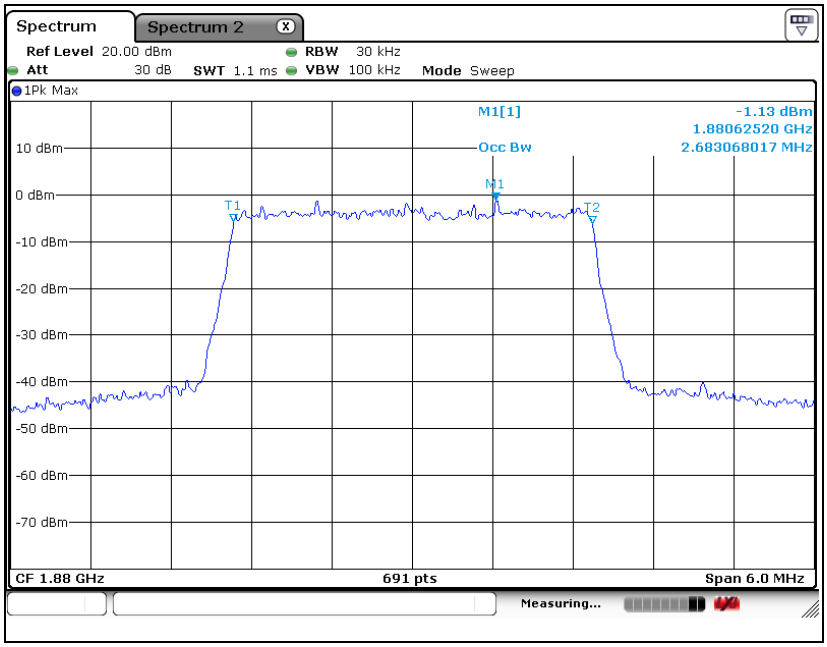


LTE band 2 (3 ㎒ - 16QAM)

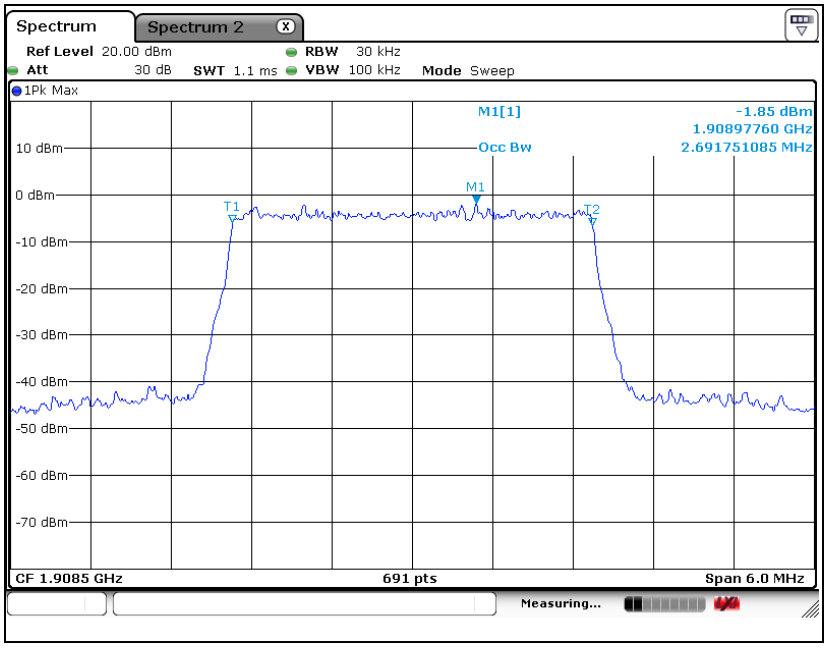
Low Channel



Middle Channel

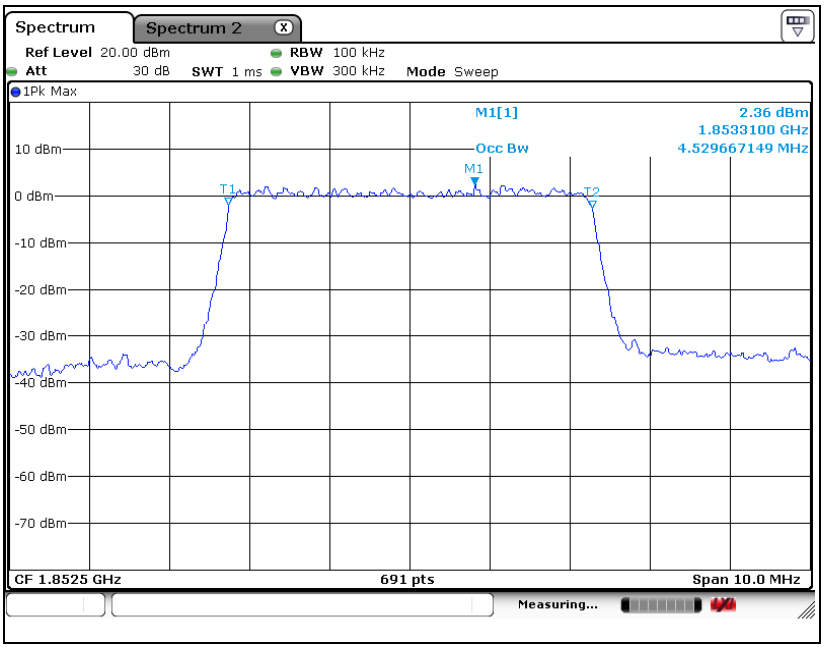


High Channel

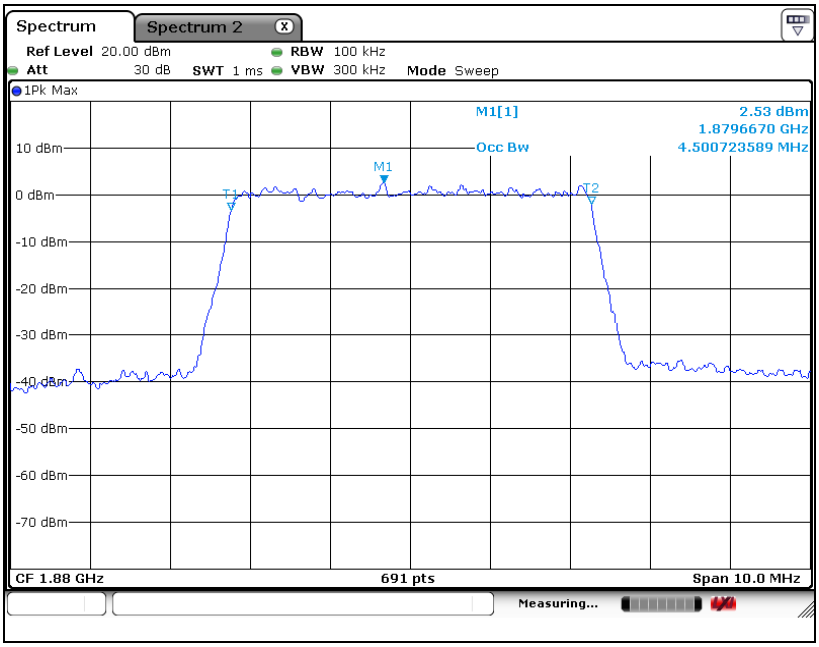


LTE band 2 (5 ㎒ - QPSK)

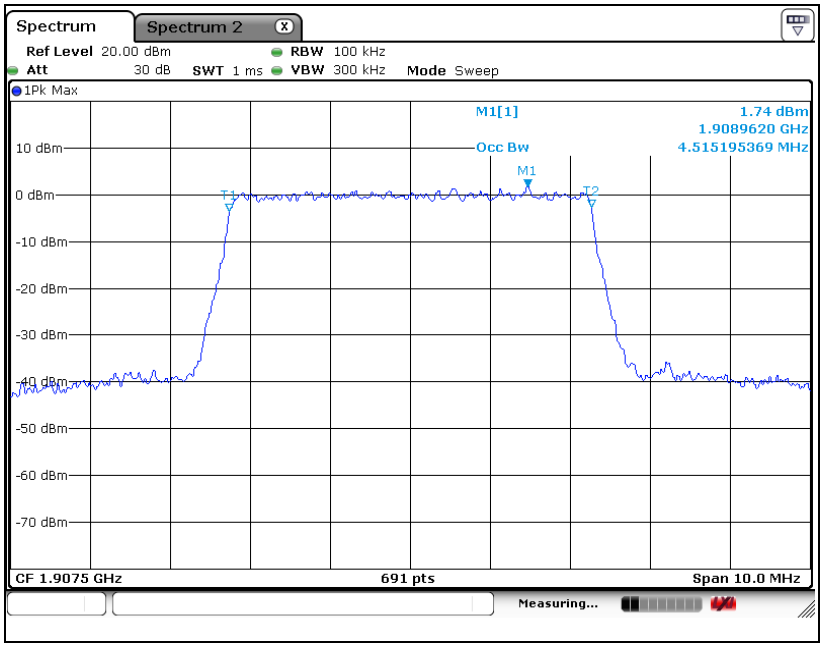
Low Channel



Middle Channel

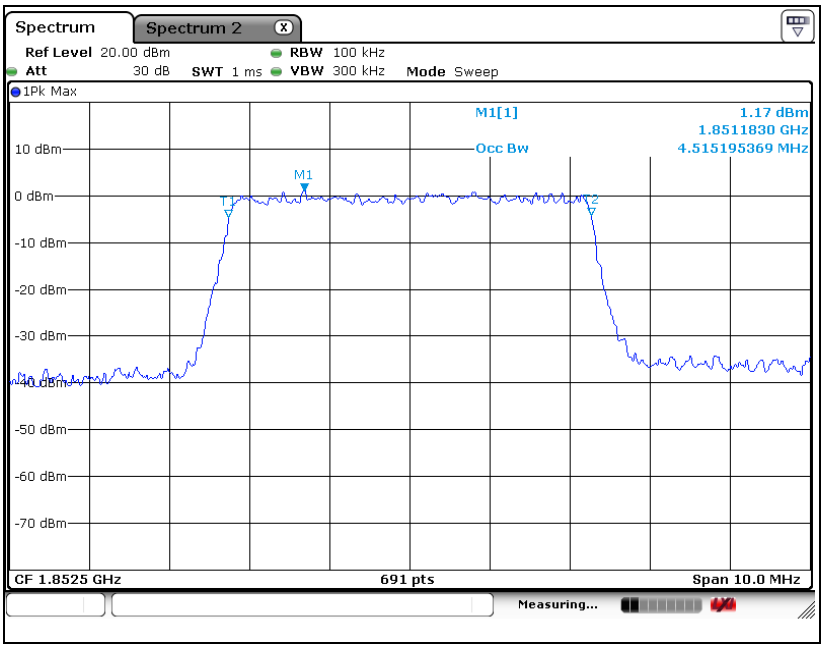


High Channel

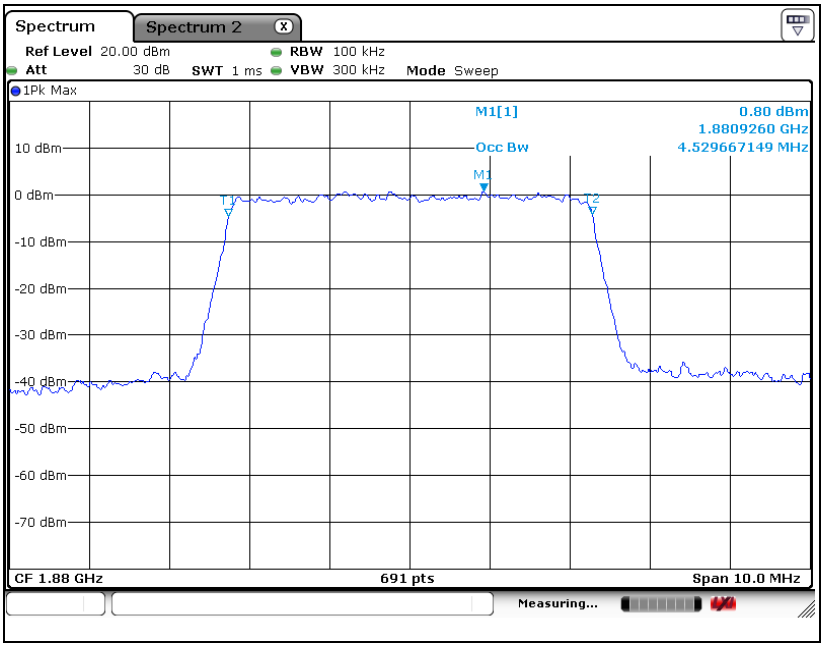


LTE band 2 (5 ㎒ - 16QAM)

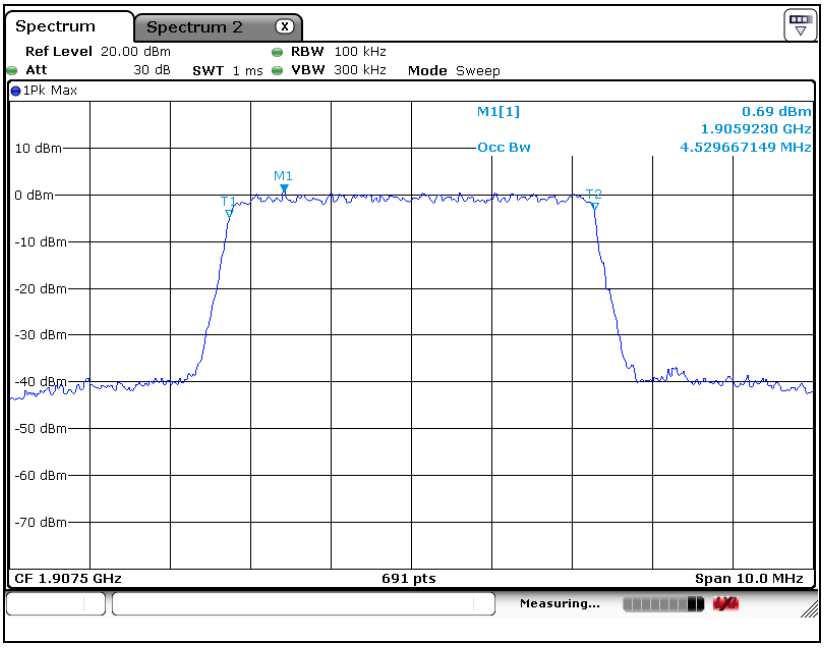
Low Channel



Middle Channel

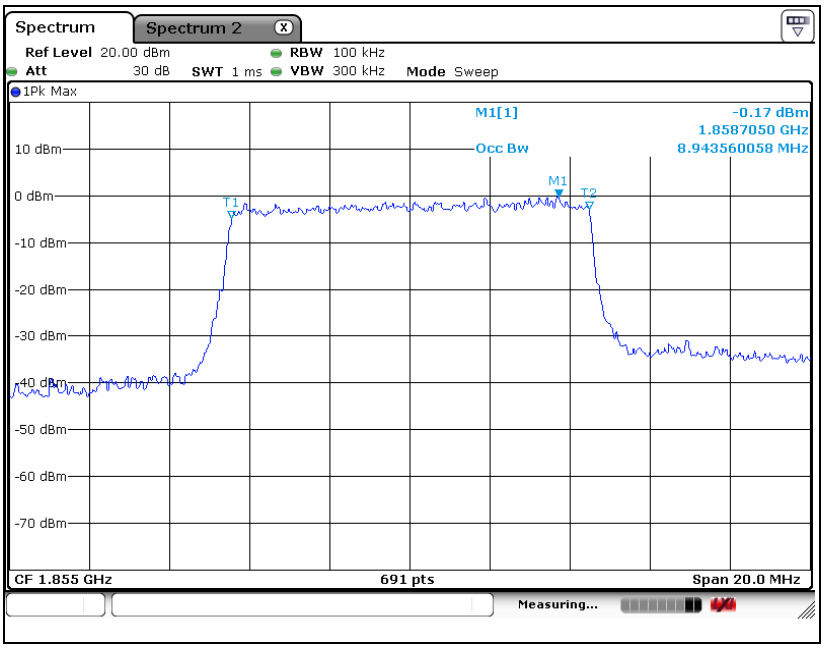


High Channel

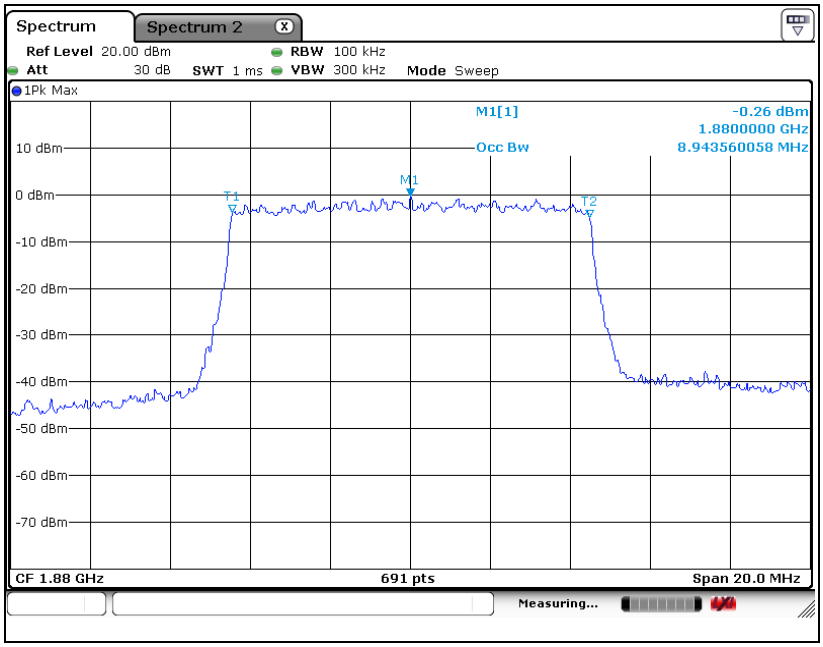


LTE band 2 (10 ㎒ - QPSK)

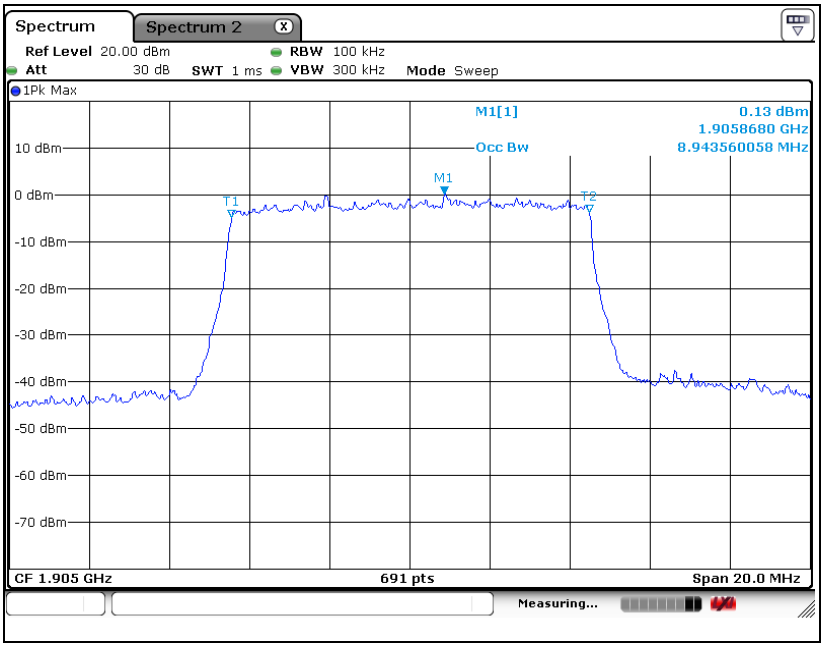
Low Channel



Middle Channel

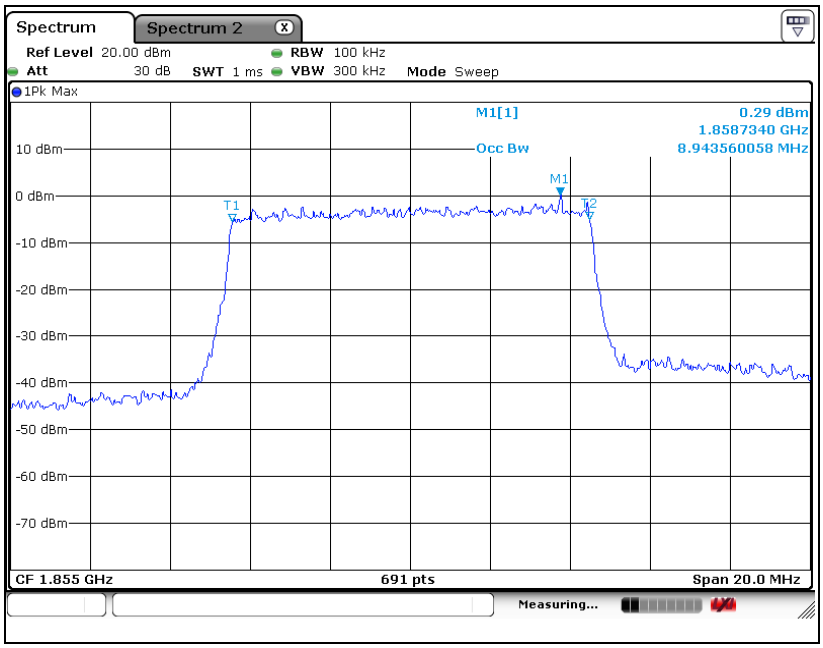


High Channel

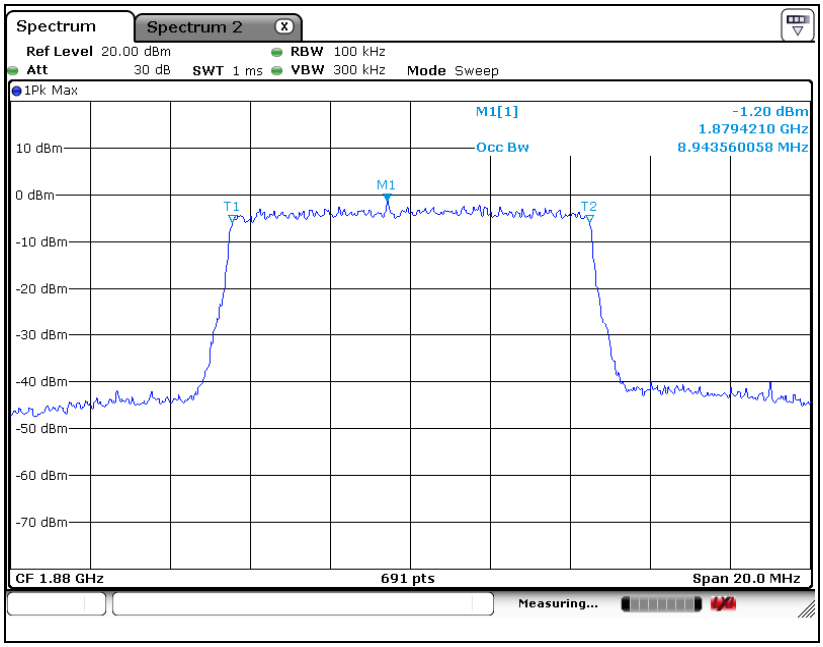


LTE band 2 (10 ㎒ - 16QAM)

