Variant FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	9836
FCC ID	:	IHDT56VE1
STANDARD	:	47 CFR Part 2, 22(H), 24(E), 27(L), 27(M), 27(F), 27(H)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)

This is a variant report which is only valid together with the original test report. The product was received on Dec. 10, 2016 and was completely tested on Dec. 27, 2016. We, SPORTON INTERNATIONAL (KUNSHAN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-D-2010 and the testing has shown the tested sample to be in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (KUNSHAN) INC., the test report shall not be reproduced except in full.

James Huang

Prepared by: James Huang / Manager

Approved by: Jones Tsai / Manager

Testing Laboratory 2627

SPORTON INTERNATIONAL (KUNSHAN) INC.
No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China

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APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

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APPENDIX D. PRODUCT EQUALITY DECLARATION

APPENDIX E. ORIGINAL REPORT

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG6O1212-10B	Rev. 01	This is a variant report for 9836. The product equality declaration could be referred to Appendix D. All the test cases were performed in original report which can be referred to Sporton Report Number FG6O1212B. Based on the original test report, only LTE B4/B7/B66 conducted power, Band Edge, Conducted Spurious Emission, OBW, the worse cases of Radiated Spurious Emission and EIRP were verified for differences from original report.	Jan. 13, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
0	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt	PASS	-
3.5	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.6	§2.1051 §27.53(h)	Conducted Band Edge Measurement (Band 4) (Band 66)	< 43+10log10(P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7)	§27.53(m)(4)		
3.7	§2.1051 §27.53(h)	Conducted Spurious Emission (Band 4) (Band 66)	< 43+10log10(P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7)	< 55+10$\log_{10}$(P[Watts])		
4.4	§2.1053 §27.53(h)	Radiated Spurious Emission (Band 4) (Band 66)	< 43+10$\log_{10}$(P[Watts])	PASS	Under limit 31.79 dB at 10122.000 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7)	< 55+10$\log_{10}$(P[Watts])		

1 General Description

1.1 Applicant

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC
222 W, Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	9836
FCC ID	IHDT56VE1
EUT supports Radios application	CDMA/EV-DO/GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE/ WLAN2.4GHz 802.11b/g/n HT20/ WLAN5GHz 802.11a/n HT20/HT40 Bluetooth v3.0+EDR Bluetooth v4.0/4.2 LE
IMEI Code	Conducted: 351856080033491 Radiation: 351856080033848
HW Version	DVT2
SW Version	potter_oem_userdebug_7.0_NPN25.124_1787_intcfg-test-keys_oem
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 17 : 706.5 MHz ~ 713.5 MHz LTE Band 25 : 1850.7 MHz ~ 1914.3 MHz LTE Band 26 : 824.7 MHz ~ 848.3 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5 MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 17 : 736.5 MHz ~ 743.5 MHz LTE Band 25 : 1930.7 MHz ~ 1994.3 MHz LTE Band 26 : 869.7 MHz ~ 893.3 MHz LTE Band 38 : 2572.5 MHz ~ 2617.5 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz LTE Band 66 : 2110.7 MHz~ 2199.3 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power	LTE Band 4 : 23.45 dBm LTE Band 7 : 23.16 dBm LTE Band 66 : 23.32 dBm
Antenna Gain	LTE Band 4 : -0.37 dBi LTE Band 7 : 2.51 dBi LTE Band 66 : -0.37 dBi
Type of Modulation	QPSK / 16QAM

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola(Salom)	**Model Name**	SSW-2680US
	Power Rating	I/P: 100-240 Vac, 500mA, O/P: 5 Vdc,1600mA or 9Vdc,1600mA or 12Vdc,1200mA		
AC Adapter 2	**Brand Name**	Motorola(Salom)	**Model Name**	SC-22
	Power Rating	I/P: 100-240 Vac, 500mA, O/P: 5 Vdc,3000mA or 9Vdc,1600mA or 12Vdc,1200mA		
Battery	**Brand Name**	Motorola (SUNWODA)	**Model Name**	HG40
	Power Rating	3.8Vdc,2810/ 3000mAh (Min/Typ)	**Type**	Li-ion
Earphone	**Brand Name**	Motorola(Jiangxi Lianchuang)	**Model Name**	MEMD1532B080008
	Signal Line Type	1.2 meter, non-shielded cable, without ferrite core		
USB Cable	**Brand Name**	Motorola	**Model Name**	SKN6461A
	Signal Line Type	1.0 meter, non-shielded cable, without ferrite core		

1.7 Maximum EIRP Power, Frequency Tolerance, and Emission Designator

LTE Band 4		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1754.3	1M10G7D	-	-	1M10W7D	-	-
3	1711.5 ~ 1753.5	2M72G7D	-	-	2M73W7D	-	-
5	1712.5 ~ 1752.5	4M51G7D	-	-	4M50W7D	-	-
10	1715.0 ~ 1750.0	9M03G7D	-	-	9M05W7D	-	-
15	1717.5 ~ 1747.5	13M5G7D	-	-	13M4W7D	-	-
20	1720.0 ~ 1745.0	18M4G7D	-	0.2032	18M6W7D	-	0.1429

LTE Band 7		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	4M49G7D	-	-	4M50W7D	-	-
10	2505.0 ~ 2565.0	9M07G7D	-	-	9M03W7D	-	-
15	2507.5 ~ 2562.5	13M4G7D	-	0.3690	13M4W7D	-	0.2735
20	2510.0 ~ 2560.0	18M3G7D	-	-	18M3W7D	-	-

LTE Band 66		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1710.7 ~ 1779.3	1M10G7D	-	-	1M09W7D	-	-
3	1711.5 ~ 1778.5	2M72G7D	-	-	2M73W7D	-	-
5	1712.5 ~ 1777.5	4M49G7D	-	-	4M51W7D	-	-
10	1715.0 ~ 1775.0	9M01G7D	-	-	9M05W7D	-	-
15	1717.5 ~ 1772.5	13M4G7D	-	0.1972	13M4W7D	-	0.1449
20	1720.0 ~ 1770.0	18M3G7D	-	-	18M4W7D	-	-

1.8 Testing Location

Test Site	SPORTON INTERNATIONAL (KUNSHAN) INC.		
Test Site Location	No. 3-2, PingXiang Road, Kunshan, Jiangsu Province, P. R. China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958		
Test Site No.	**Sporton Site No.**		**FCC Registration No.**
	TH01-KS	03CH03-KS	306251

1.9 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- 47 CFR Part 2, 22(H), 24(E), 27(L), 27(M), 27(F), 27(H)
- ANSI / TIA / EIA-603-D-2010
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

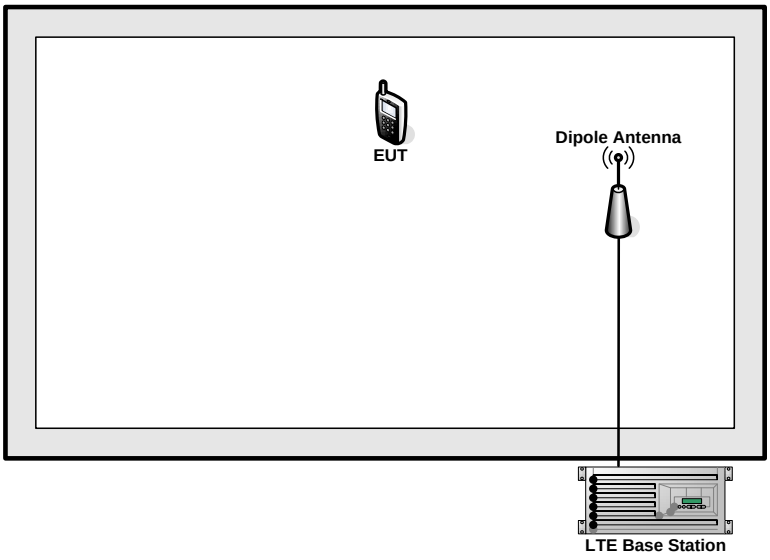
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

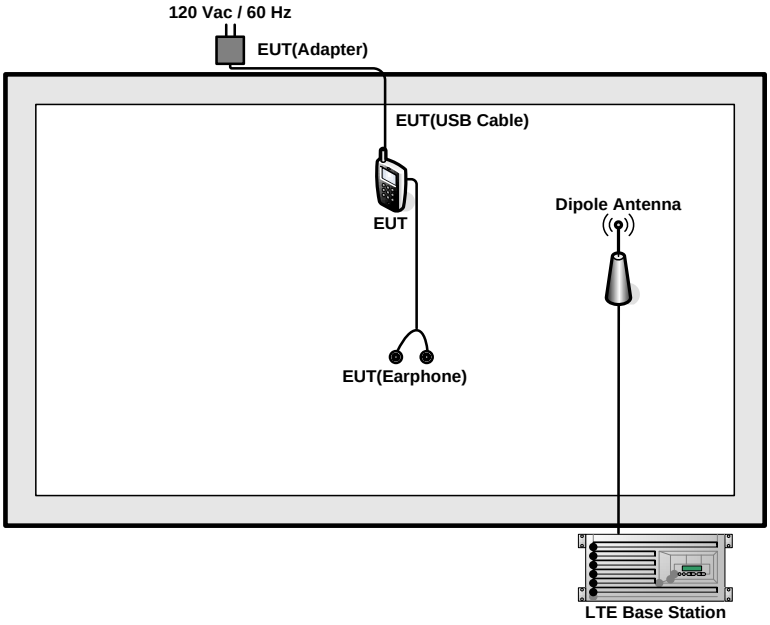
Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	4	v	v	v	v	v	v	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	4	v	v	v	v	v	v	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v		v	v		v
	66	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	4	v	v	v	v	v	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v
E.I.R.P.	4						v	v	v	v			v	v	v
	7	-	-			v		v	v	v			v	v	v
	66					v		v	v	v			v	v	v
Radiated Spurious Emission	4	v						v		v				v	
	7	-	-		v			v		v				v	
	66			v				v		v				v	
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System

LTE Band 7/66



LTE Band 4



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 5.3 dB.

Example :

Offset(dB) = RF cable loss(dB).

= 5.3 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 4 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3

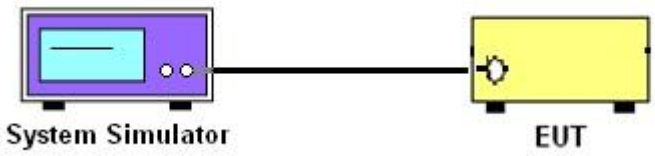
3 Conducted Test Items

3.1 Measuring Instruments

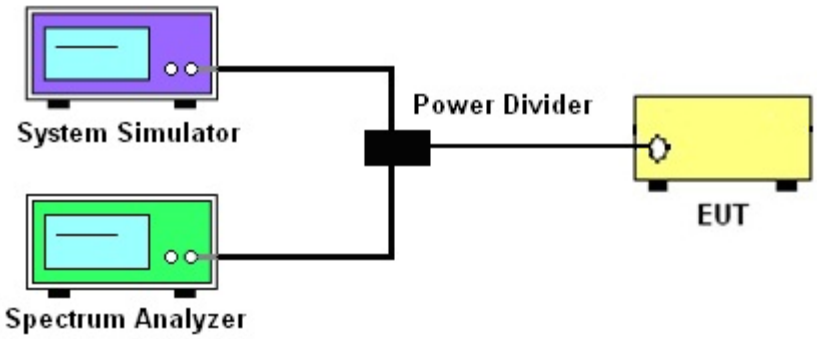
See list of measuring instruments of this test report.

3.2 Test Setup

3.2.1 Conducted Output Power



3.2.2 Occupied Bandwidth ,Conducted Band-Edge and Conducted Spurious Emission



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power and EIRP

3.4.1 Description of the Conducted Output Power Measurement and EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 7

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

3.5 Occupied Bandwidth

3.5.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 4.2.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
   (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.6 Conducted Band Edge

3.6.1 Description of Conducted Band Edge Measurement

27.53 (h)

For operations in the 1710 – 1755 MHz and 1710-1780 MHz band, the FCC limit is 43 + $10\log_{10}$(P[Watts]) dB below the transmitter power P(Watts) in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53(m)(4)

For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

3.6.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

   Example:

   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)

   = P(W)- [43 + 10log(P)] (dB)

   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
9. For LTE Band 7, the other 40 dB, and 55 dB have additionally applied same calculation above.

3.7 Conducted Spurious Emission

3.7.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

3.7.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
11. For Band 7,
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55+ 10log(P)] (dB)
    = [30+ 10log(P)] (dBm) - [55+ 10log(P)] (dB)
    = -25dBm.

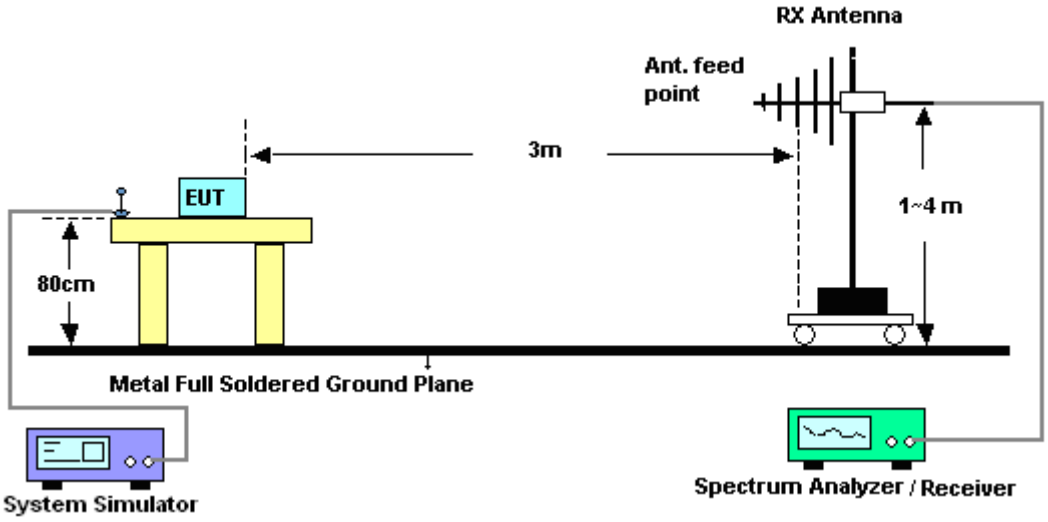
4 Radiated Test Items

4.1 Measuring Instruments

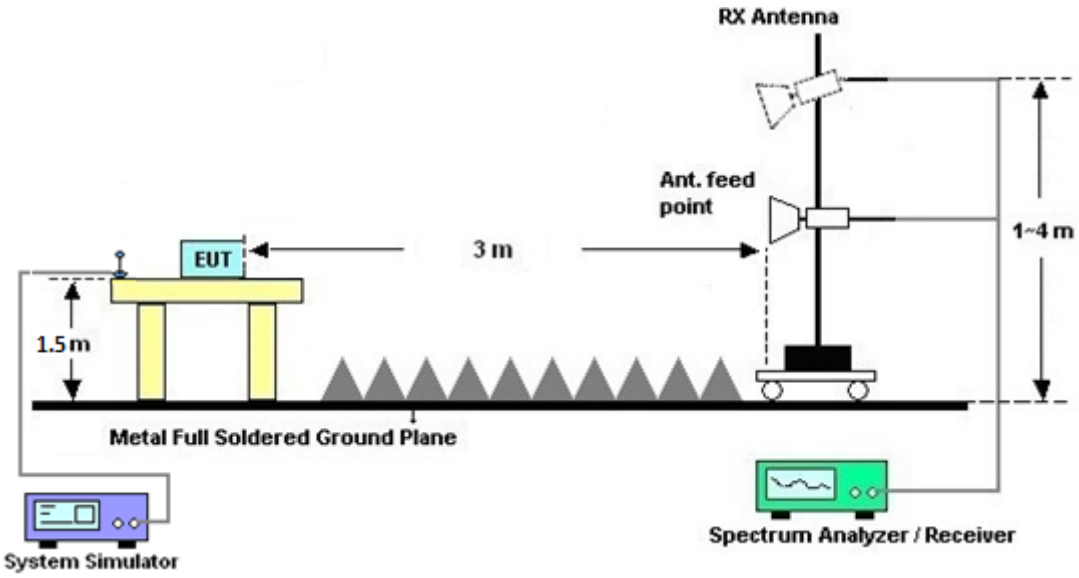
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-D-2010. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB.