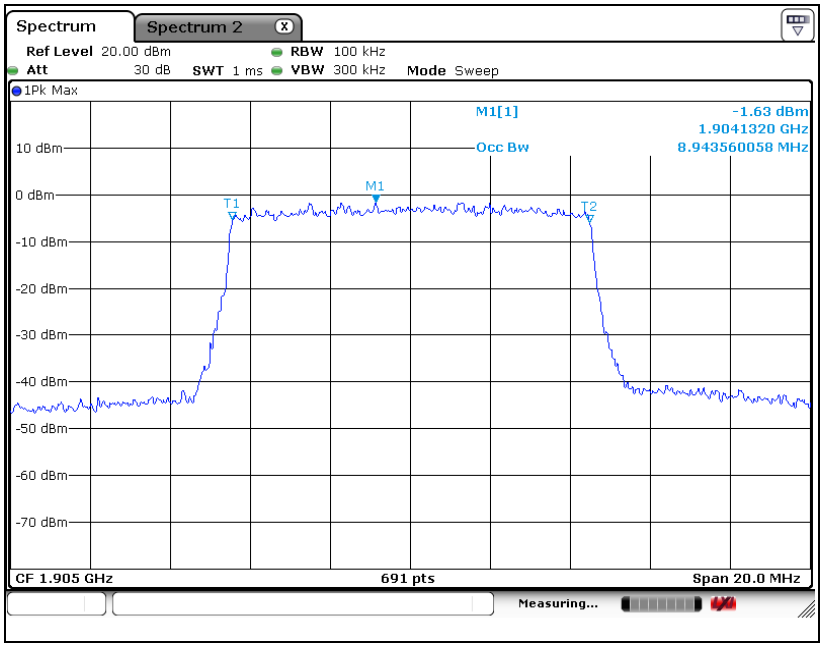
Low Channel



Middle Channel

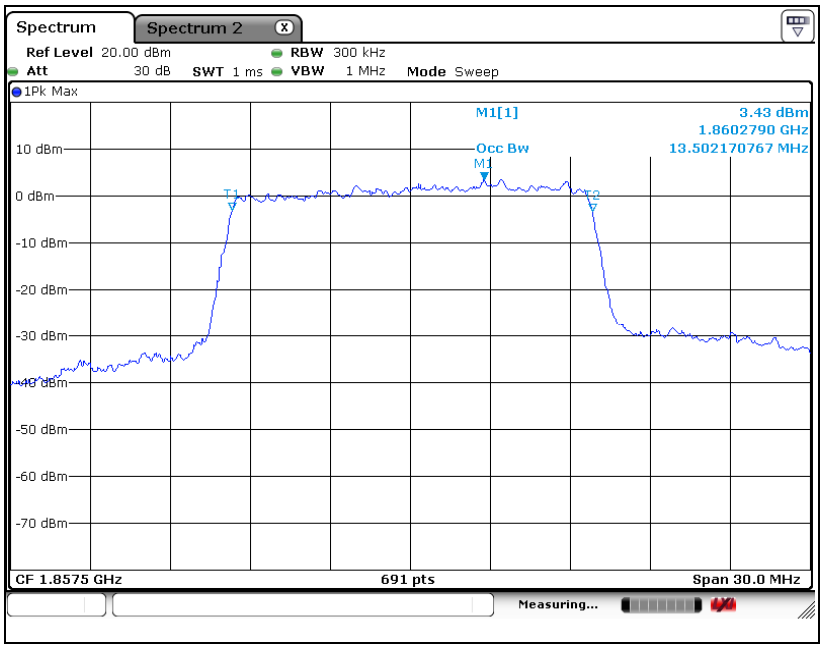


High Channel

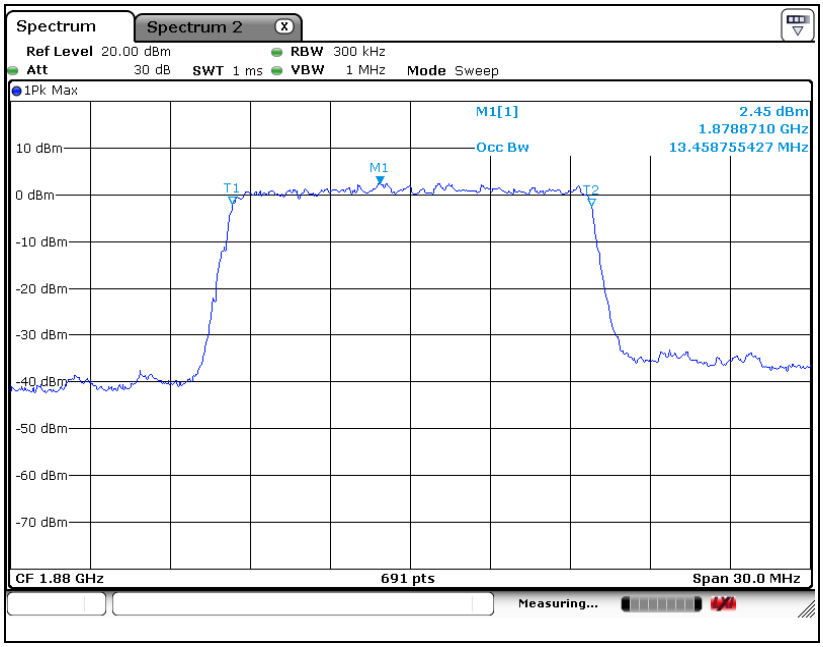


LTE band 2 (15 ㎒ - QPSK)

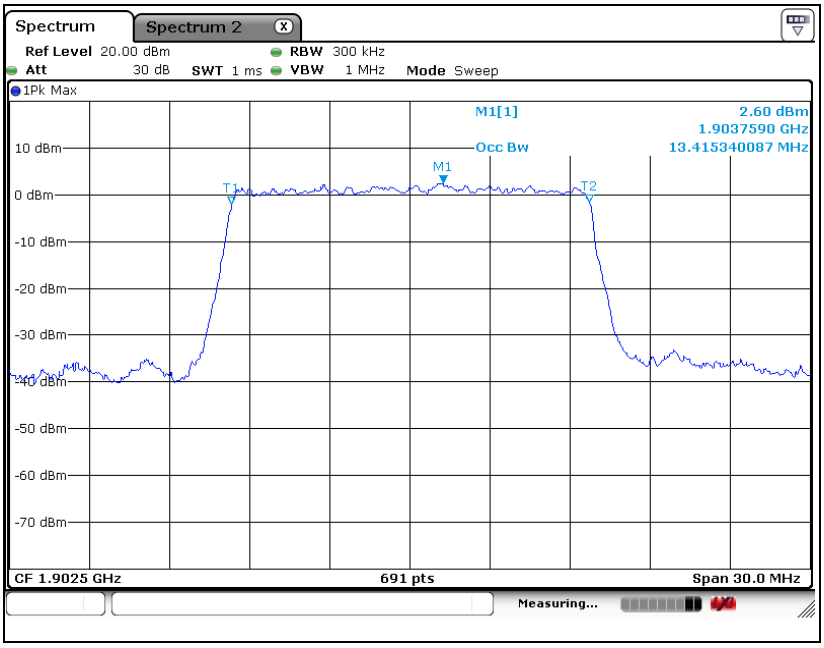
Low Channel



Middle Channel

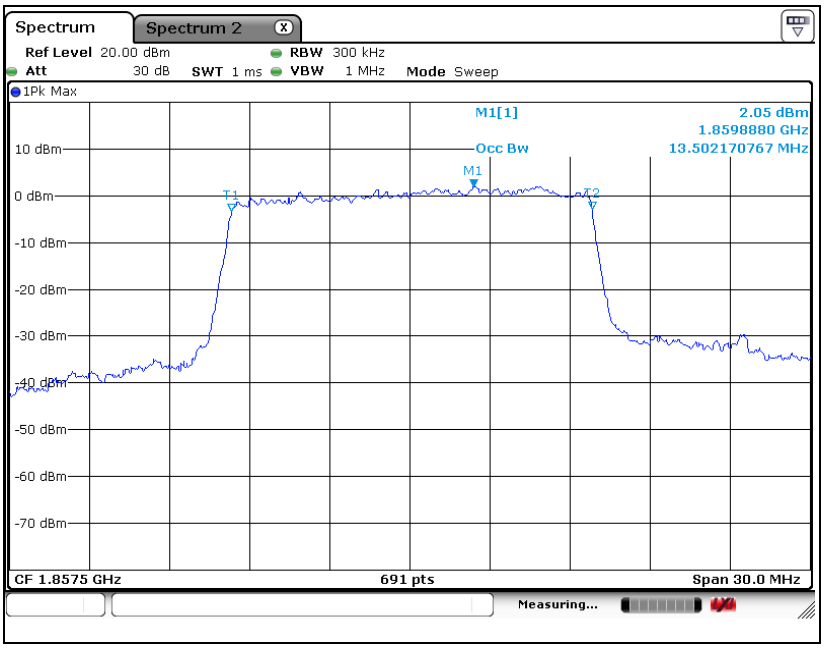


High Channel

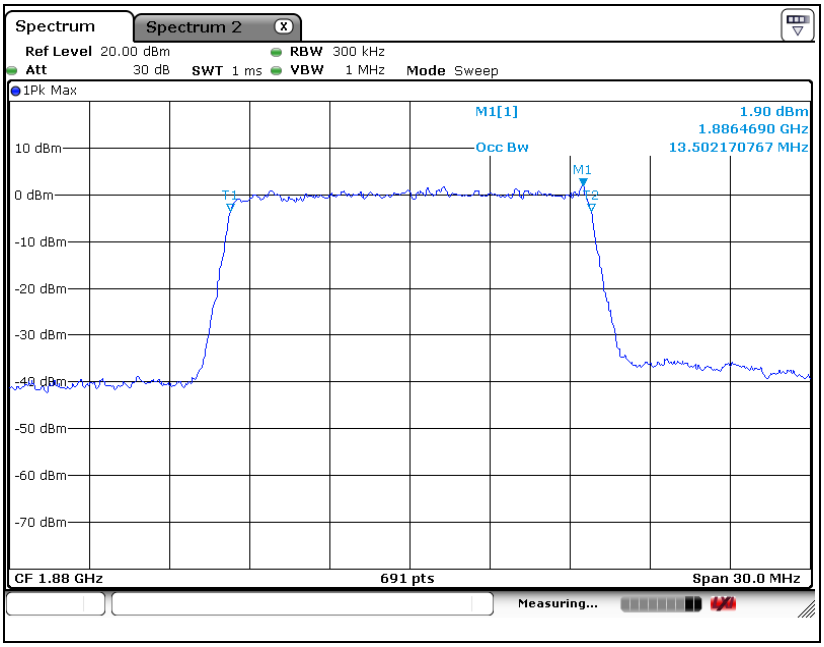


LTE band 2 (15 ㎒ - 16QAM)

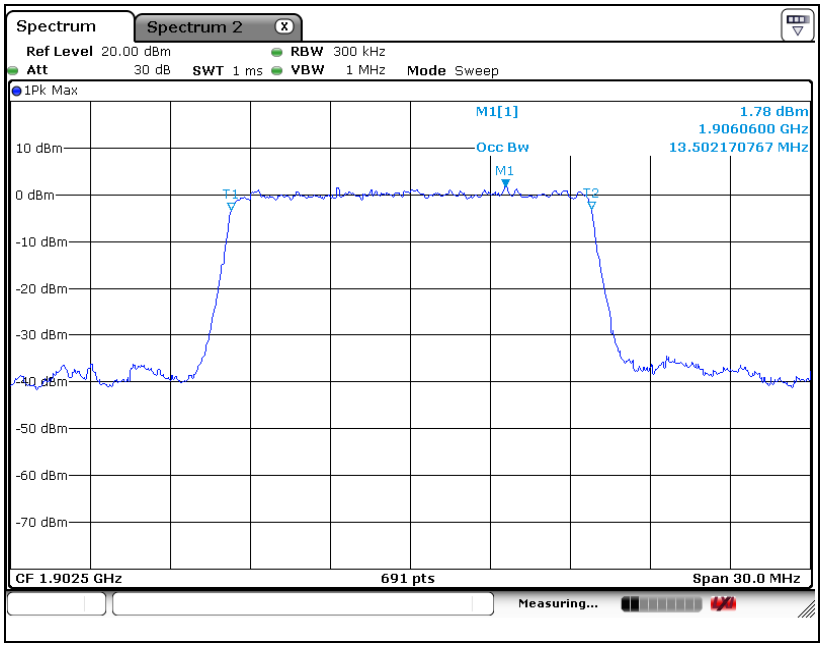
Low Channel



Middle Channel

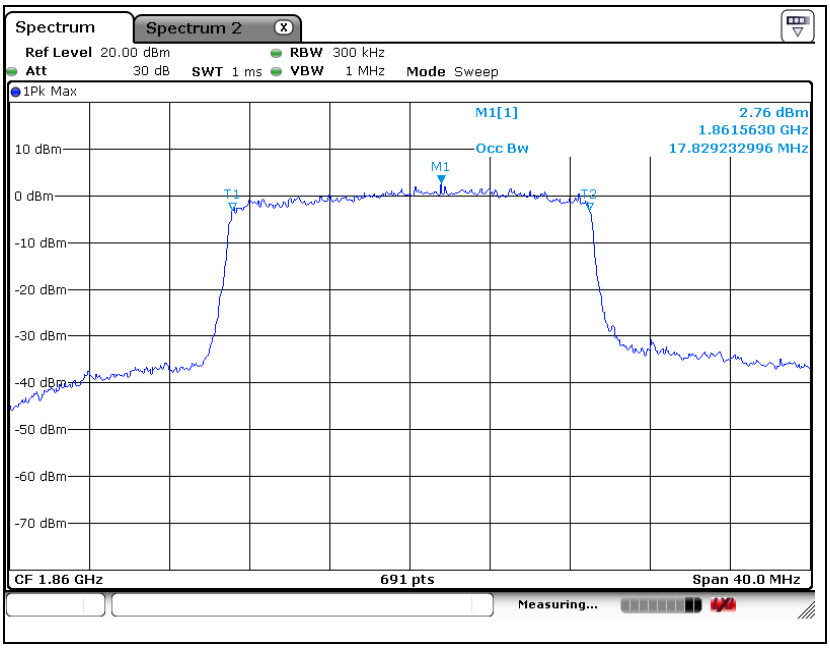


High Channel

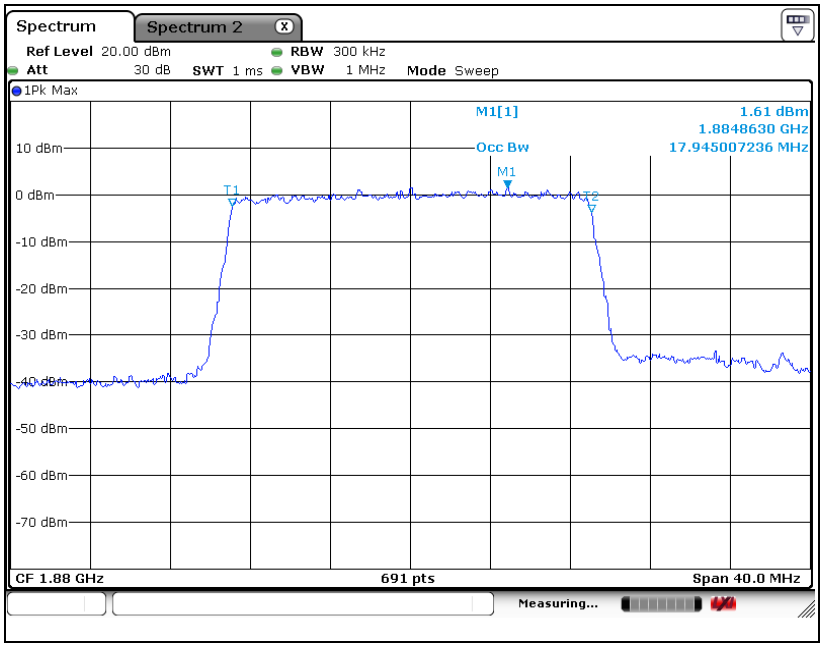


LTE band 2 (20 ㎒ - QPSK)