For Band 7,

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 55 + 10 log (P) dB.

4.4.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-D-2010 Section 2.2.12.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
12. For Band 7, 38, 41:
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
    ERP (dBm) = EIRP - 2.15

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 09, 2016	Dec. 20, 2016~ Dec. 27, 2016	Aug. 08, 2017	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44GHz	Apr. 22, 2016	Dec. 27, 2016	Apr. 21, 2017	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	25MHz~2GHz	Apr. 16, 2016	Dec. 27, 2016	Apr. 15, 2017	Radiation (03CH03-KS)
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1356	1GHz~18GHz	Apr. 16, 2016	Dec. 27, 2016	Apr. 15, 2017	Radiation (03CH03-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Mar. 03, 2016	Dec. 27, 2016	Mar. 02, 2017	Radiation (03CH03-KS)
Amplifier	SONOMA	310N	187289	9kHz~1GHz	Aug. 09, 2016	Dec. 27, 2016	Aug. 08, 2017	Radiation (03CH03-KS)
Amplifier	MITEQ	TTA1840-35 -HG	1887435	18GHz~40GHz	Jan. 20, 2016	Dec. 27, 2016	Jan. 19, 2017	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 13, 2016	Dec. 27, 2016	Oct. 12, 2017	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Dec. 27, 2016	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Dec. 27, 2016	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Dec. 27, 2016	NCR	Radiation (03CH03-KS)

NCR: No Calibration Required

6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.8 dB**

Uncertainty of Radiated Emission Measurement (1GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.2dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.85	22.95	23.00
20	1	49		23.39	23.06	23.45
20	1	99		22.76	23.03	22.90
20	50	0		22.28	22.19	22.44
20	50	24		22.23	22.11	22.42
20	50	50		22.22	22.08	22.38
20	100	0		22.25	22.08	22.36
20	1	0	16-QAM	21.83	21.88	21.91
20	1	49		21.82	21.86	21.92
20	1	99		21.87	21.87	21.89
20	50	0		21.27	21.23	21.42
20	50	24		21.14	21.13	21.38
20	50	50		21.18	21.09	21.30
20	100	0		21.19	21.08	21.37
15	1	0	QPSK	23.17	22.80	23.23
15	1	37		23.32	23.24	23.33
15	1	74		23.07	23.08	22.96
15	36	0		22.23	22.15	22.45
15	36	20		22.29	22.08	22.43
15	36	39		22.23	22.13	22.36
15	75	0		22.20	22.16	22.35
15	1	0	16-QAM	21.88	21.86	21.90
15	1	37		21.86	21.79	21.91
15	1	74		21.89	21.83	21.86
15	36	0		21.17	21.06	21.38
15	36	20		21.16	21.08	21.31
15	36	39		21.18	21.05	21.37
15	75	0		21.30	21.09	21.36

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.96	22.81	23.10
10	1	25		23.35	23.26	23.36
10	1	49		22.74	23.11	22.98
10	25	0		22.23	22.08	22.41
10	25	12		22.25	22.12	22.43
10	25	25		22.21	22.07	22.36
10	50	0		22.30	22.18	22.41
10	1	0	16-QAM	21.90	21.90	21.91
10	1	25		21.91	21.90	21.84
10	1	49		21.91	21.84	21.87
10	25	0		21.25	21.10	21.39
10	25	12		21.19	21.11	21.32
10	25	25		21.50	21.08	21.36
10	50	0		21.24	21.11	21.51
5	1	0	QPSK	22.89	22.79	23.15
5	1	12		23.39	23.24	23.41
5	1	24		22.81	22.91	23.03
5	12	0		22.26	22.08	22.36
5	12	7		22.19	22.09	22.32
5	12	13		22.22	22.13	22.37
5	25	0		22.22	22.09	22.34
5	1	0	16-QAM	21.84	21.81	21.91
5	1	12		21.87	21.76	21.90
5	1	24		21.84	21.79	21.89
5	12	0		21.12	21.07	21.29
5	12	7		21.30	21.25	21.28
5	12	13		21.34	21.25	21.34
5	25	0		21.28	21.28	21.48

LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.79	22.87	23.01
3	1	8		22.98	22.92	22.90
3	1	14		23.00	22.63	22.69
3	8	0		22.15	22.32	22.30
3	8	4		22.15	22.12	22.95
3	8	7		22.19	22.04	22.27
3	15	0		22.17	22.07	22.19
3	1	0	16-QAM	21.87	21.90	21.90
3	1	8		21.89	21.78	21.91
3	1	14		21.86	21.84	21.82
3	8	0		21.25	21.20	21.25
3	8	4		21.24	21.10	21.09
3	8	7		21.15	21.20	21.18
3	15	0		21.37	21.13	21.10
1.4	1	0	QPSK	23.12	22.99	23.09
1.4	1	3		23.13	23.08	23.13
1.4	1	5		23.06	23.05	23.10
1.4	3	0		23.09	23.04	23.16
1.4	3	1		23.11	23.13	23.30
1.4	3	3		23.10	23.02	23.10
1.4	6	0		22.13	22.08	22.17
1.4	1	0	16-QAM	21.79	21.70	21.79
1.4	1	3		21.69	21.68	21.78
1.4	1	5		21.47	21.72	21.75
1.4	3	0		21.80	21.82	21.80
1.4	3	1		21.86	21.88	21.91
1.4	3	3		21.86	21.89	21.90
1.4	6	0		20.88	20.93	21.03

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.30	22.03	22.18
20	1	49		23.01	23.02	23.15
20	1	99		22.61	22.62	22.31
20	50	0		21.77	22.01	21.56
20	50	24		21.88	21.89	21.91
20	50	50		21.79	21.91	21.63
20	100	0		21.77	21.78	21.81
20	1	0	16-QAM	21.60	21.59	21.38
20	1	49		21.74	21.58	21.46
20	1	99		21.53	21.43	21.51
20	50	0		21.84	21.85	21.64
20	50	24		21.92	21.83	21.64
20	50	50		21.86	21.73	21.64
20	100	0		21.81	21.77	21.63
15	1	0	QPSK	22.58	22.79	22.55
15	1	37		22.85	23.16	22.67
15	1	74		22.76	22.48	22.58
15	36	0		21.71	21.77	21.59
15	36	20		21.74	21.75	21.63
15	36	39		21.92	21.67	21.69
15	75	0		21.79	21.84	21.60
15	1	0	16-QAM	21.64	21.50	21.31
15	1	37		21.56	21.51	21.43
15	1	74		21.57	21.46	21.35
15	36	0		21.73	21.72	21.61
15	36	20		21.74	21.76	21.58
15	36	39		21.86	21.68	21.69
15	75	0		21.75	21.84	21.61

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.20	22.40	22.22
10	1	25		22.68	22.93	22.87
10	1	49		22.41	22.31	22.67
10	25	0		21.66	21.82	21.51
10	25	12		21.60	21.83	21.64
10	25	25		21.71	21.78	21.69
10	50	0		21.65	21.79	21.55
10	1	0	16-QAM	21.49	21.55	21.20
10	1	25		21.30	21.61	21.39
10	1	49		21.60	21.48	21.42
10	25	0		20.66	20.84	20.76
10	25	12		20.68	20.79	20.70
10	25	25		20.79	20.82	20.64
10	50	0		20.75	20.82	20.61
5	1	0	QPSK	22.38	22.48	22.07
5	1	12		22.62	22.96	22.83
5	1	24		22.14	22.23	22.25
5	12	0		21.67	21.67	21.63
5	12	7		21.76	21.70	21.69
5	12	13		21.54	21.73	21.61
5	25	0		21.69	21.76	21.58
5	1	0	16-QAM	21.42	21.50	21.34
5	1	12		21.22	21.36	21.33
5	1	24		21.31	21.46	21.37
5	12	0		20.62	20.66	20.60
5	12	7		20.66	20.76	20.73
5	12	13		20.45	20.55	20.66
5	25	0		20.66	20.66	20.65

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	22.72	22.74	22.52
20	1	49		23.04	22.21	23.19
20	1	99		22.88	23.01	22.79
20	50	0		22.10	22.12	22.03
20	50	24		22.05	22.09	21.86
20	50	50		21.97	22.01	21.75
20	100	0		22.00	22.03	21.86
20	1	0	16-QAM	21.82	21.95	21.81
20	1	49		21.82	21.92	21.63
20	1	99		21.66	21.71	21.50
20	50	0		21.95	21.93	21.86
20	50	24		21.93	21.94	21.76
20	50	50		21.91	21.94	21.70
20	100	0		21.93	21.90	21.79
15	1	0	QPSK	22.73	22.93	22.74
15	1	37		23.32	23.22	23.05
15	1	74		22.91	22.66	22.68
15	36	0		22.02	22.12	21.88
15	36	20		22.04	22.03	21.86
15	36	39		21.95	22.03	21.81
15	75	0		22.01	22.08	21.85
15	1	0	16-QAM	21.89	21.92	21.75
15	1	37		21.86	21.82	21.62
15	1	74		21.80	21.78	21.52
15	36	0		21.93	21.93	21.88
15	36	20		21.92	21.94	21.80
15	36	39		21.93	21.98	21.76
15	75	0		21.94	21.95	21.80

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.74	22.75	22.47
10	1	25		23.31	23.01	22.75
10	1	49		22.80	22.71	22.42
10	25	0		22.04	22.12	21.87
10	25	12		22.03	22.11	21.84
10	25	25		21.98	21.99	21.72
10	50	0		21.98	21.98	21.76
10	1	0	16-QAM	21.71	21.83	21.53
10	1	25		21.87	21.82	21.58
10	1	49		21.80	21.49	21.44
10	25	0		20.98	20.94	20.77
10	25	12		21.09	20.96	20.67
10	25	25		21.07	20.94	20.69
10	50	0		20.99	20.93	20.74
5	1	0	QPSK	22.64	23.01	22.71
5	1	12		22.51	22.31	22.88
5	1	24		22.12	22.30	22.50
5	12	0		22.05	22.03	21.91
5	12	7		22.99	22.14	21.92
5	12	13		22.07	22.09	21.90
5	25	0		22.10	22.09	21.90
5	1	0	16-QAM	21.87	21.85	21.59
5	1	12		21.87	21.76	21.78
5	1	24		21.86	21.79	21.51
5	12	0		21.12	21.04	20.85
5	12	7		21.11	21.00	20.80
5	12	13		21.06	20.93	20.68
5	25	0		21.06	20.95	20.87

LTE Band 66 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	22.08	22.54	22.91
3	1	8		22.39	22.50	22.74
3	1	14		22.21	22.51	22.72
3	8	0		21.39	21.65	21.96
3	8	4		21.42	21.66	21.99
3	8	7		21.38	21.71	21.94
3	15	0		21.48	21.69	22.01
3	1	0	16-QAM	21.16	21.34	21.48
3	1	8		21.06	21.35	21.57
3	1	14		21.65	21.39	21.65
3	8	0		20.46	20.77	20.88
3	8	4		20.62	20.68	20.77
3	8	7		20.50	20.85	20.83
3	15	0		20.47	20.70	20.74
1.4	1	0	QPSK	22.75	22.98	22.64
1.4	1	3		23.01	23.09	22.76
1.4	1	5		23.05	23.06	22.70
1.4	3	0		23.14	23.25	22.93
1.4	3	1		23.27	23.23	22.91
1.4	3	3		23.09	23.05	22.84
1.4	6	0		22.02	22.04	21.79
1.4	1	0	16-QAM	21.58	21.86	21.70
1.4	1	3		21.80	21.90	21.53
1.4	1	5		21.73	21.72	21.54
1.4	3	0		22.02	22.09	21.64
1.4	3	1		22.04	22.17	21.87
1.4	3	3		22.08	22.37	21.66
1.4	6	0		20.96	20.94	20.68

EIRP

LTE Band 4 (G_T - L_C = -0.37 dB) QPSK			
Bandwidth	20M		
Channel	20050	20175	20300
	(Low)	(Mid)	(High)
Frequency (MHz)	1720	1732.5	1745
Conducted Power (dBm)	23.39	23.06	23.45
Conducted Power (Watts)	0.2183	0.2023	0.2213
EIRP(dBm)	23.02	22.69	23.08
EIRP(Watts)	0.2004	0.1858	0.2032

LTE Band 4 (G_T - L_C = -0.37 dB) 16QAM			
Bandwidth	20M		
Channel	20050	20175	20300
	(Low)	(Mid)	(High)
Frequency (MHz)	1720	1732.5	1745
Conducted Power (dBm)	21.82	21.86	21.92
Conducted Power (Watts)	0.1521	0.1535	0.1556
EIRP(dBm)	21.45	21.49	21.55
EIRP(Watts)	0.1396	0.1409	0.1429

LTE Band 7 (G_T - L_C = 2.51 dB) QPSK			
Bandwidth	5M		
Channel	20825	21100	21375
	(Low)	(Mid)	(High)
Frequency (MHz)	2507.5	2535	2562.5
Conducted Power (dBm)	22.85	23.16	22.67
Conducted Power (Watts)	0.1928	0.2070	0.1849
EIRP(dBm)	25.36	25.67	25.18
EIRP(Watts)	0.3436	0.3690	0.3296

LTE Band 7 (G_T - L_C = 2.51 dB) 16QAM			
Bandwidth	5M		
Channel	20825	21100	21375
	(Low)	(Mid)	(High)
Frequency (MHz)	2507.5	2535	2562.5
Conducted Power (dBm)	21.86	21.68	21.69
Conducted Power (Watts)	0.1535	0.1472	0.1476
EIRP(dBm)	24.37	24.19	24.20
EIRP(Watts)	0.2735	0.2624	0.2630

LTE Band 66 (G_T - L_C = -0.37 dB) QPSK			
Bandwidth	15M		
Channel	132047	132322	132597
	(Low)	(Mid)	(High)
Frequency (MHz)	1717.5	1745	1772.5
Conducted Power (dBm)	23.32	23.22	23.05
Conducted Power (Watts)	0.2148	0.2099	0.2018
EIRP(dBm)	22.95	22.85	22.68
EIRP(Watts)	0.1972	0.1928	0.1854

LTE Band 66 (G_T - L_C = -0.37 dB) 16QAM			
Bandwidth	15M		
Channel	132047	132322	132597
	(Low)	(Mid)	(High)
Frequency (MHz)	1717.5	1745	1772.5
Conducted Power (dBm)	21.93	21.98	21.76
Conducted Power (Watts)	0.1560	0.1578	0.1500
EIRP(dBm)	21.56	21.61	21.39
EIRP(Watts)	0.1432	0.1449	0.1377

26dB Bandwidth

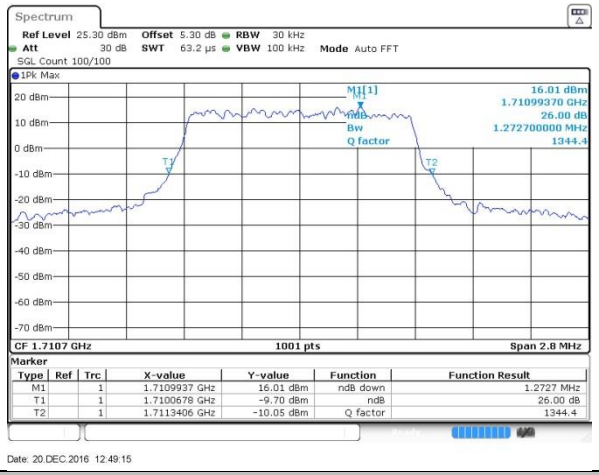
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.273	1.295	2.949	2.997	4.995	4.885	9.93	9.81	14.446	14.476	20.18	20.06
Middle CH	1.278	1.276	3.033	3.039	4.925	4.875	9.73	9.91	14.356	14.356	20.14	20.14
Highest CH	1.284	1.278	3.033	3.009	4.875	4.975	9.79	9.69	14.416	14.655	20.22	20.14

Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.985	4.945	9.73	9.87	14.446	14.625	20.38	20.14
Middle CH	-	-	-	-	4.825	4.885	9.77	9.75	14.176	14.386	20.14	20.26
Highest CH	-	-	-	-	4.895	4.975	9.65	9.73	14.386	14.176	20.1	20.22