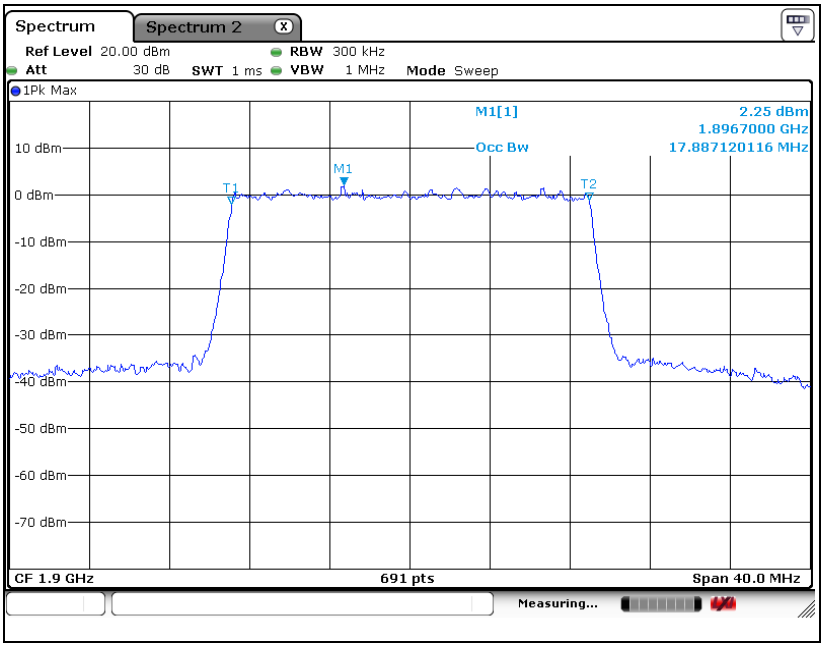
Low Channel



Middle Channel

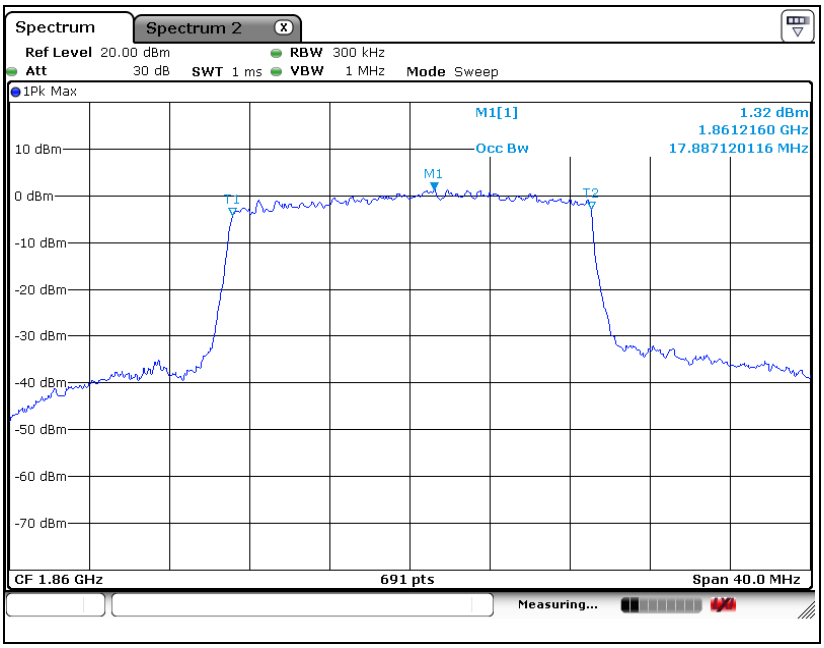


High Channel

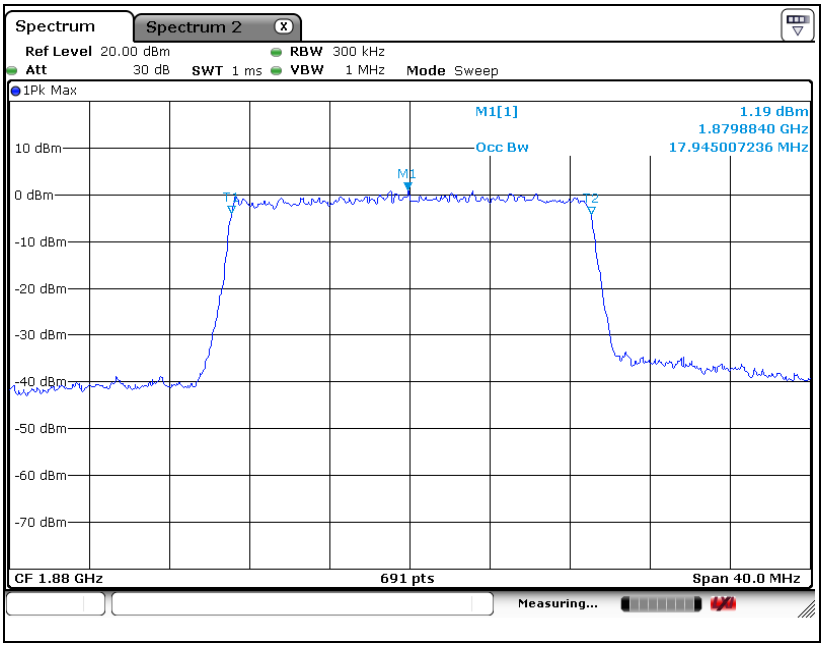


LTE band 2 (20 ㎒ - 16QAM)

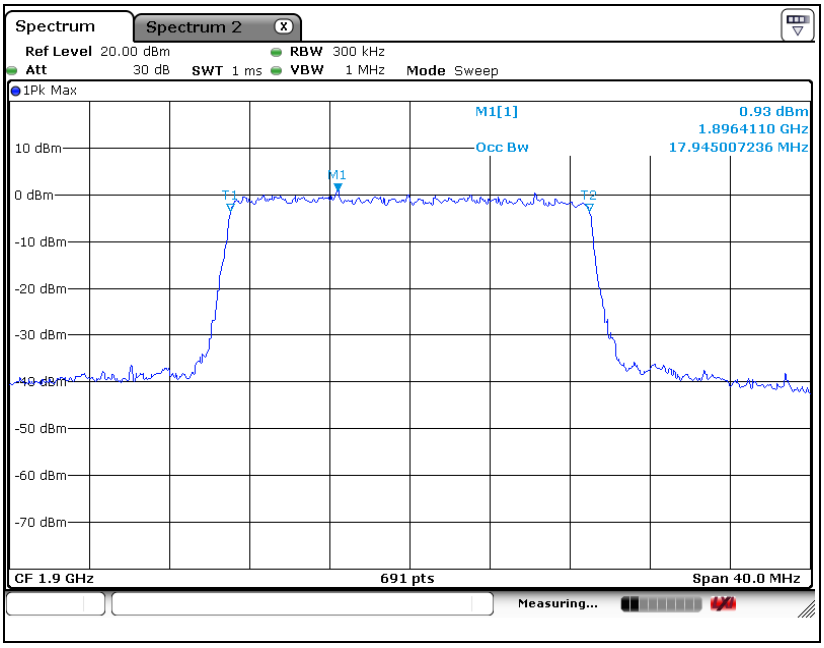
Low Channel



Middle Channel

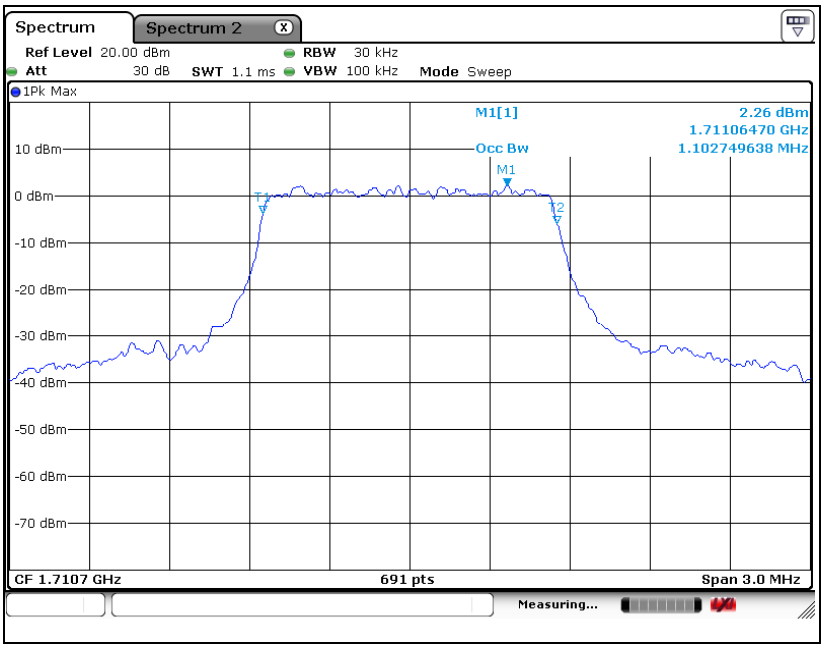


High Channel

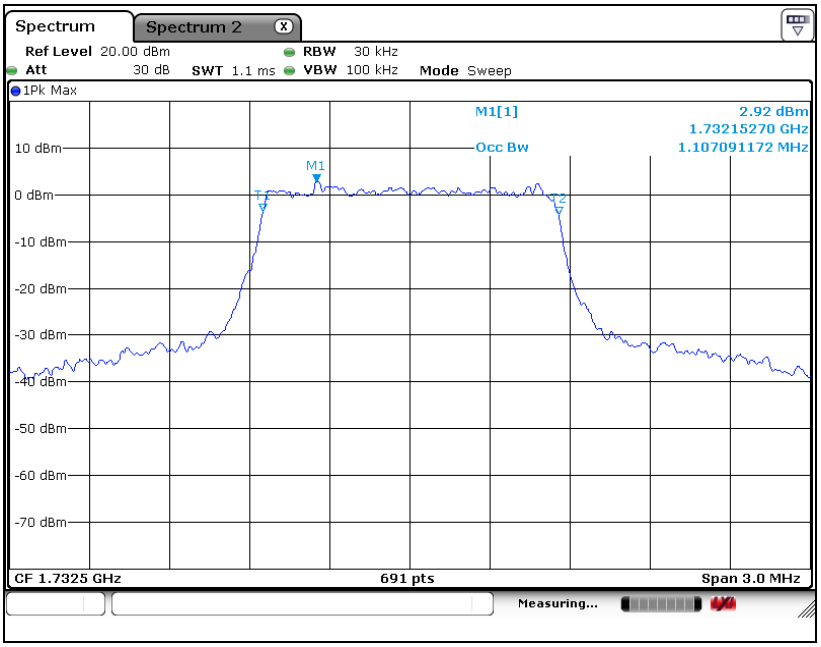


LTE band 4 (1.4 ㎒ - QPSK)

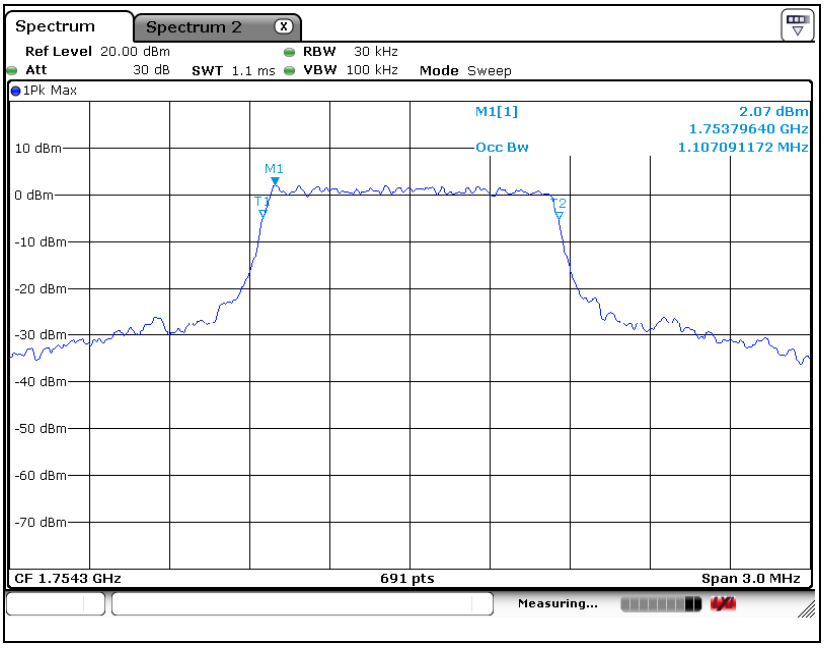
Low Channel



Middle Channel

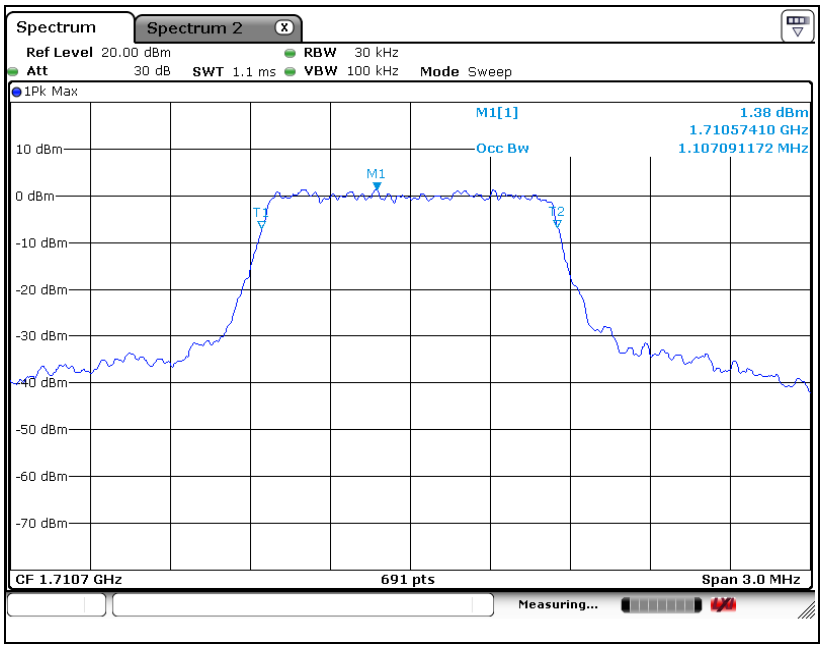


High Channel

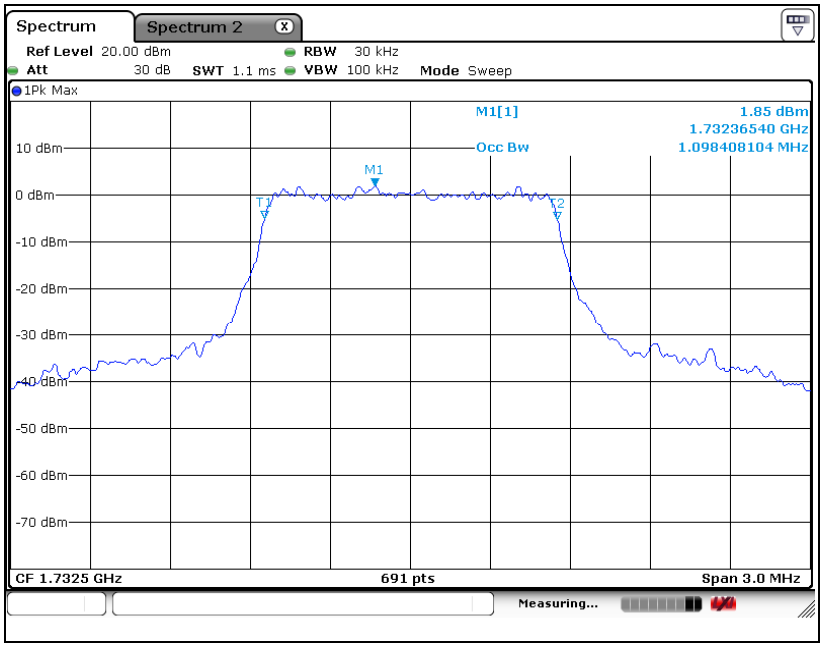


LTE band 4 (1.4 ㎒ - 16QAM)

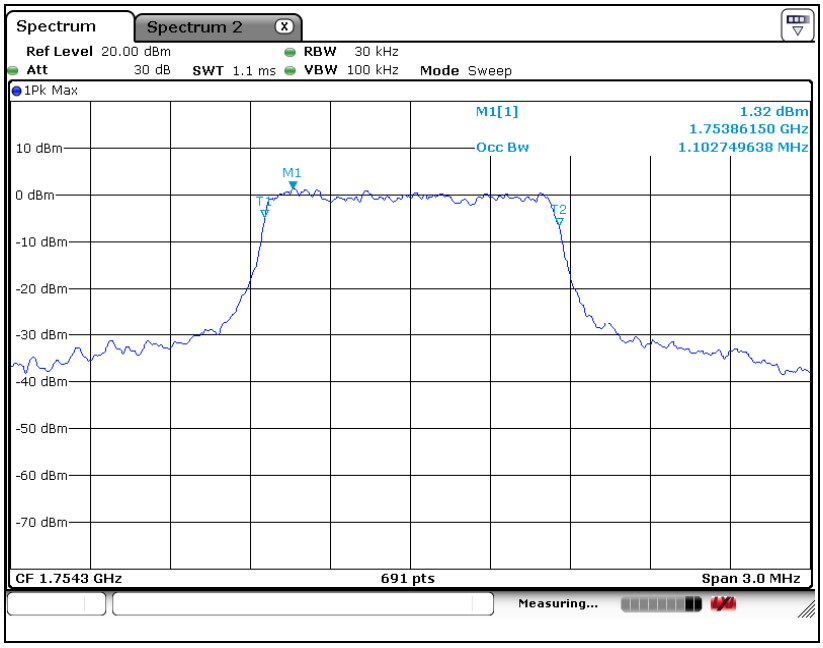
Low Channel



Middle Channel

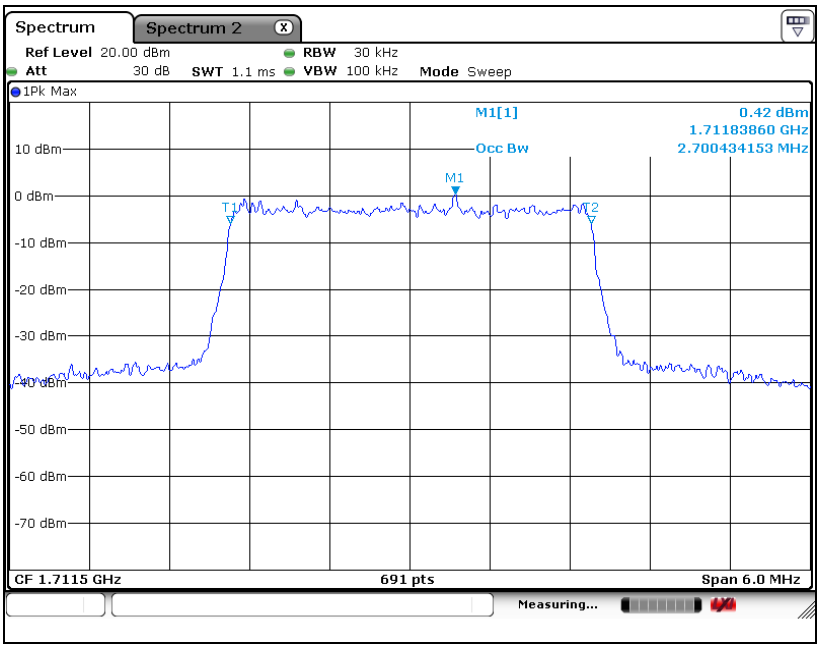


High Channel

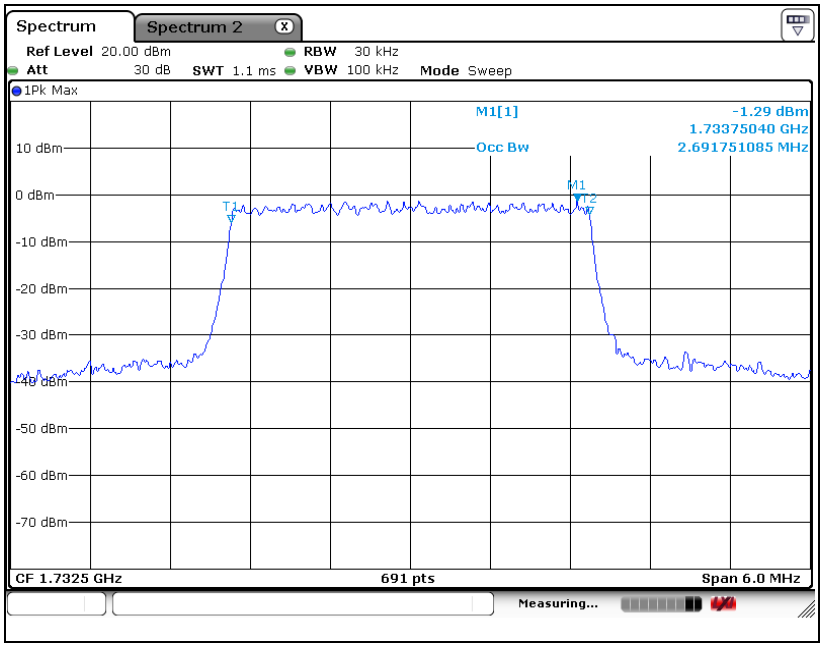


LTE band 4 (3 ㎒ - QPSK)

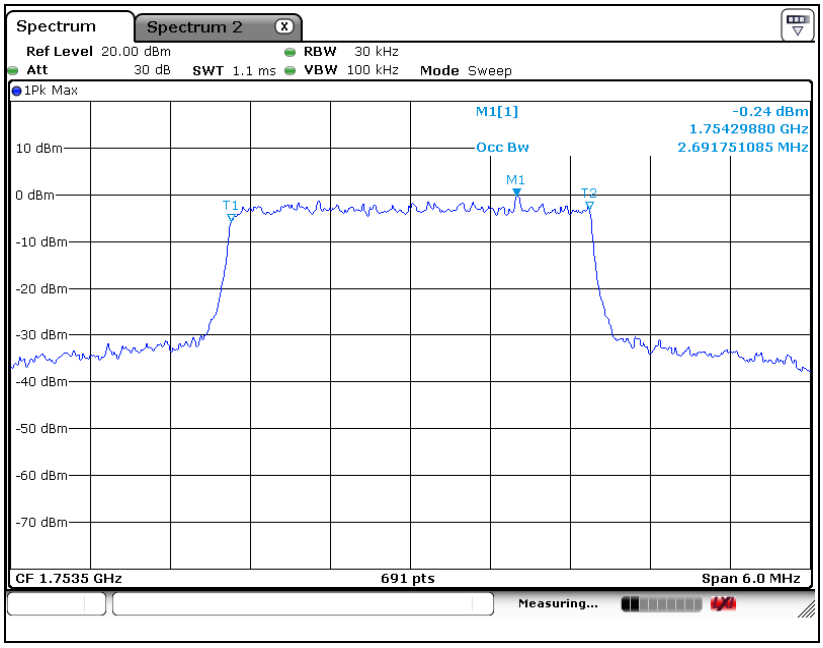
Low Channel



Middle Channel

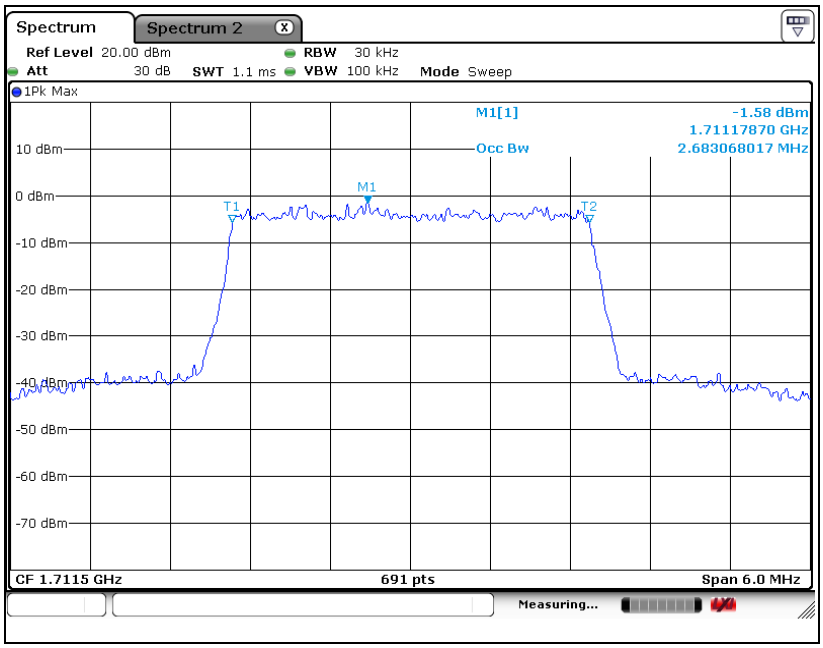


High Channel

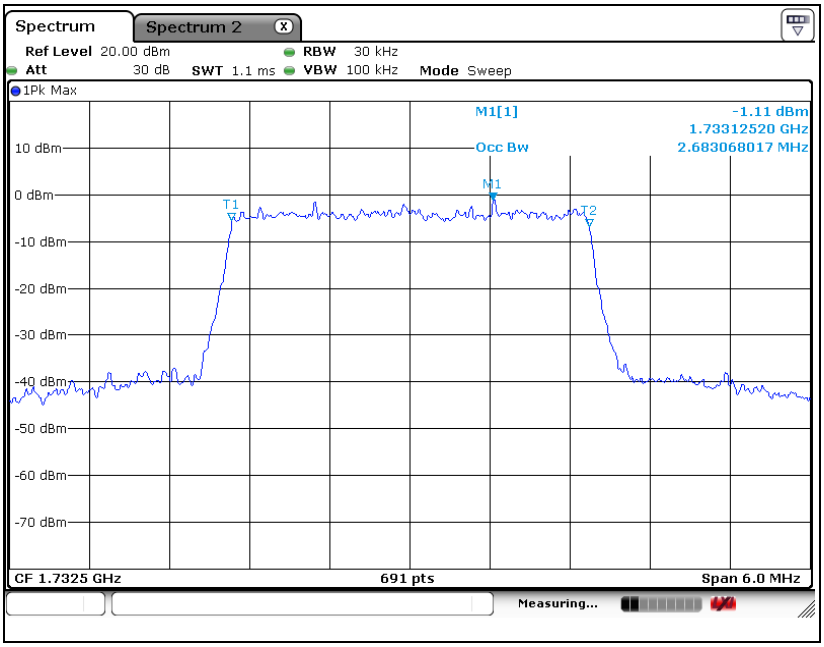


LTE band 4 (3 ㎒ - 16QAM)

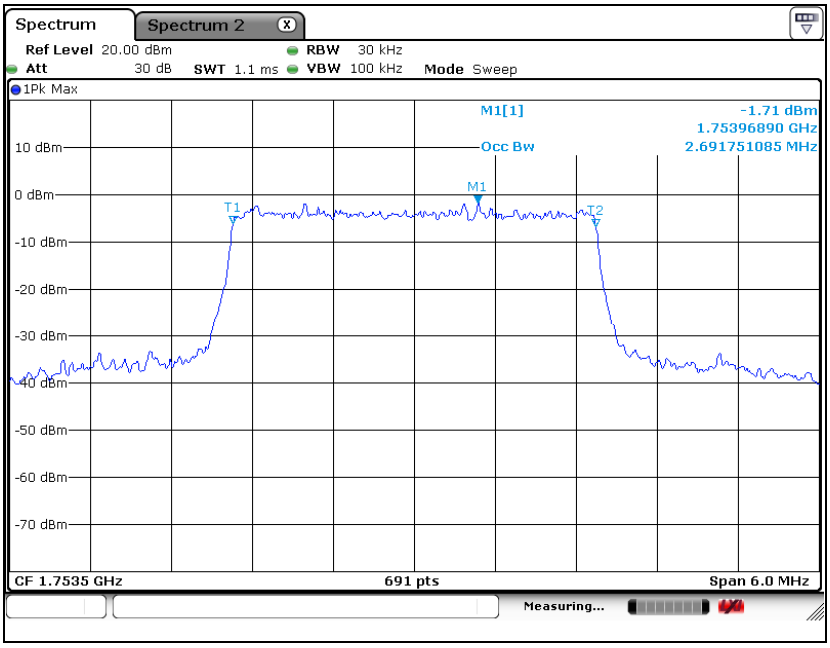
Low Channel



Middle Channel

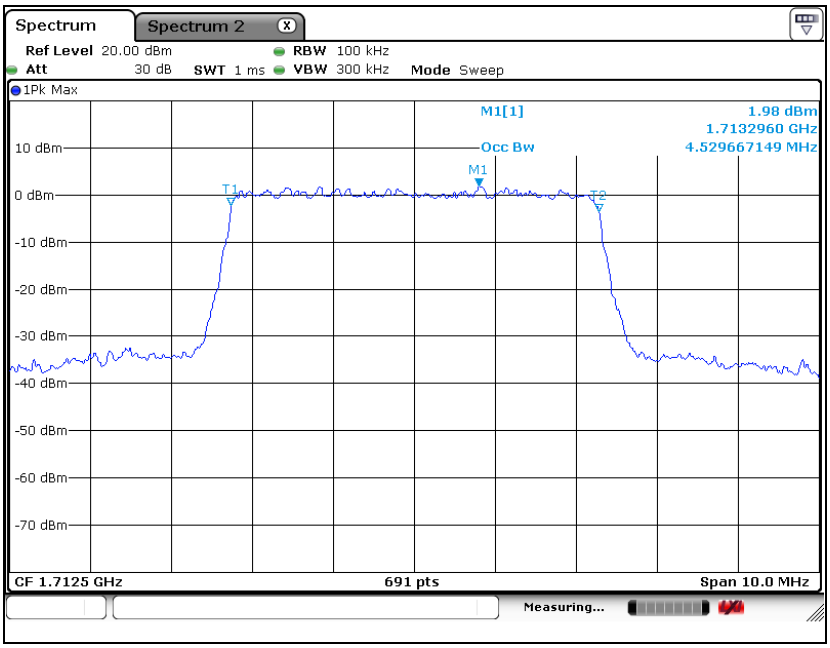


High Channel

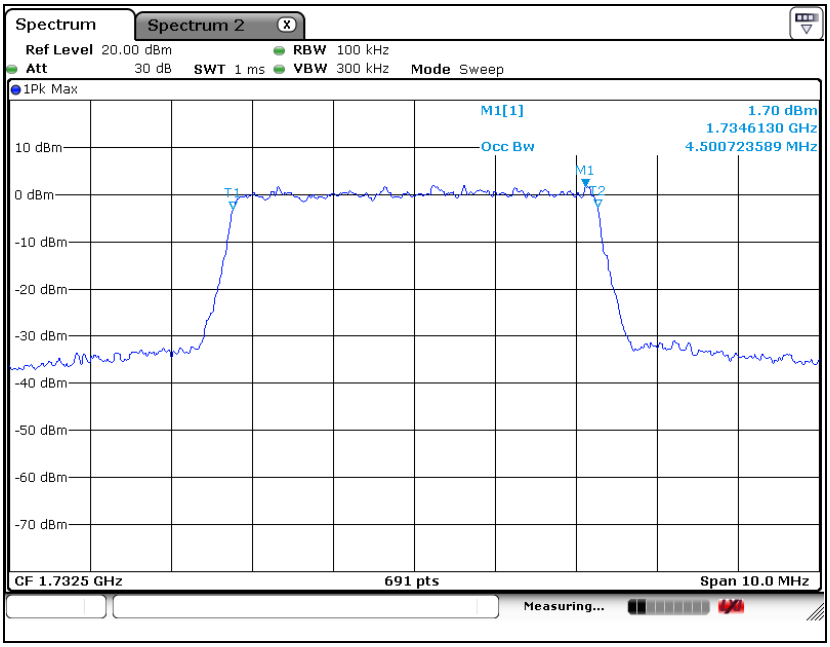


LTE band 4 (5 ㎒ - QPSK)

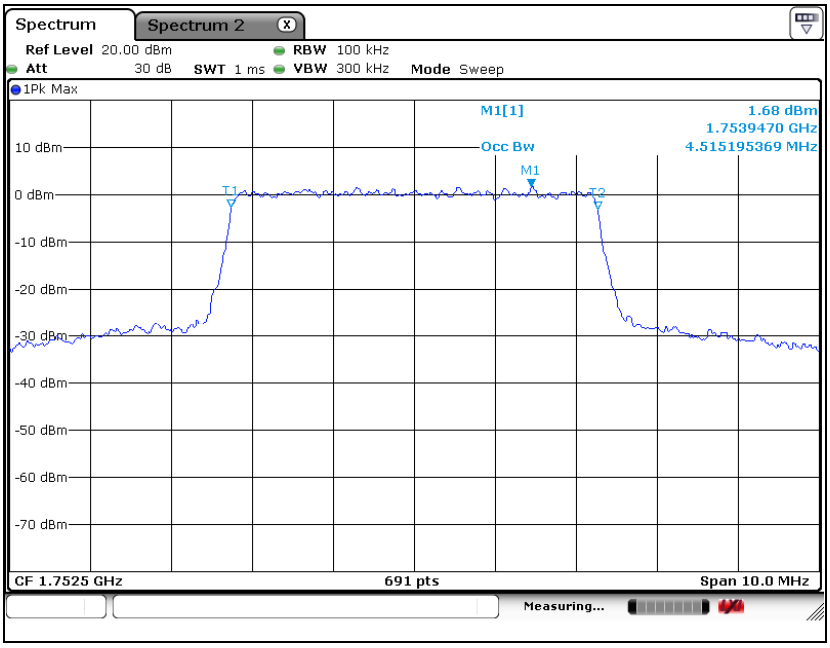
Low Channel



Middle Channel

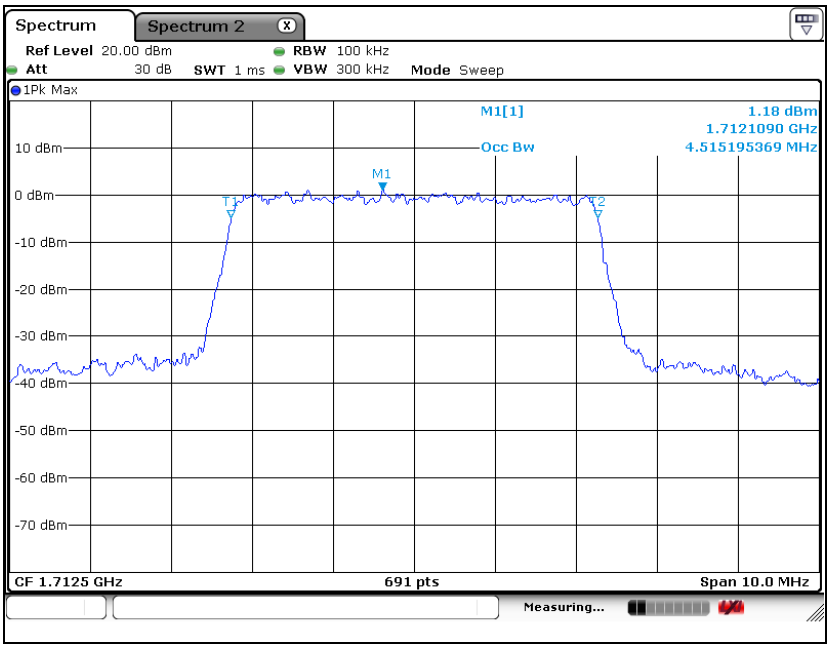


High Channel

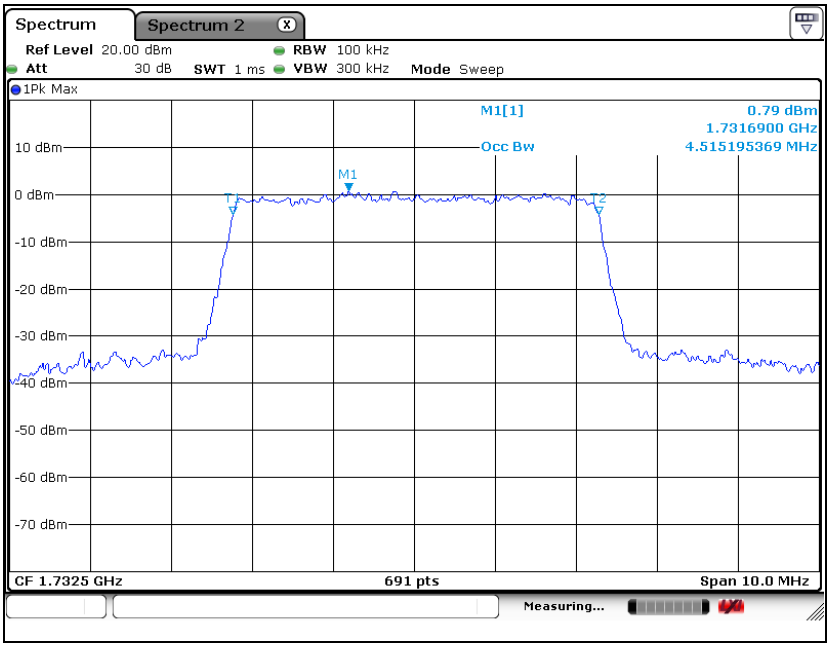


LTE band 4 (5 ㎒ - 16QAM)

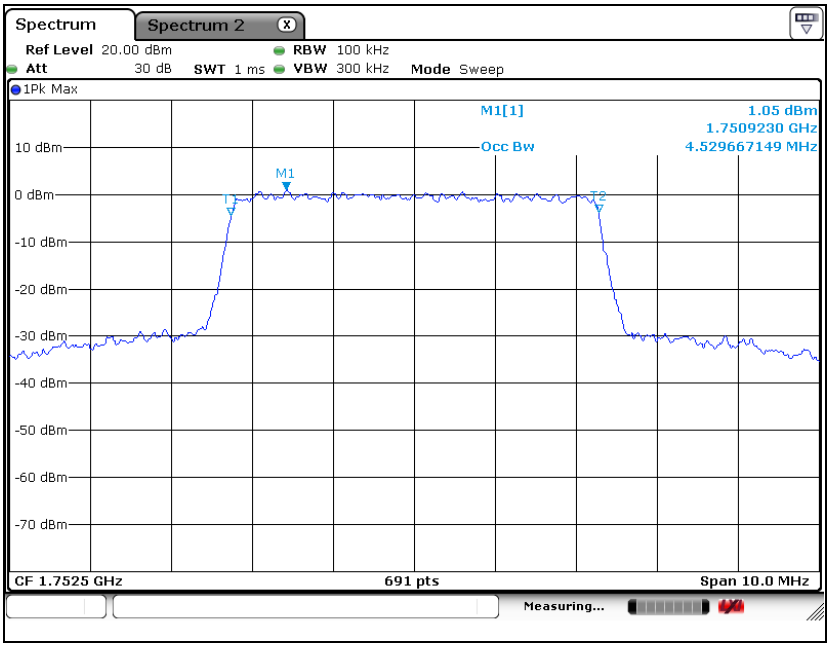
Low Channel



Middle Channel

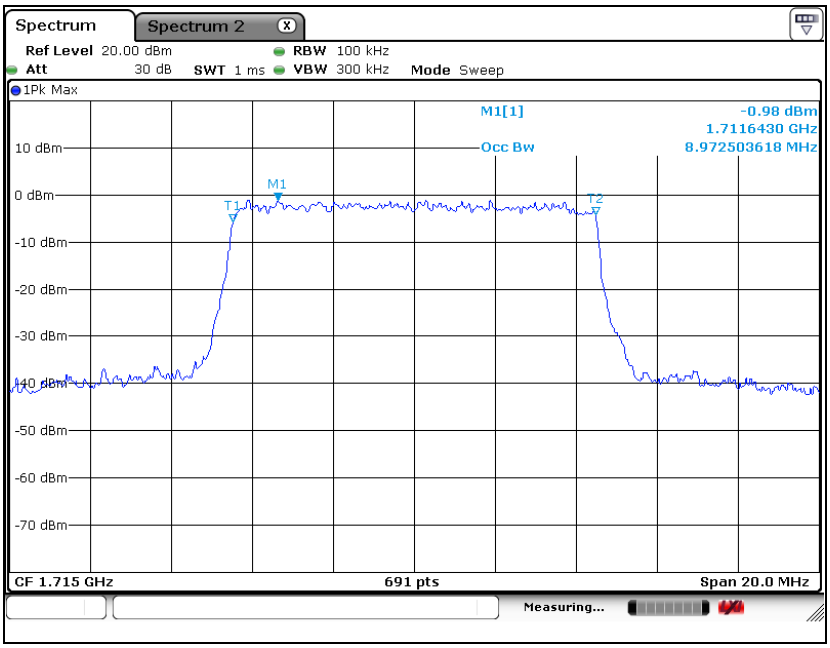


High Channel

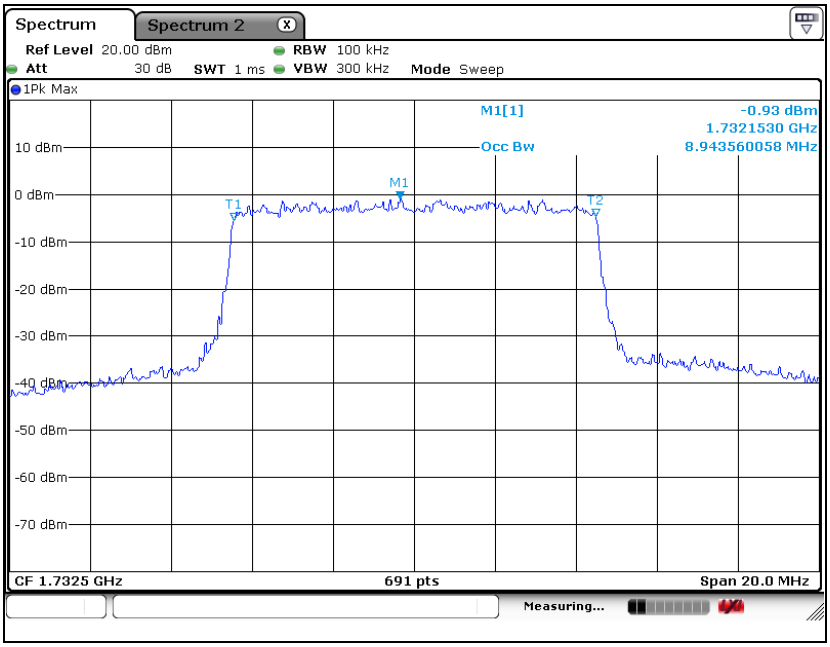


LTE band 4 (10 ㎒ - QPSK)