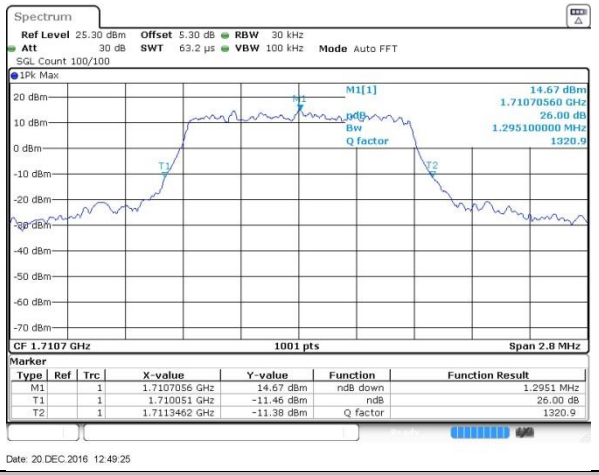
Mode	LTE Band 66 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.284	1.292	2.997	2.985	4.855	4.835	9.77	9.83	14.505	14.476	20.22	20.02
Middle CH	1.278	1.276	2.961	2.961	4.855	4.945	9.67	9.63	14.446	14.146	20.18	19.98
Highest CH	1.281	1.290	3.015	3.027	4.945	4.915	10.05	9.77	14.236	14.565	20.02	19.98

LTE Band 4

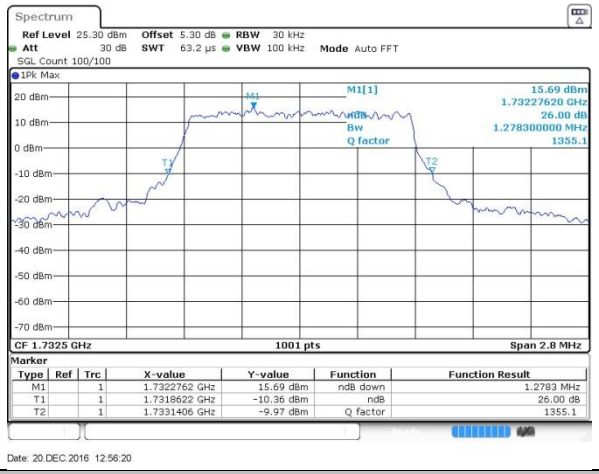
Lowest Channel / 1.4MHz / QPSK



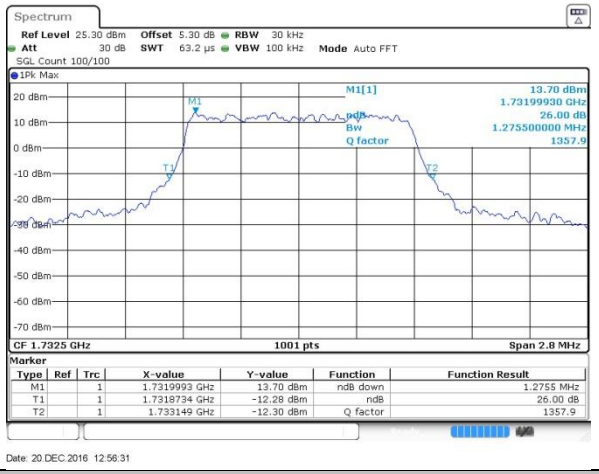
Lowest Channel / 1.4MHz / 16QAM



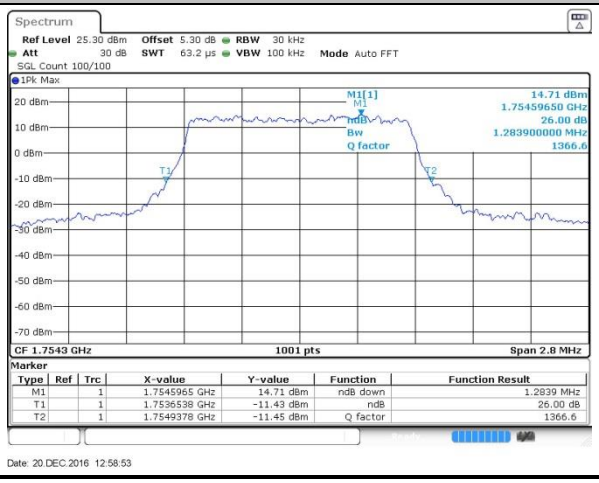
Middle Channel / 1.4MHz / QPSK



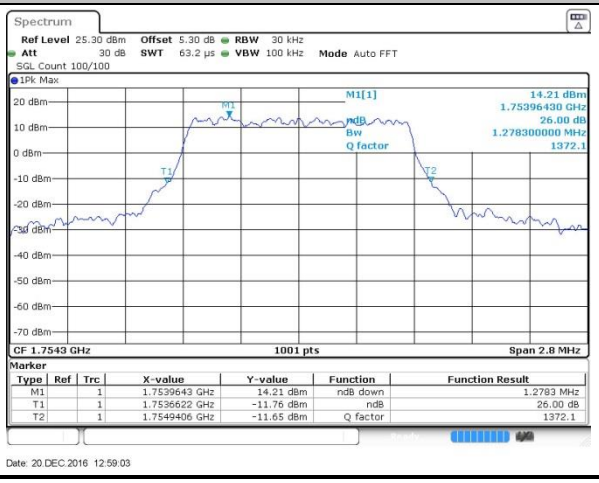
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK