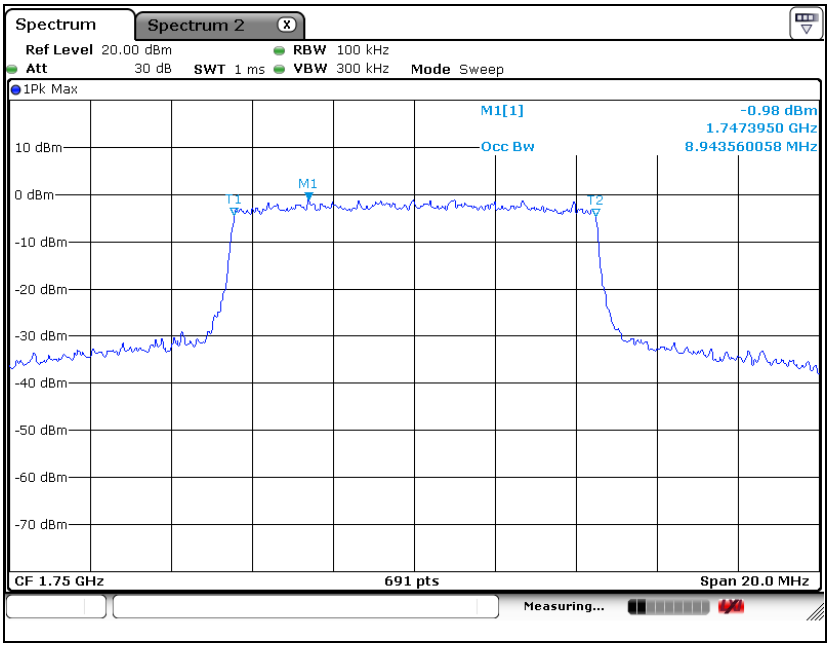
Low Channel



Middle Channel

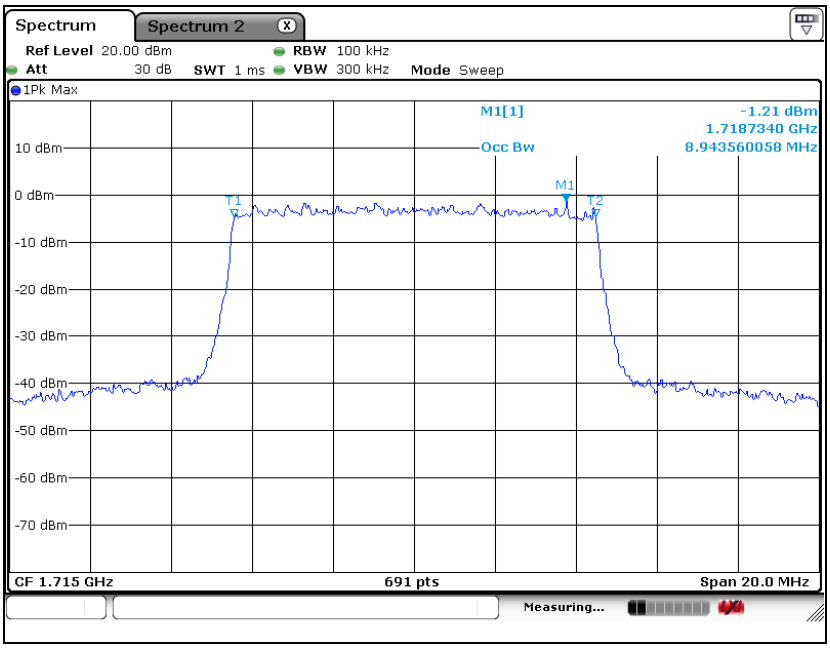


High Channel

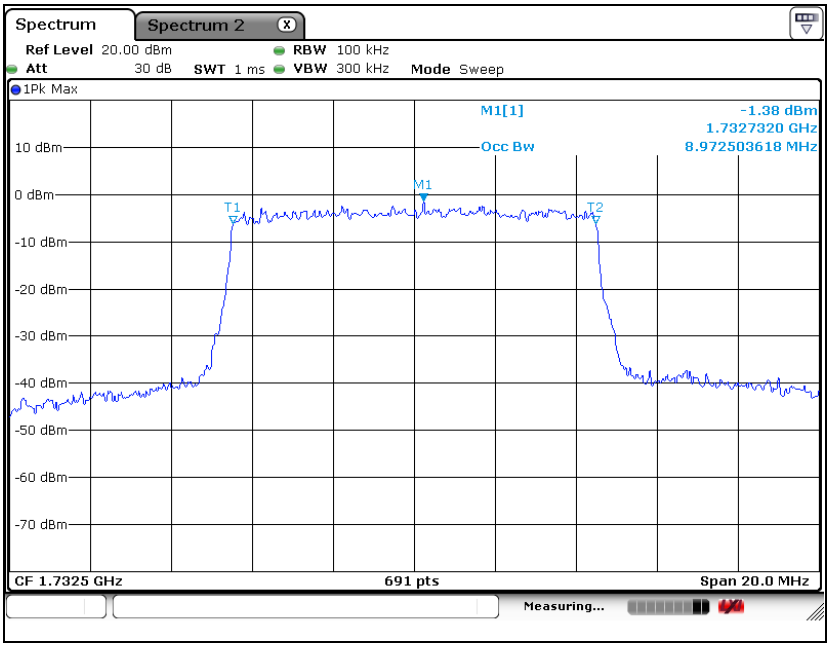


LTE band 4 (10 ㎒ - 16QAM)

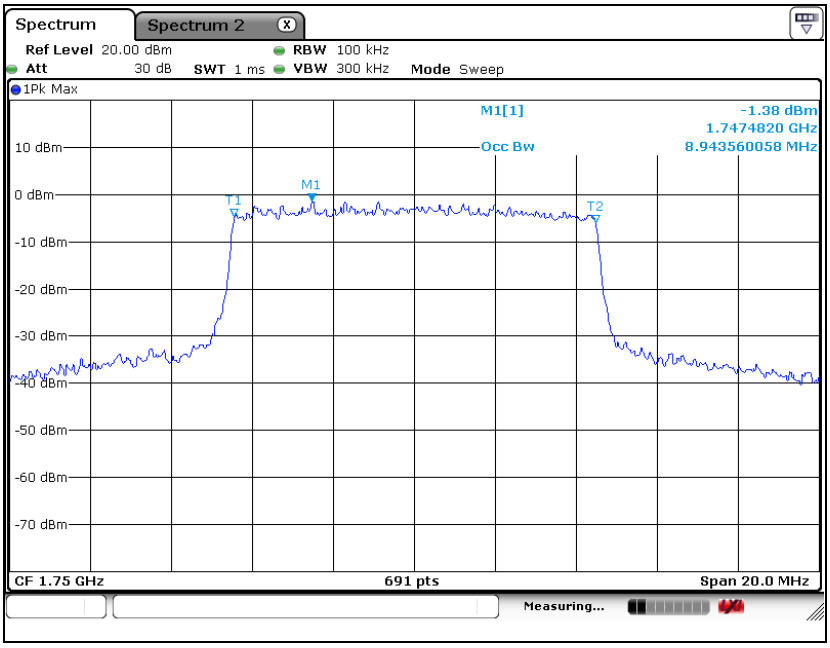
Low Channel



Middle Channel

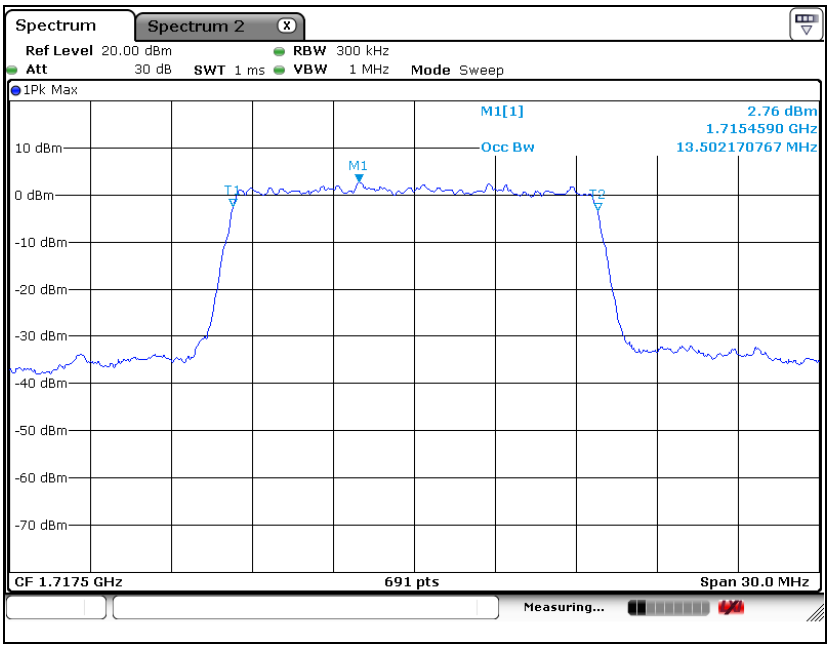


High Channel

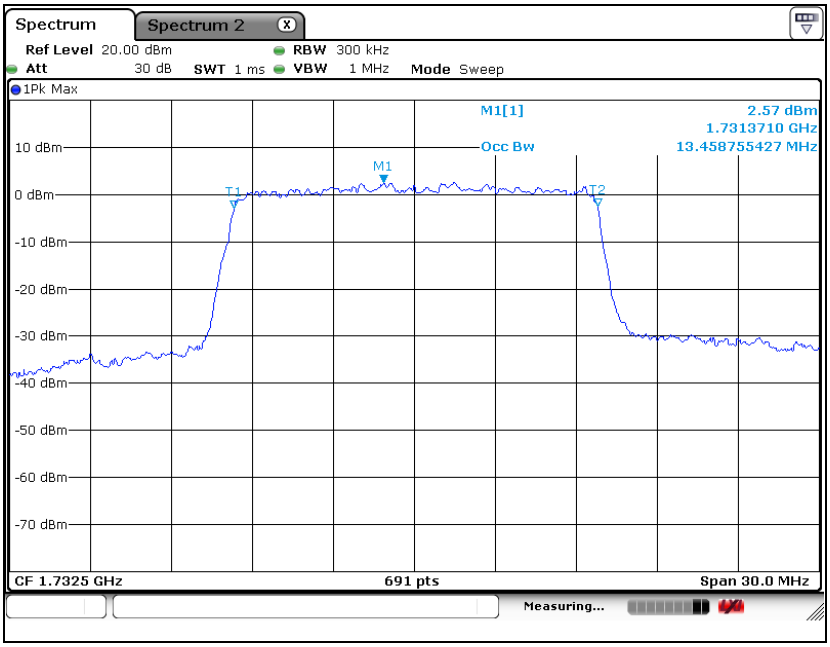


LTE band 4 (15 ㎒ - QPSK)

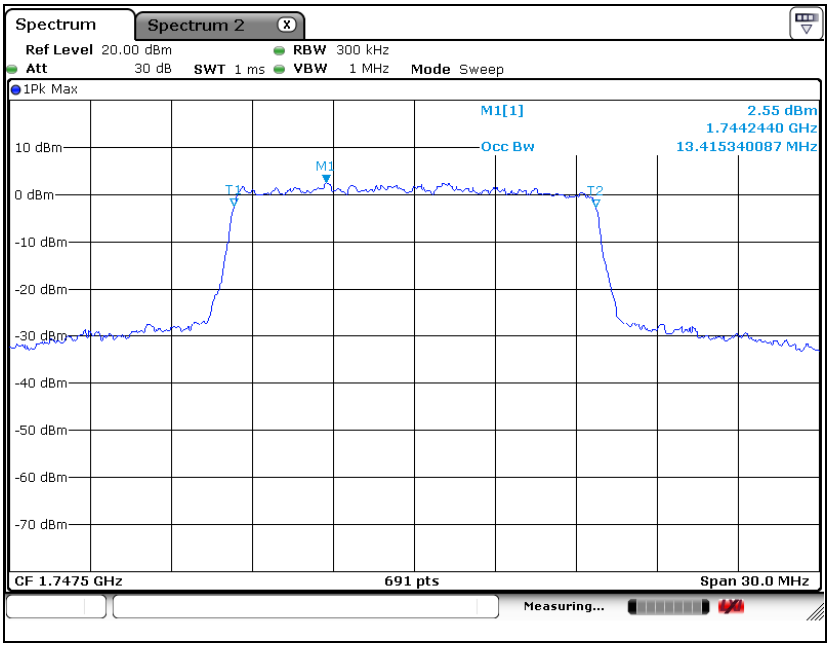
Low Channel



Middle Channel

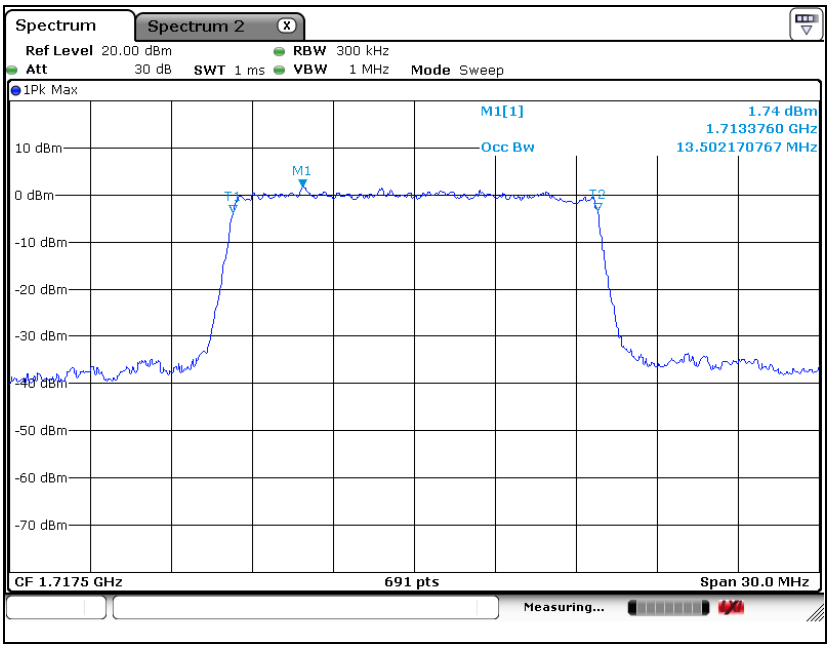


High Channel

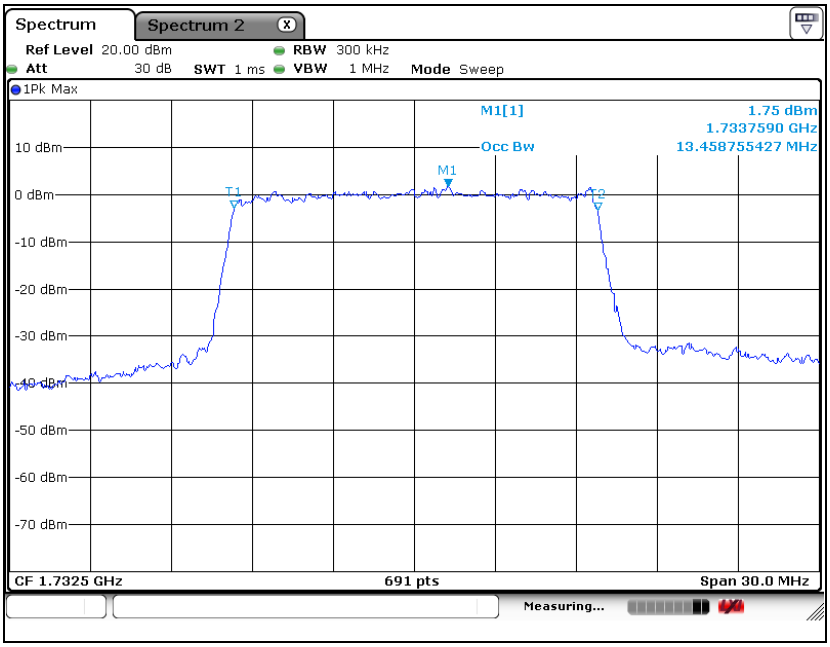


LTE band 4 (15 ㎒ - 16QAM)

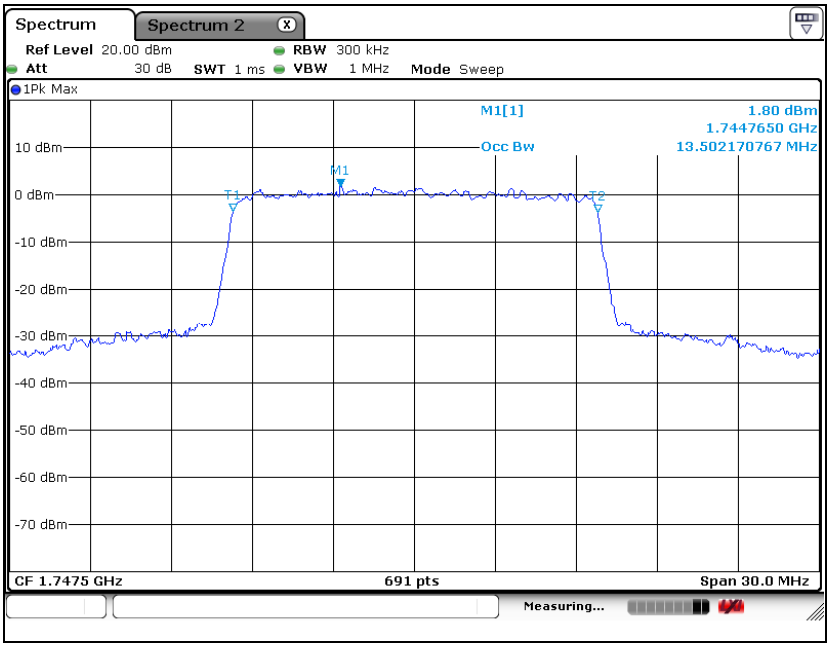
Low Channel



Middle Channel

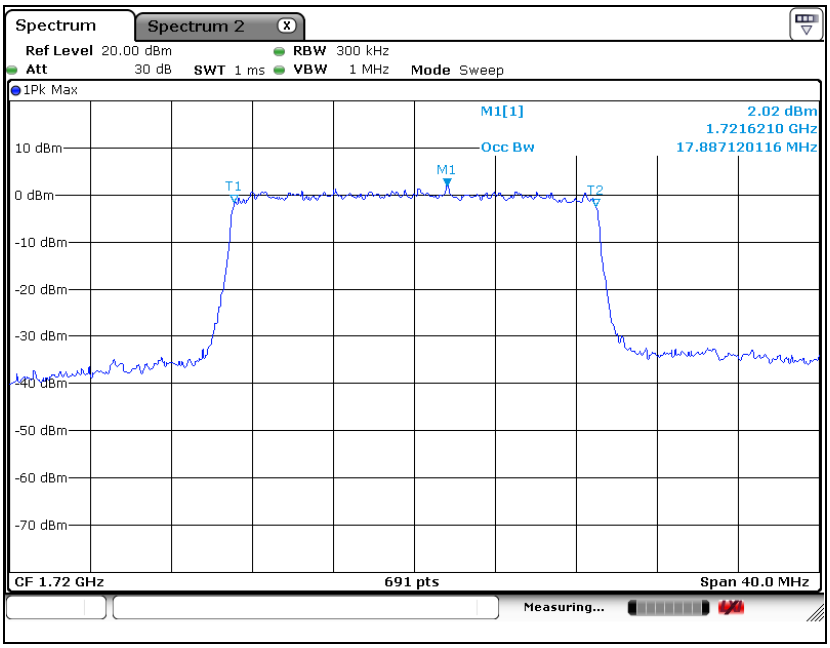


High Channel

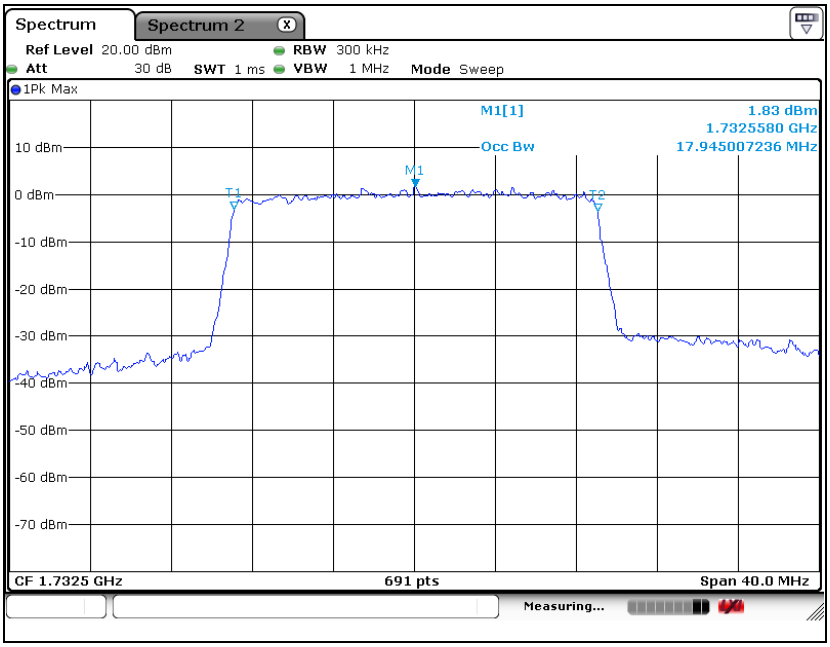


LTE band 4 (20 ㎒ - QPSK)