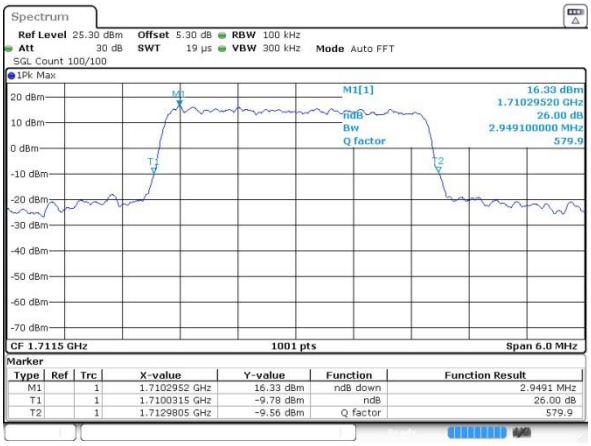


Highest Channel / 1.4MHz / 16QAM

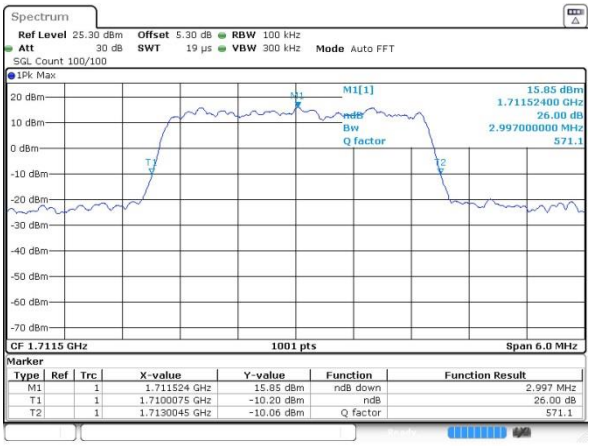


LTE Band 4

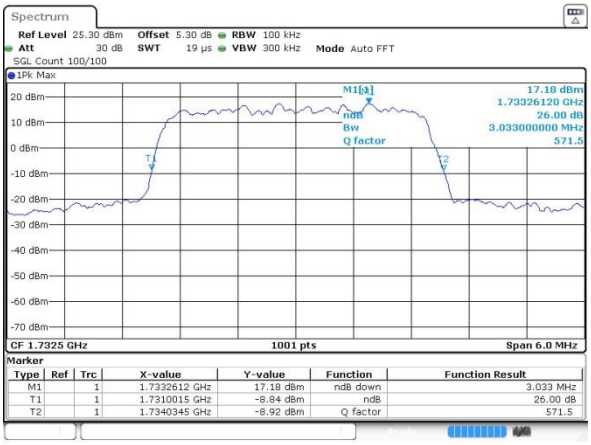
Lowest Channel / 3MHz / QPSK



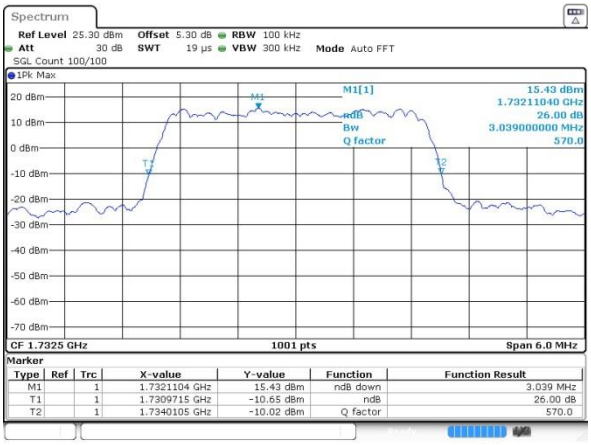
Lowest Channel / 3MHz / 16QAM



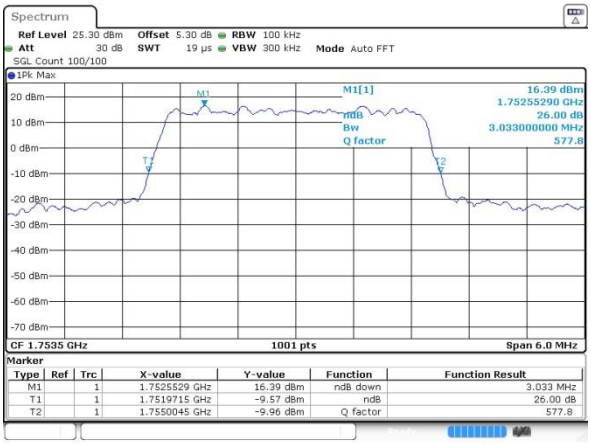
Middle Channel / 3MHz / QPSK



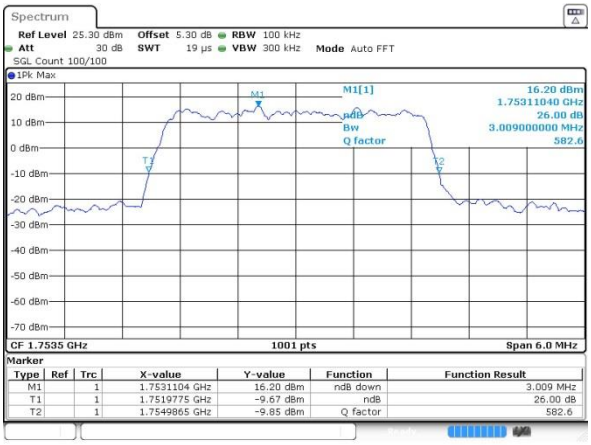
Middle Channel /3MHz / 16QAM



Highest Channel /3MHz / QPSK

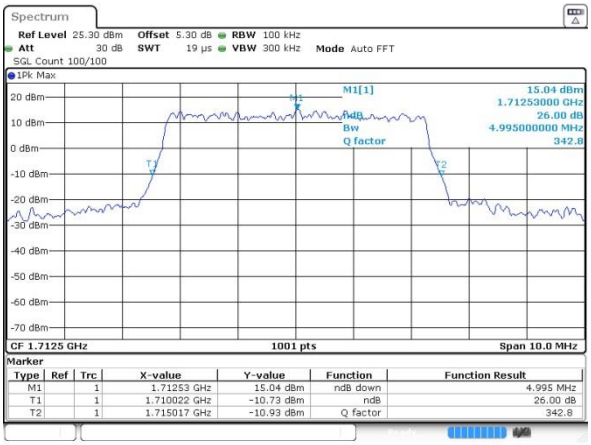


Highest Channel /3MHz / 16QAM

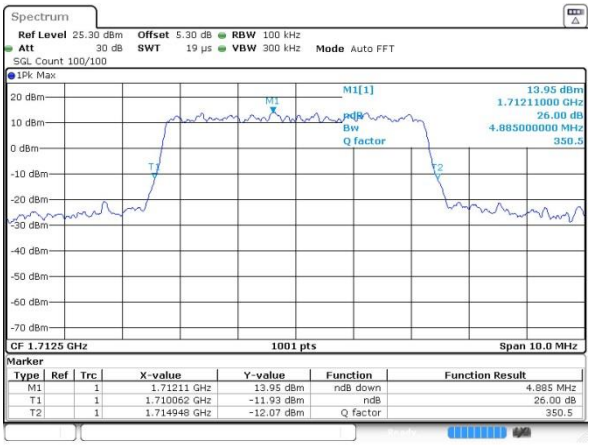


LTE Band 4

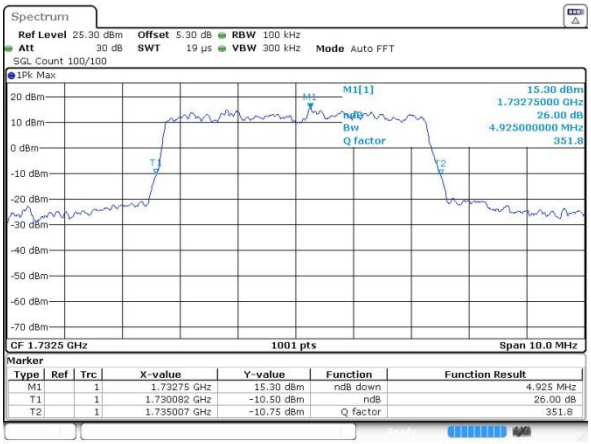
Lowest Channel / 5MHz / QPSK



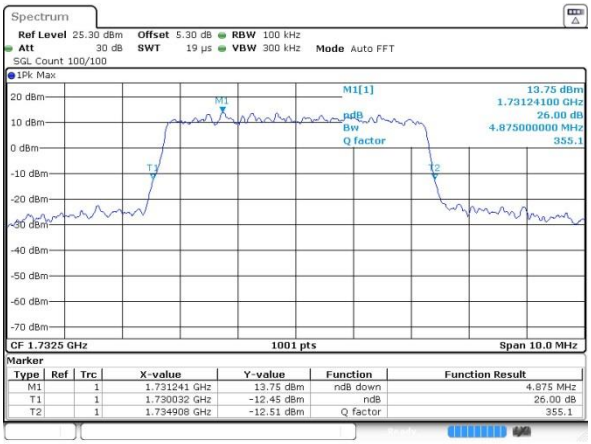
Lowest Channel / 5MHz / 16QAM



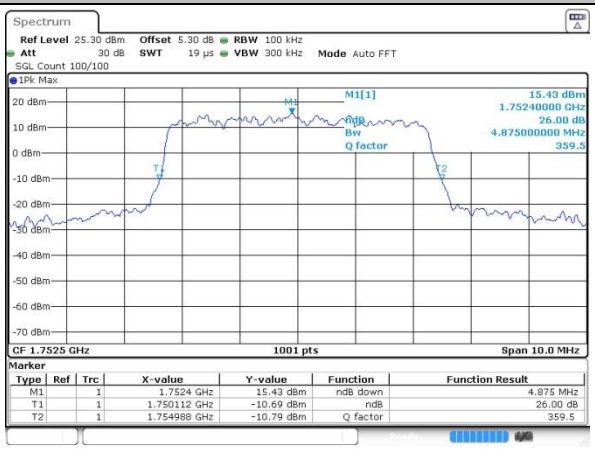
Middle Channel / 5MHz / QPSK



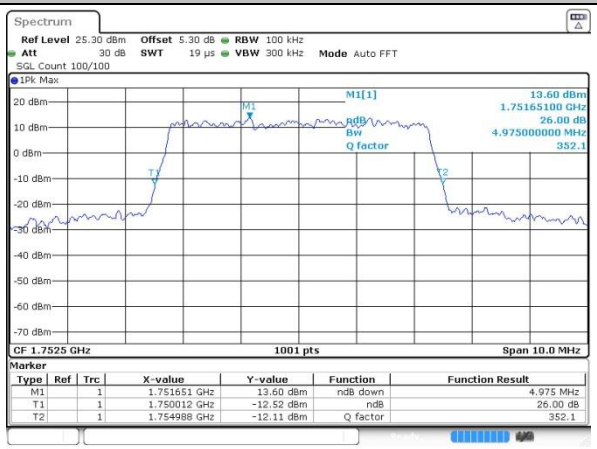
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

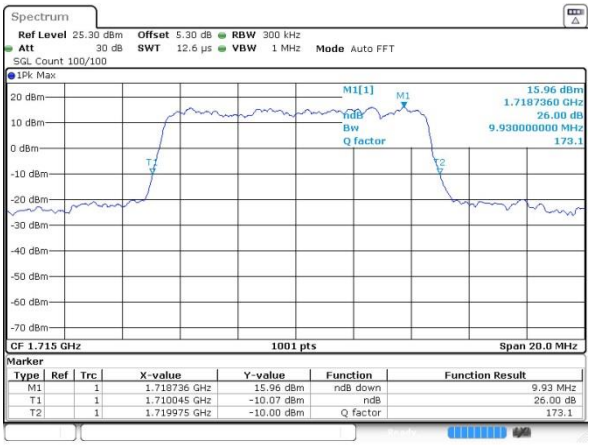


Highest Channel / 5MHz / 16QAM

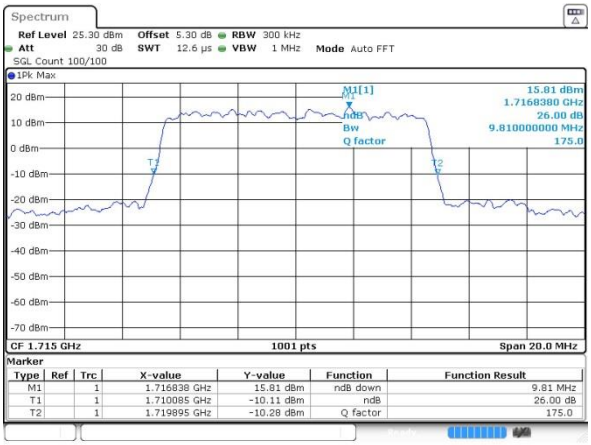


LTE Band 4

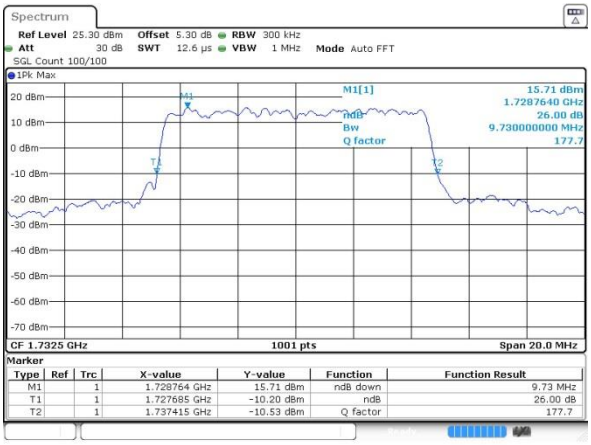
Lowest Channel / 10MHz / QPSK



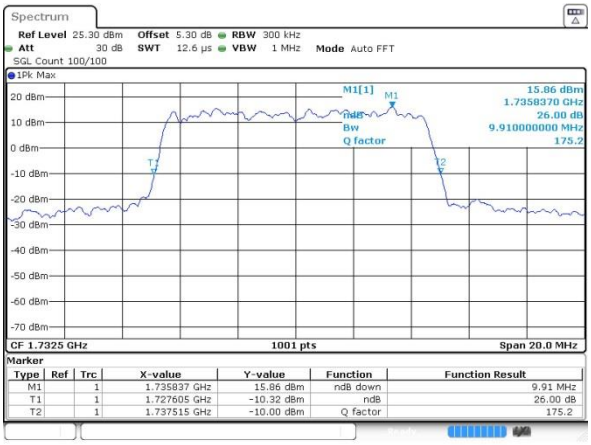
Lowest Channel / 10MHz / 16QAM



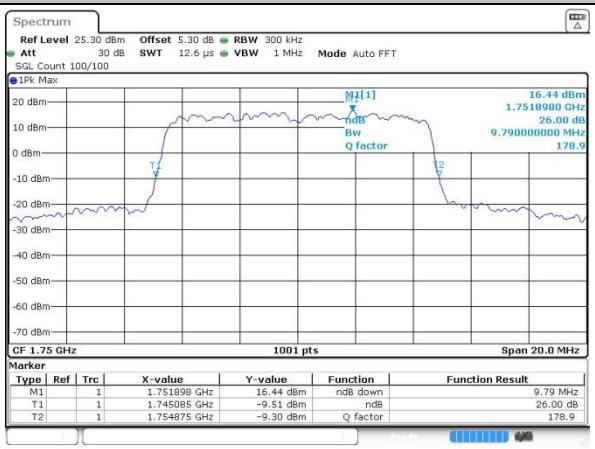
Middle Channel / 10MHz / QPSK



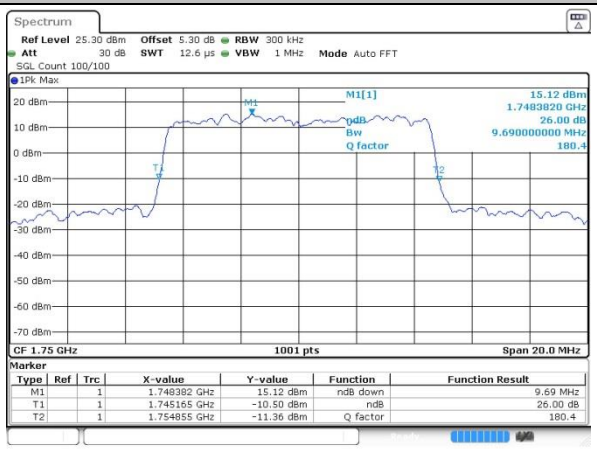
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