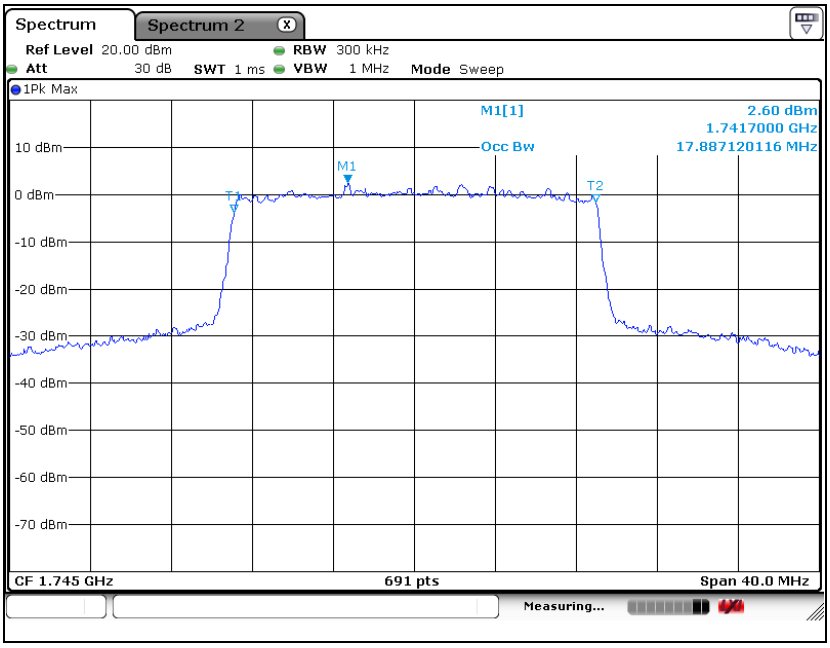
Low Channel



Middle Channel

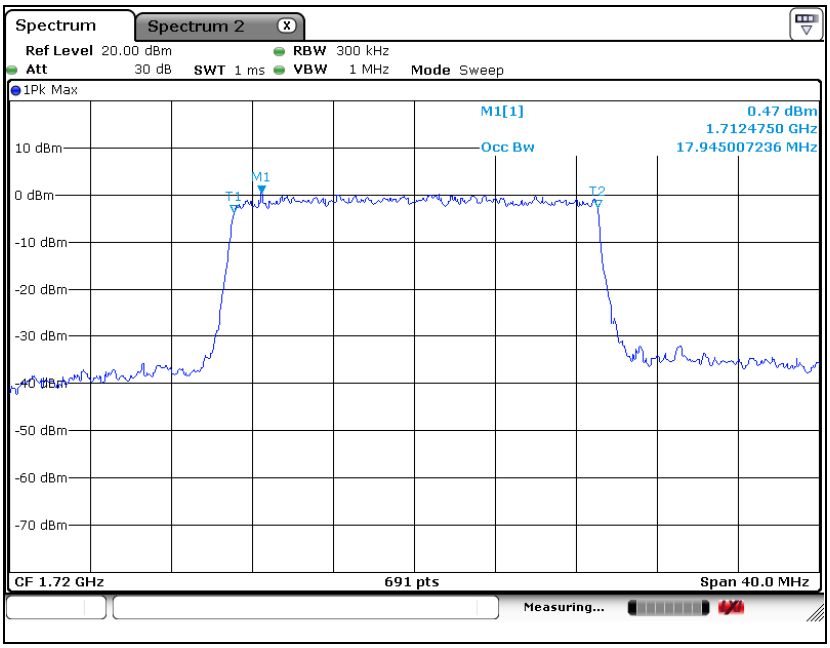


High Channel

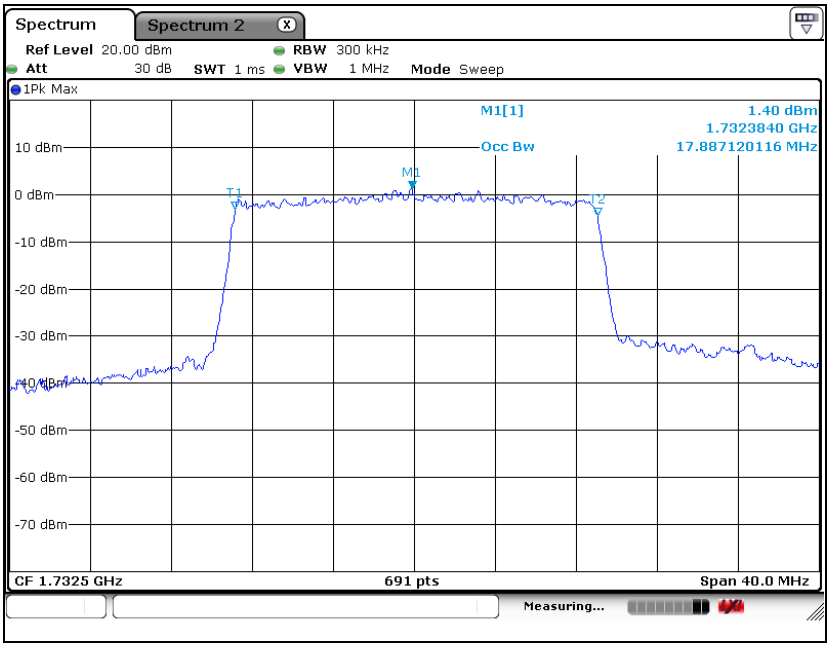


LTE band 4 (20 ㎒ - 16QAM)

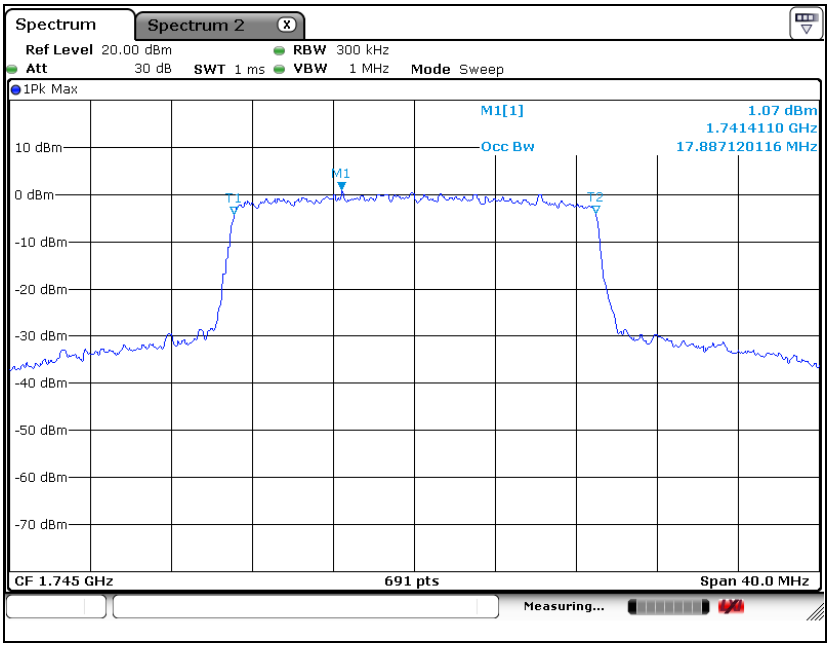
Low Channel



Middle Channel

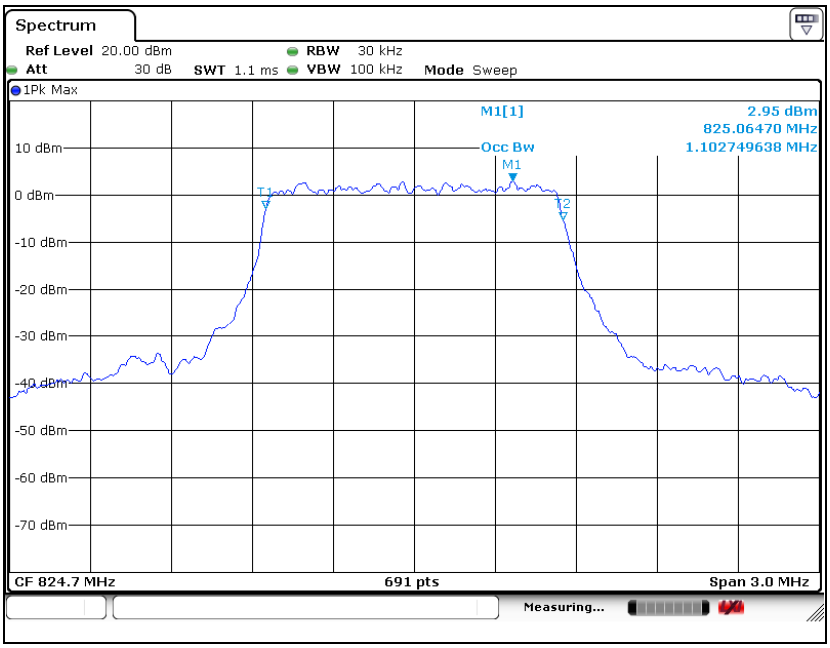


High Channel

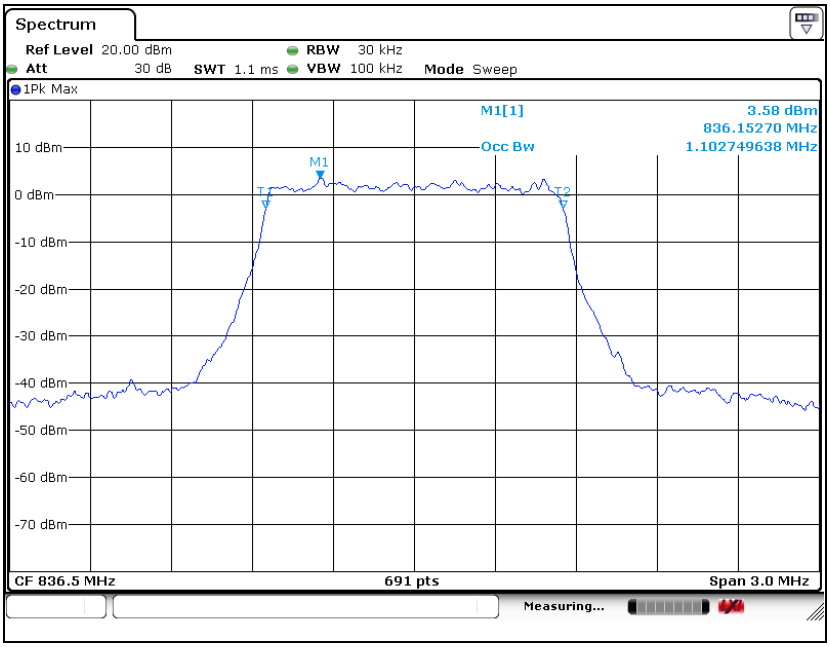


LTE band 5 (1.4 ㎒ - QPSK)

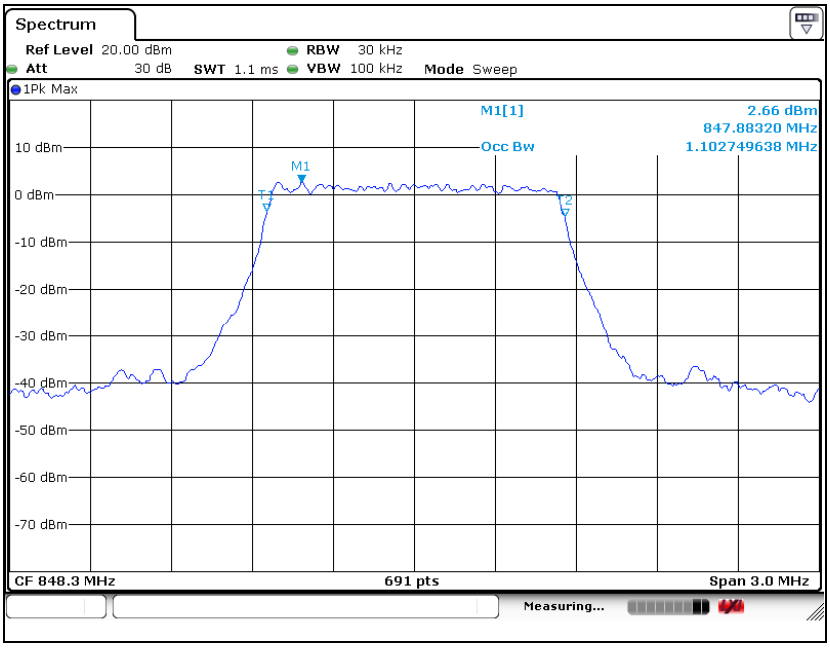
Low Channel



Middle Channel

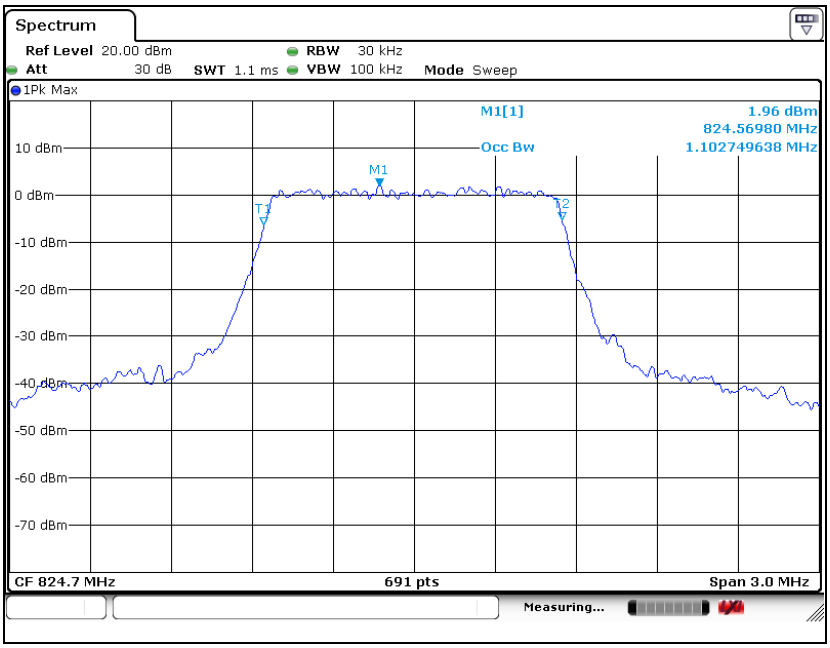


High Channel

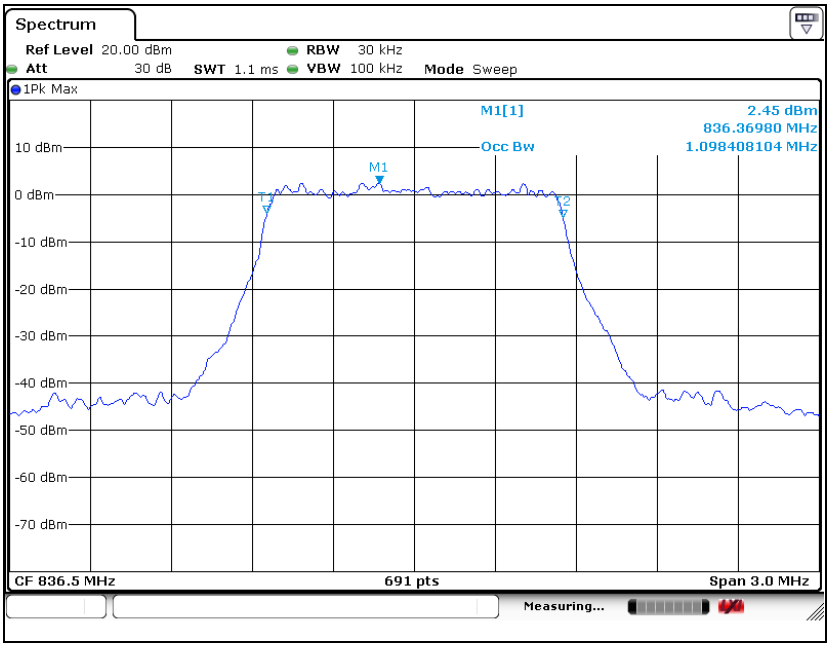


LTE band 5 (1.4 ㎒ - 16QAM)

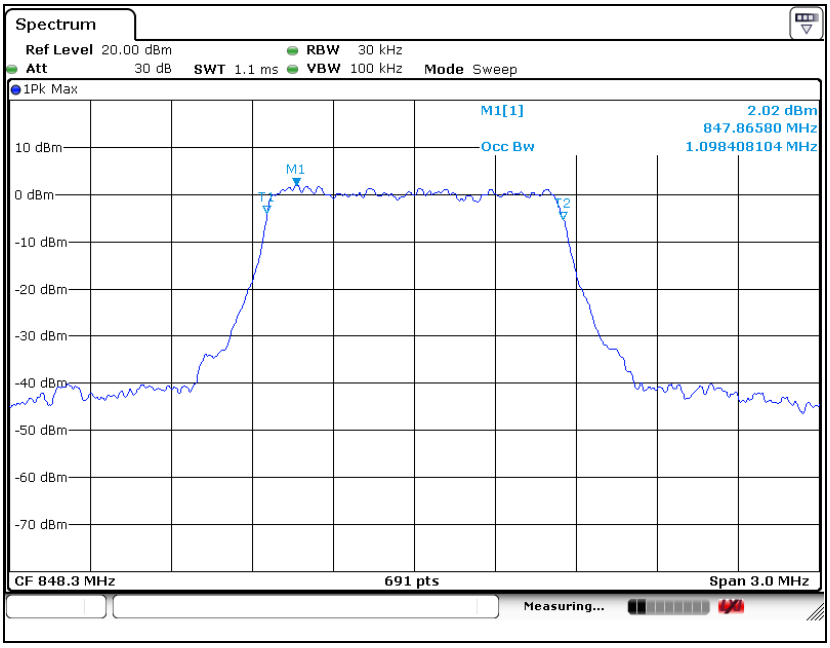
Low Channel



Middle Channel

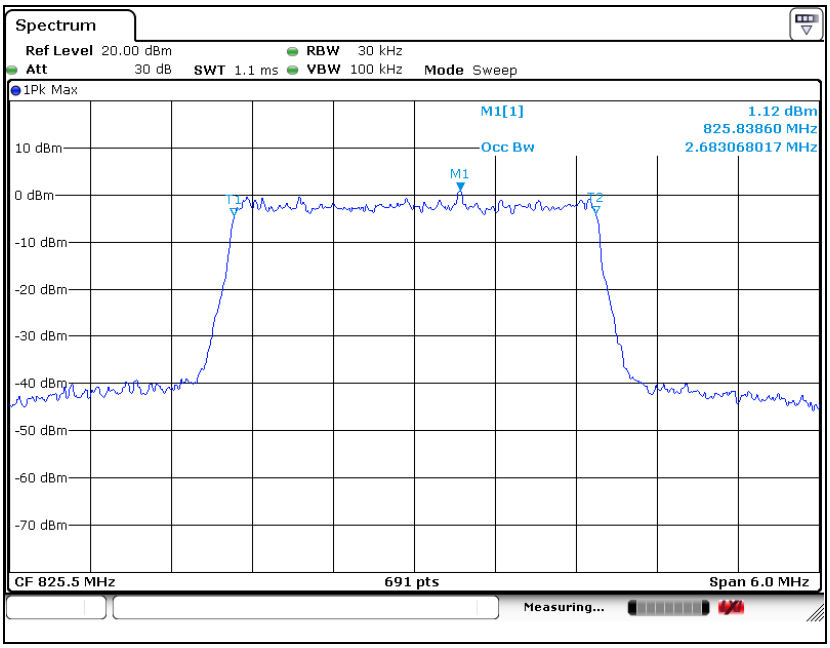


High Channel

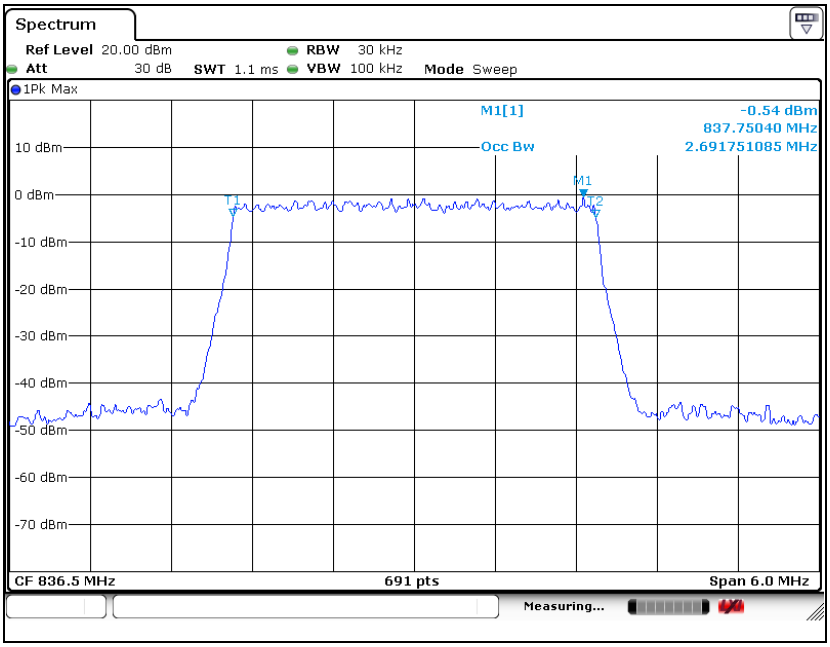


LTE band 5 (3 ㎒ - QPSK)

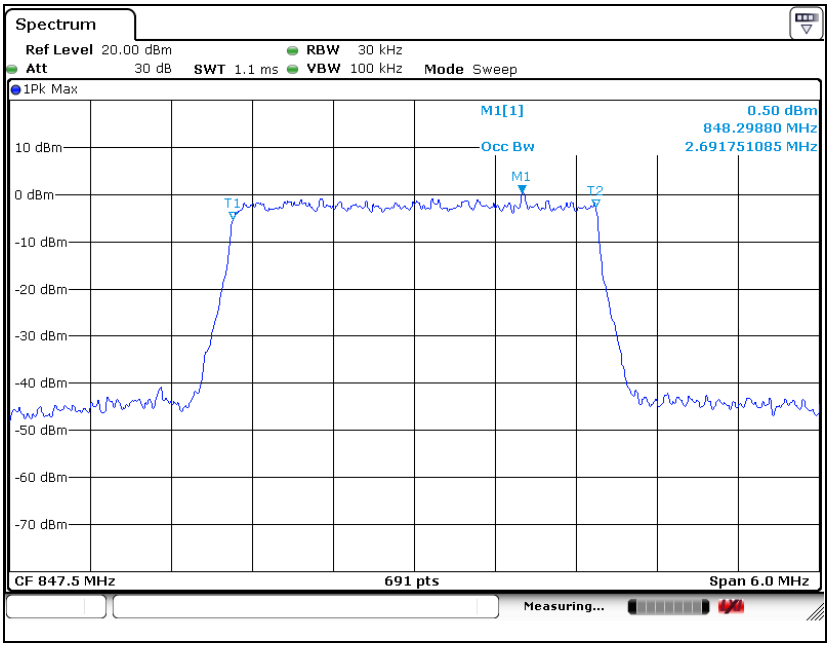
Low Channel



Middle Channel

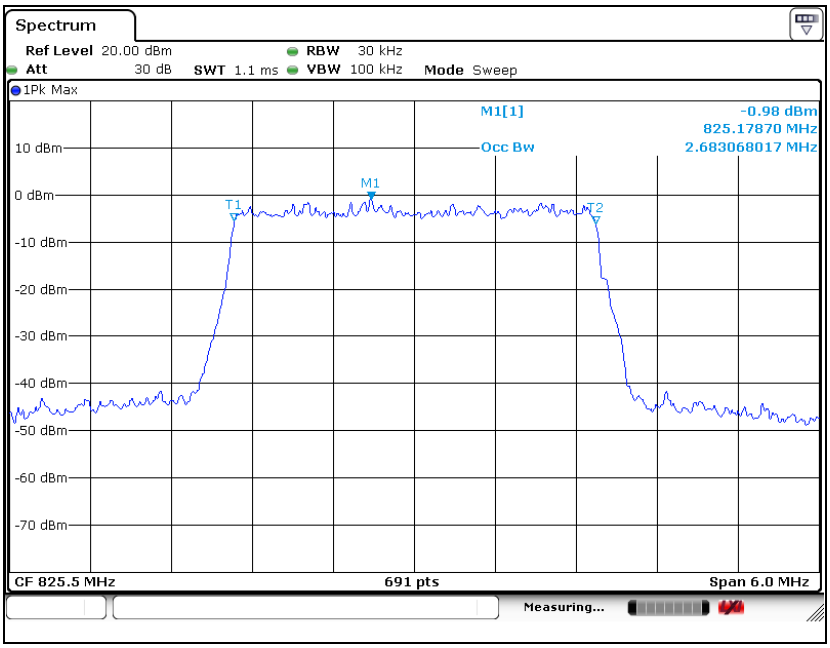


High Channel

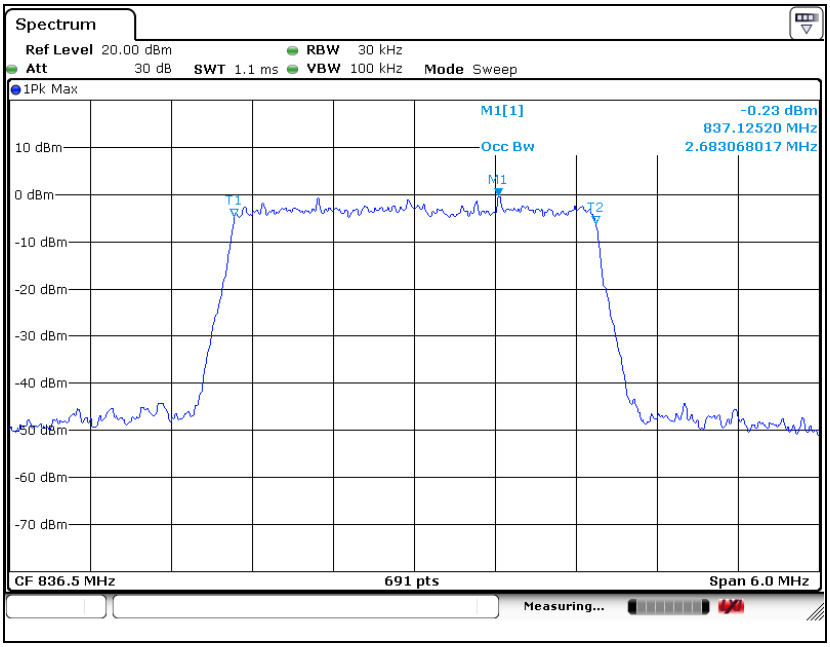


LTE band 5 (3 ㎒ - 16QAM)

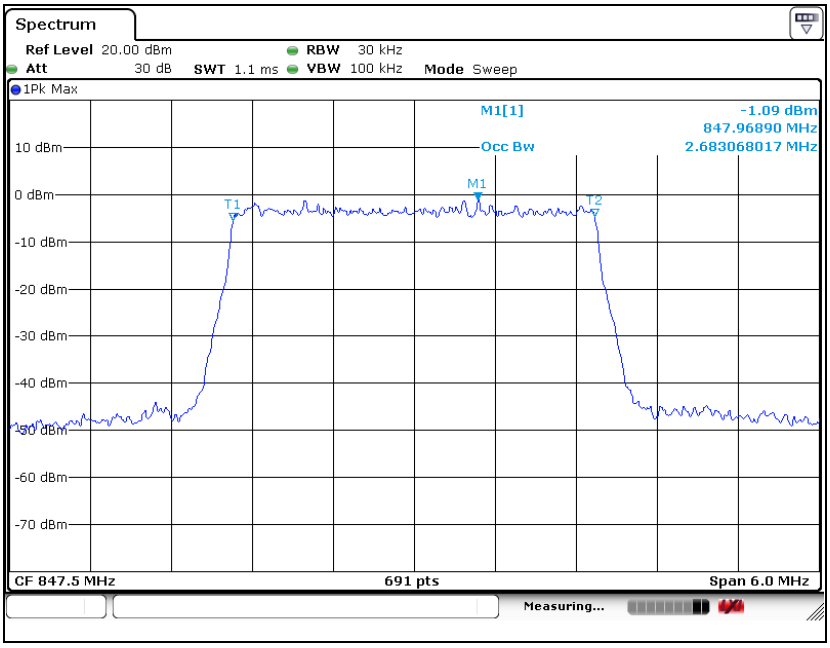
Low Channel



Middle Channel

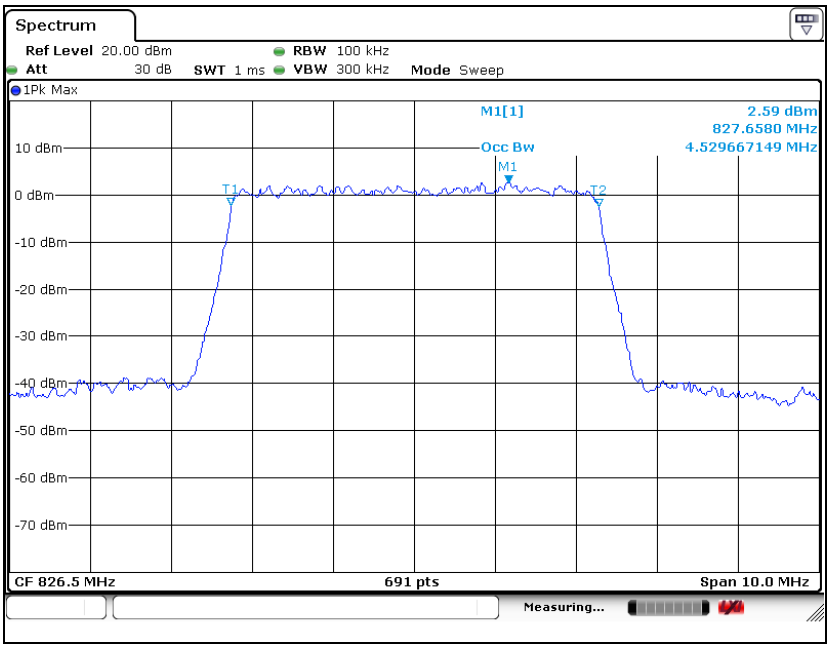


High Channel

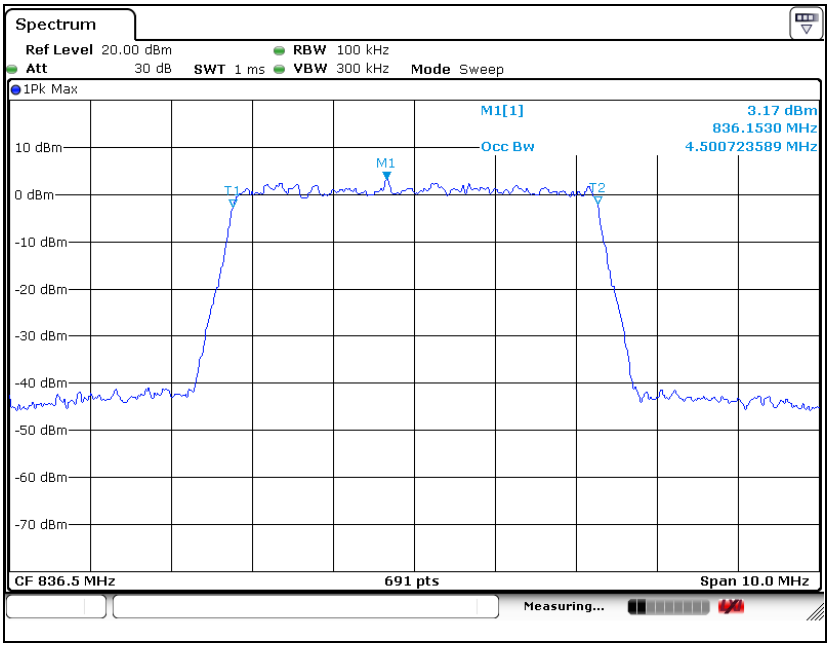


LTE band 5 (5 ㎒ - QPSK)

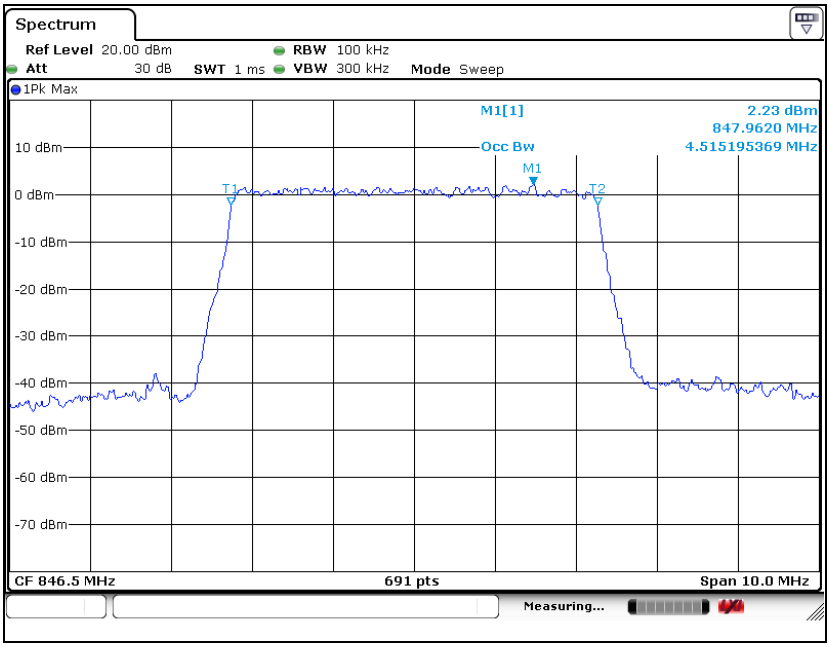
Low Channel



Middle Channel

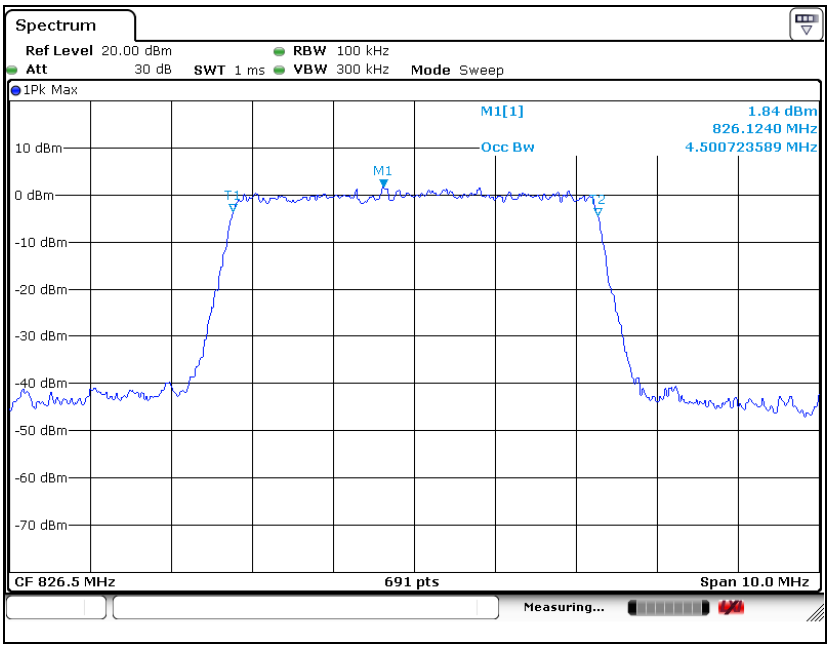


High Channel

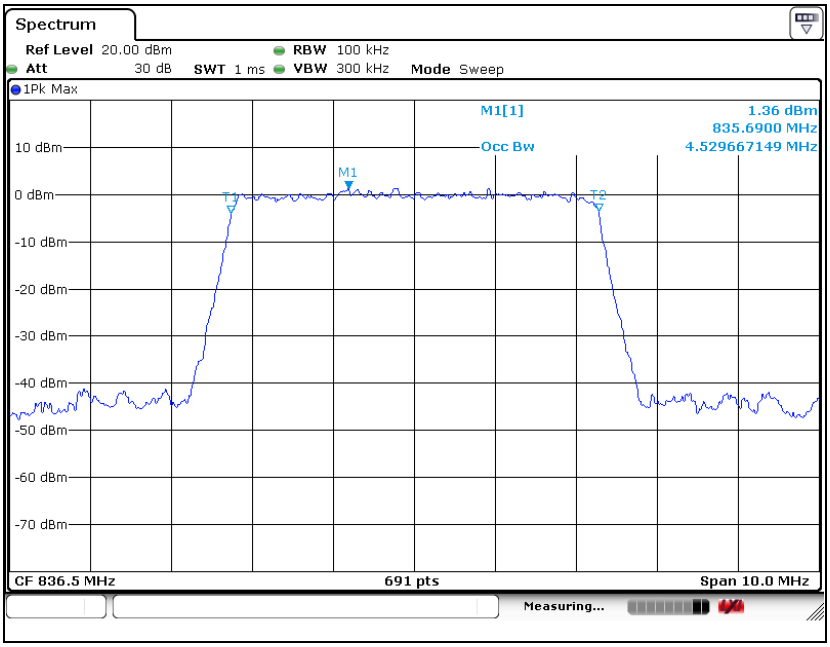


LTE band 5 (5 ㎒ - 16QAM)

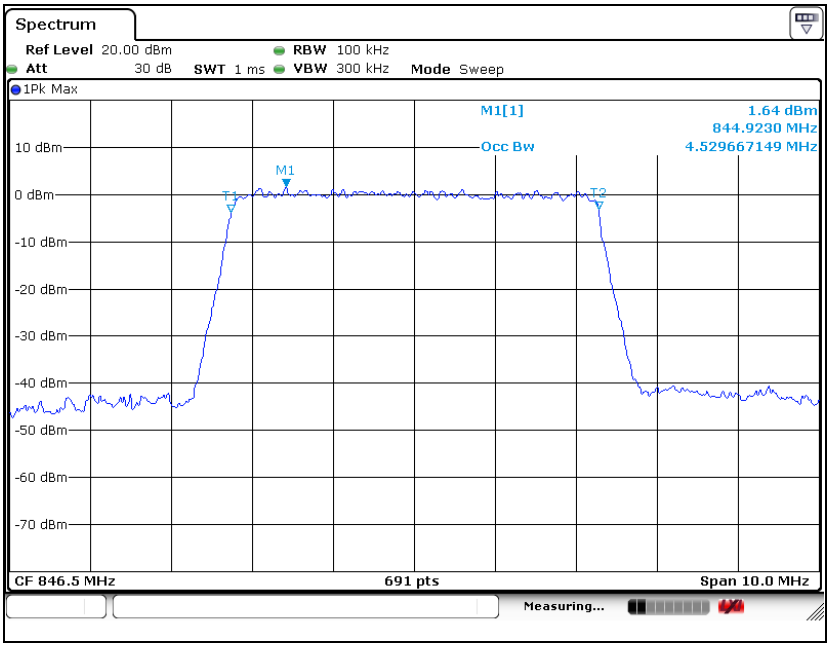
Low Channel



Middle Channel

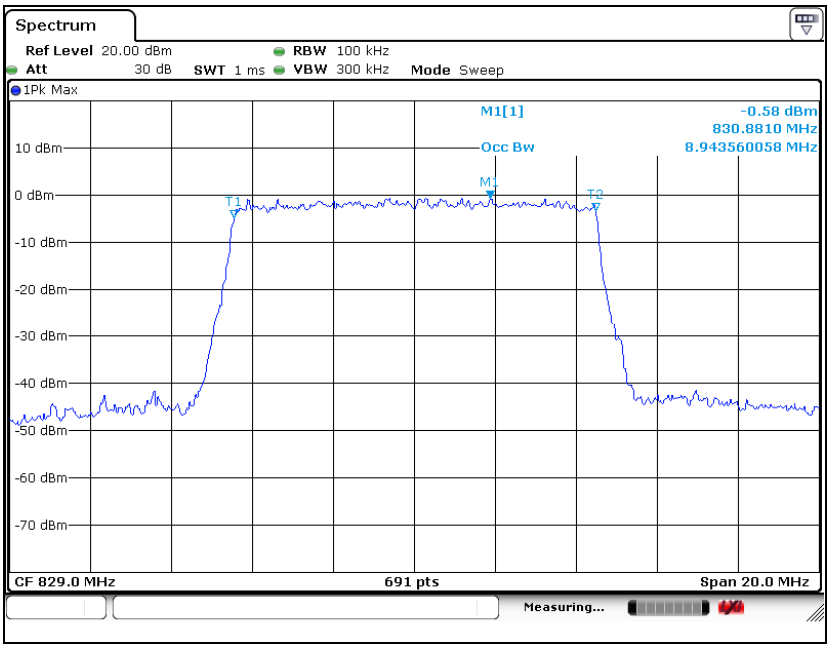


High Channel

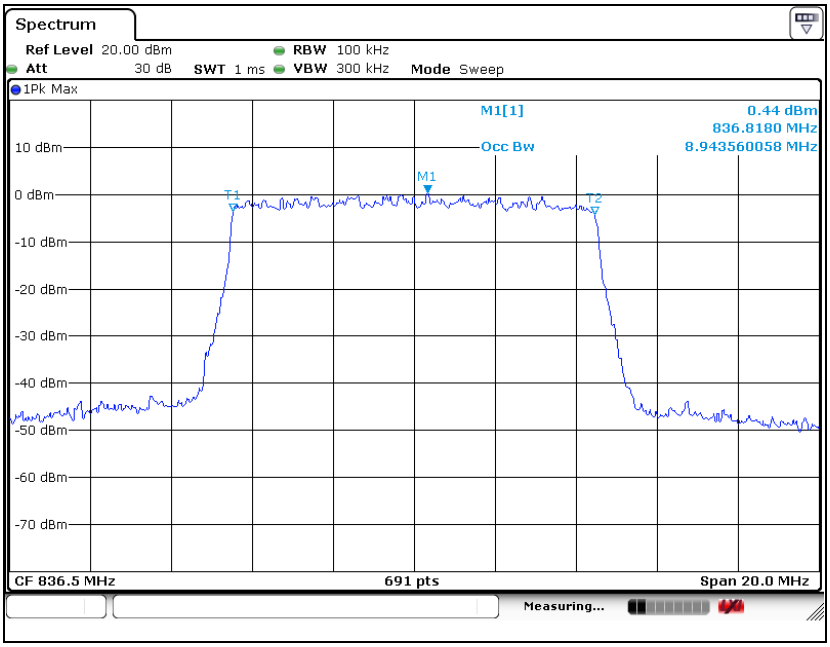


LTE band 5 (10 ㎒ - QPSK)

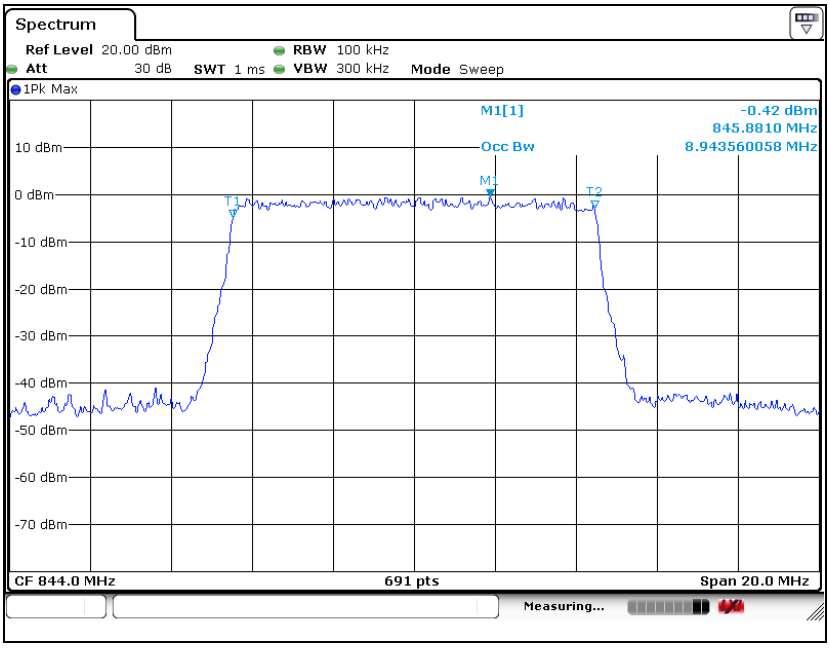
Low Channel



Middle Channel

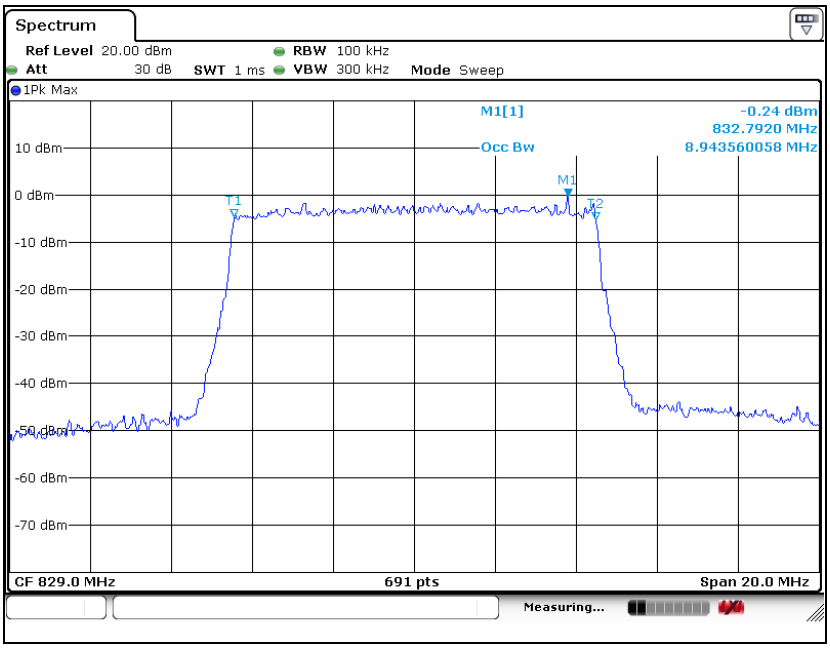


High Channel

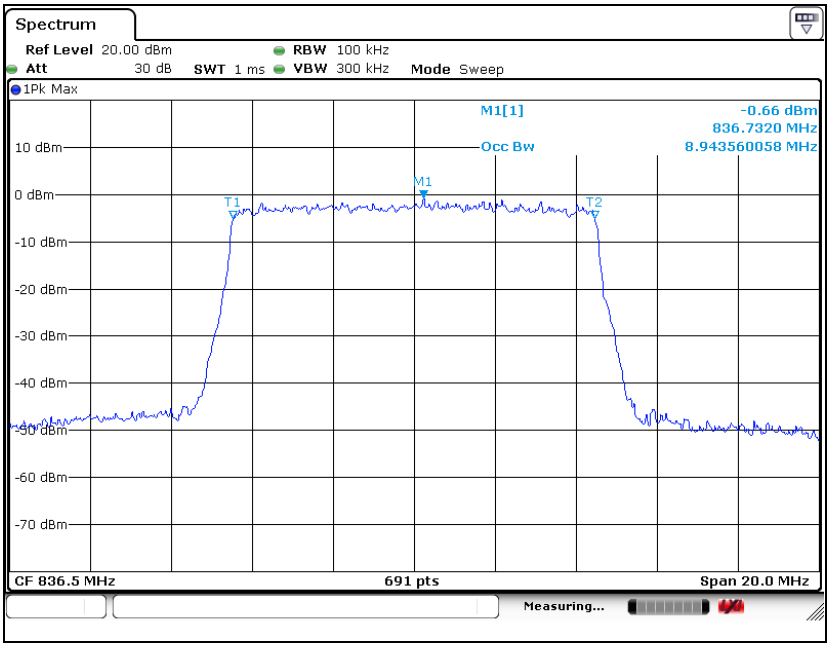


LTE band 5 (10 ㎒ - 16QAM)

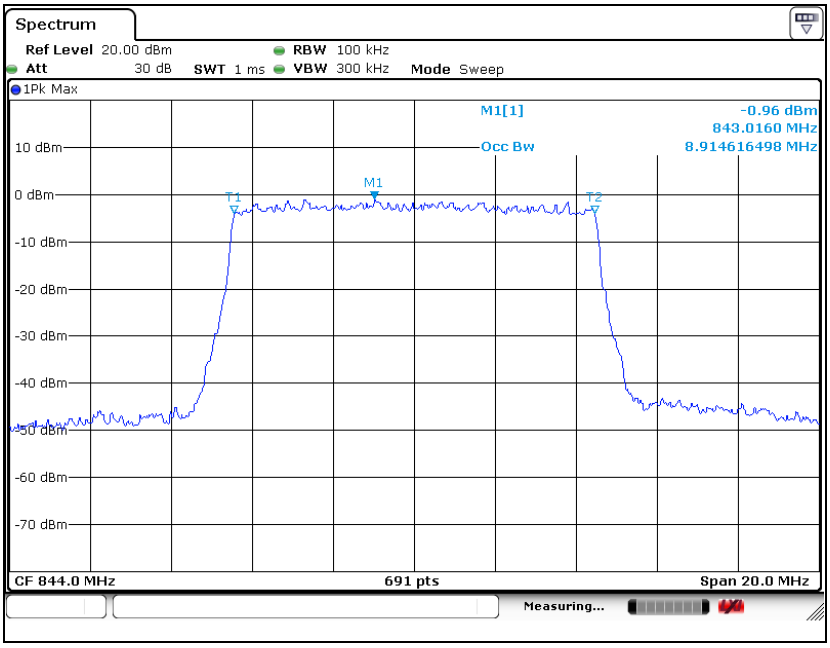
Low Channel



Middle Channel

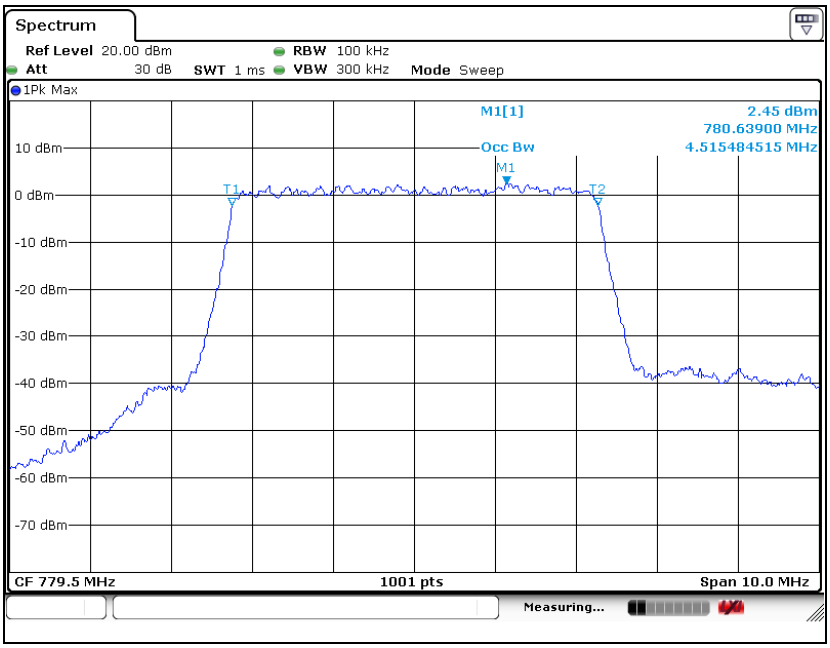


High Channel

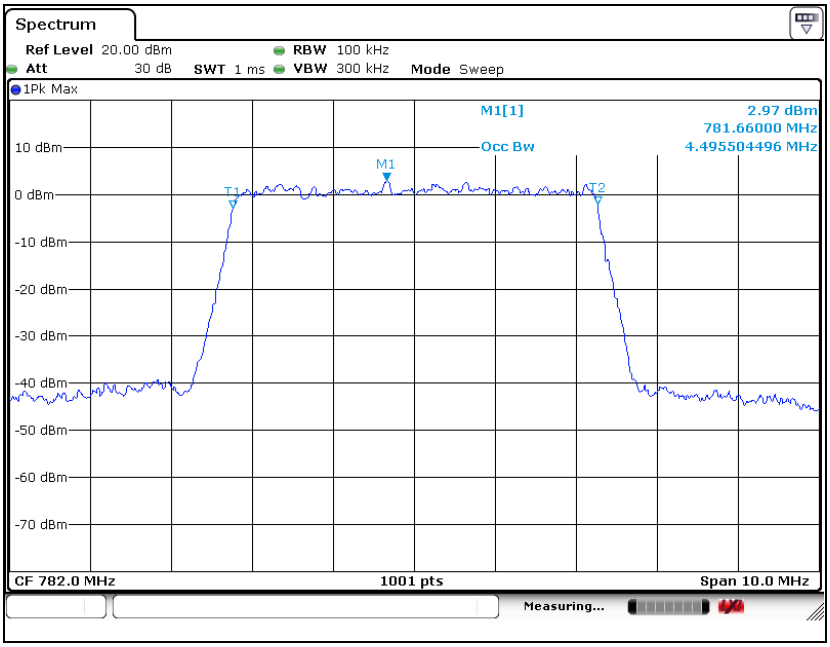


LTE band 13 (5 ㎒ - QPSK)

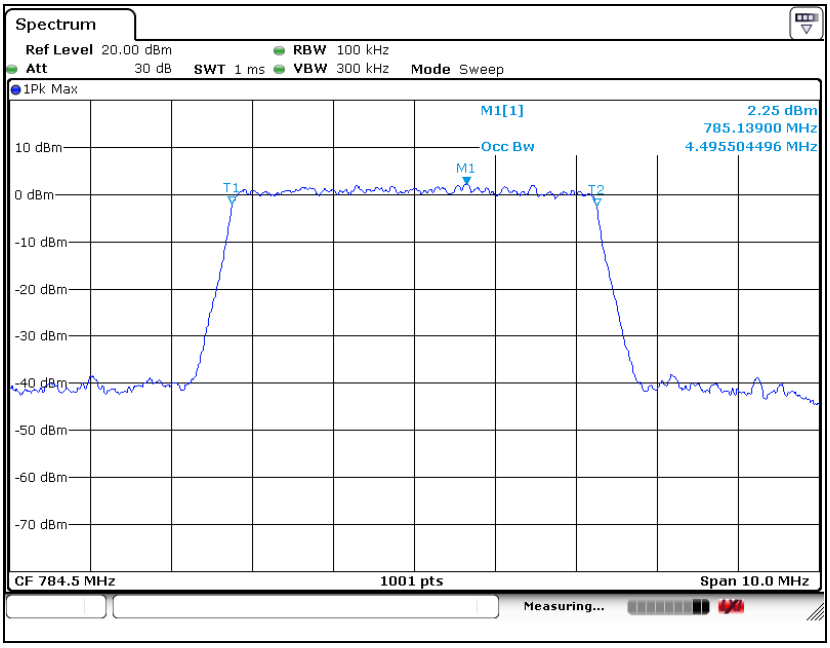
Low Channel



Middle Channel

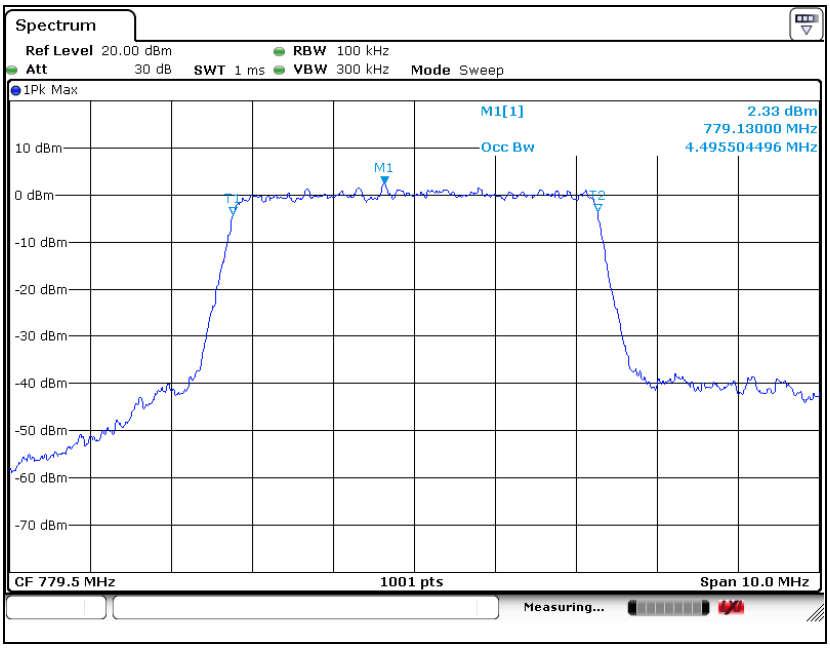


High Channel

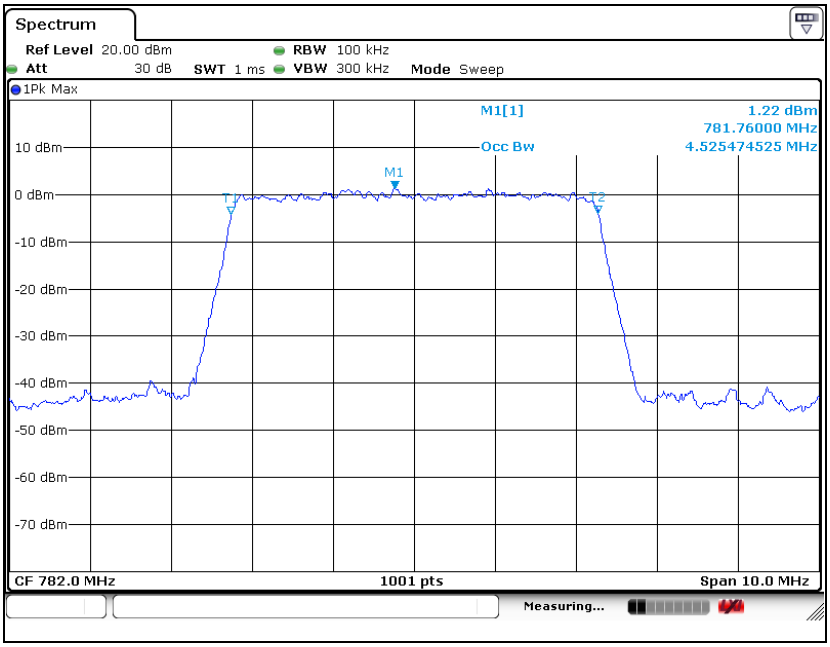


LTE band 13 (5 ㎒ - 16QAM)

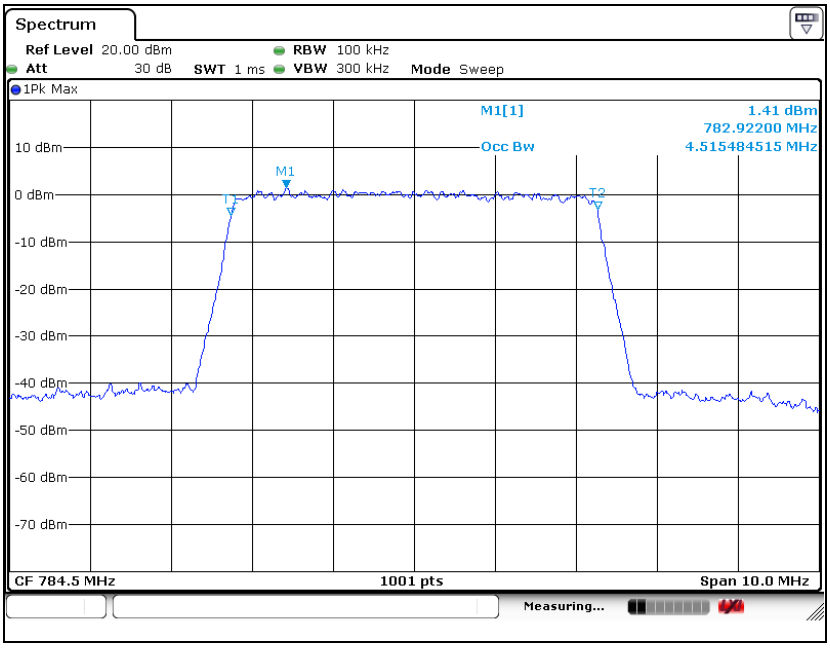
Low Channel



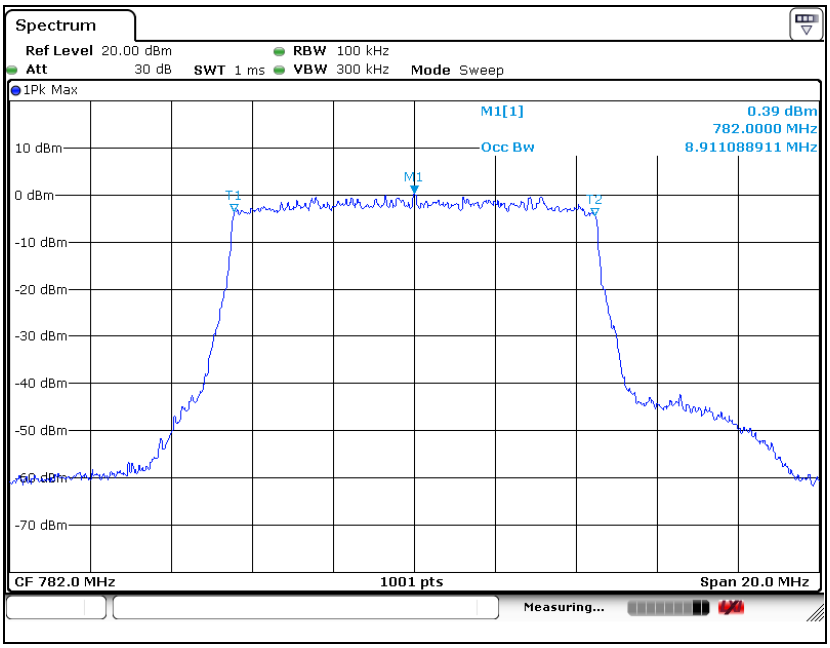
Middle Channel



High Channel



LTE band 13 (10 ㎒ - QPSK)
Middle Channel



LTE band 13 (10 ㎒ - 16QAM)
Middle Channel