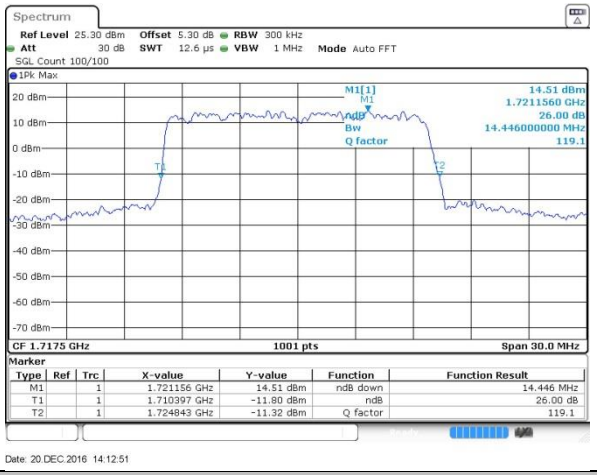


Highest Channel / 10MHz / 16QAM

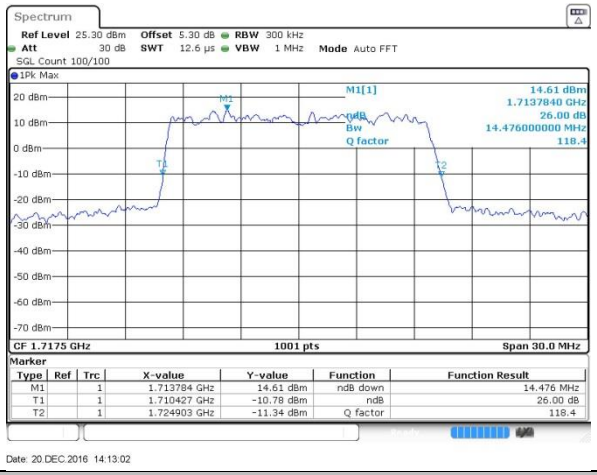


LTE Band 4

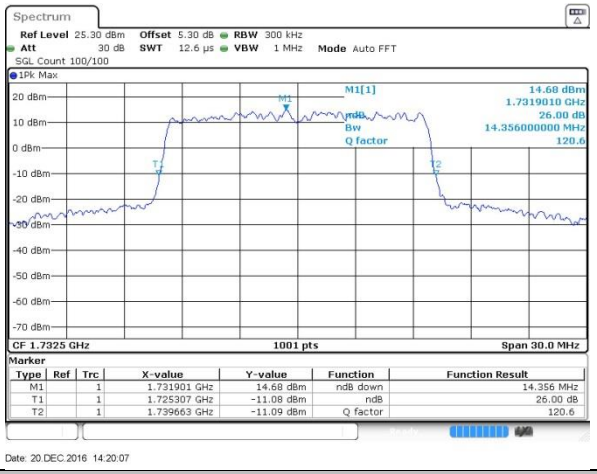
Lowest Channel / 15MHz / QPSK



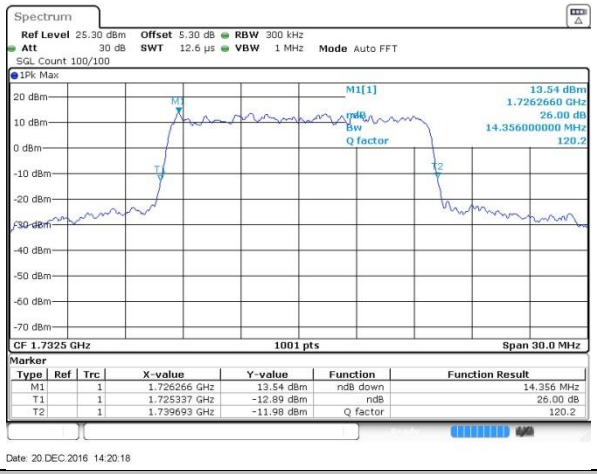
Lowest Channel / 15MHz / 16QAM



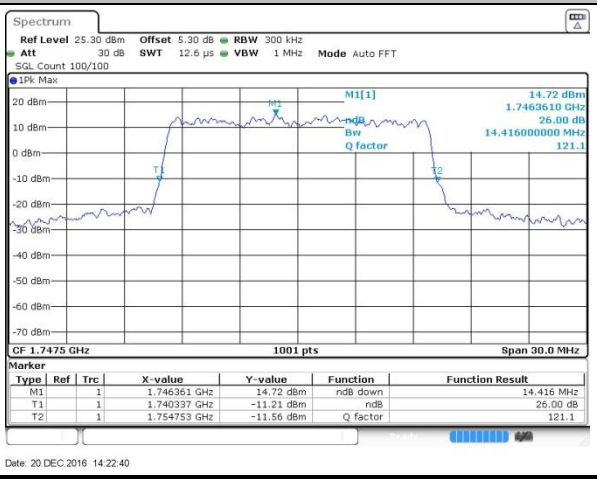
Middle Channel / 15MHz / QPSK



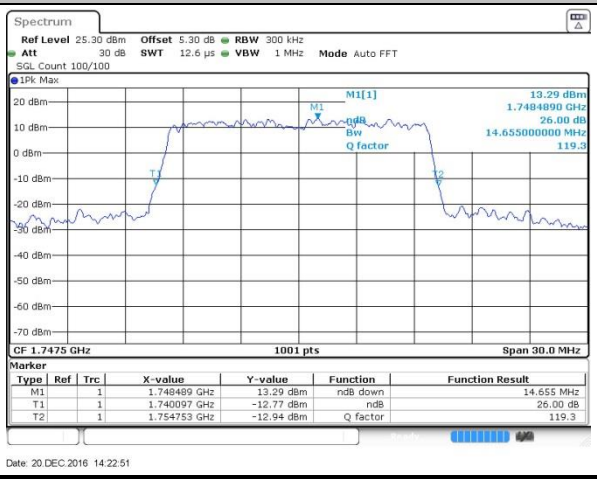
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

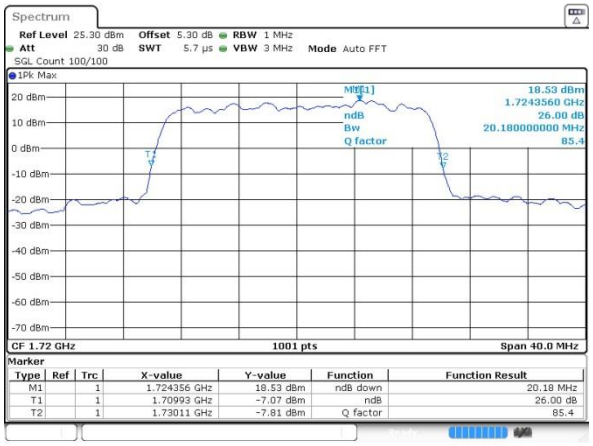


Highest Channel / 15MHz / 16QAM

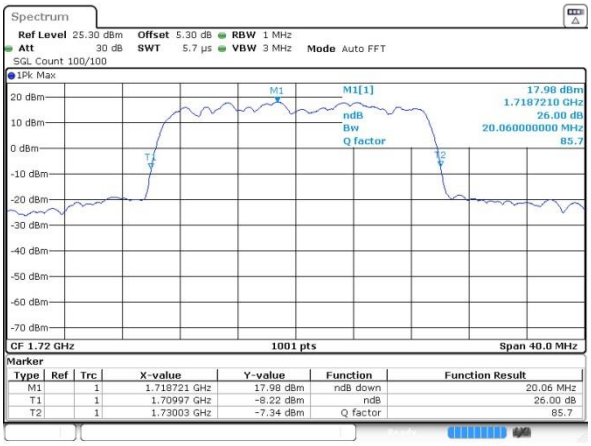


LTE Band 4

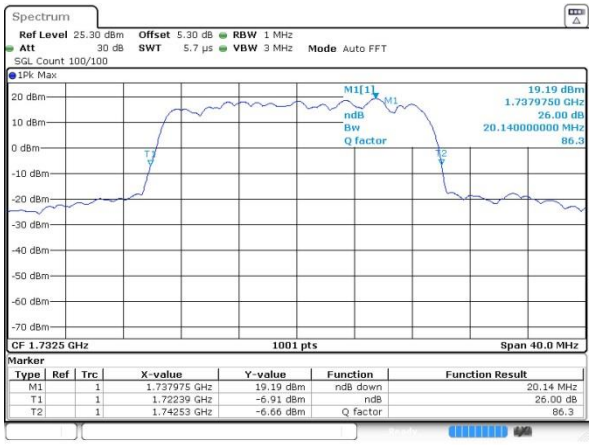
Lowest Channel / 20MHz / QPSK



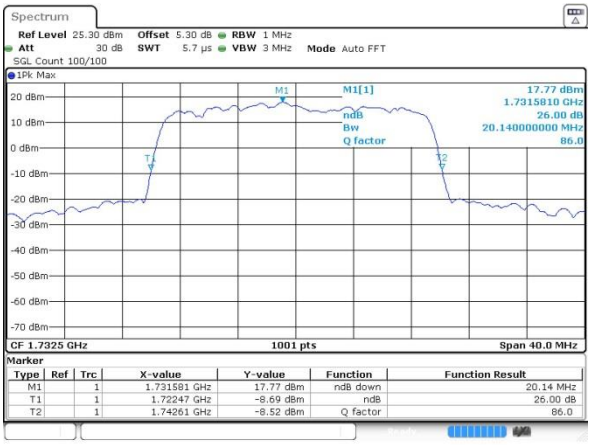
Lowest Channel / 20MHz / 16QAM



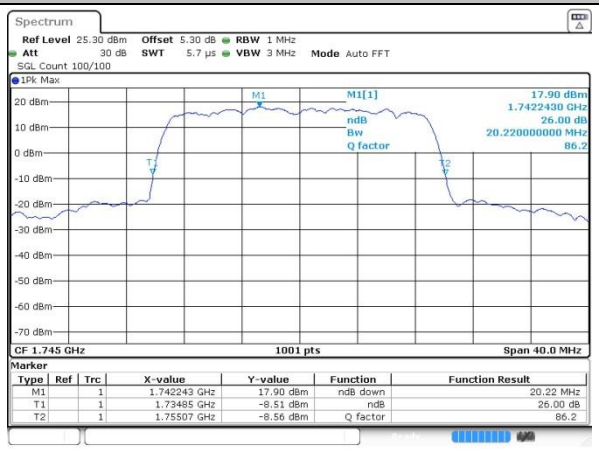
Middle Channel / 20MHz / QPSK



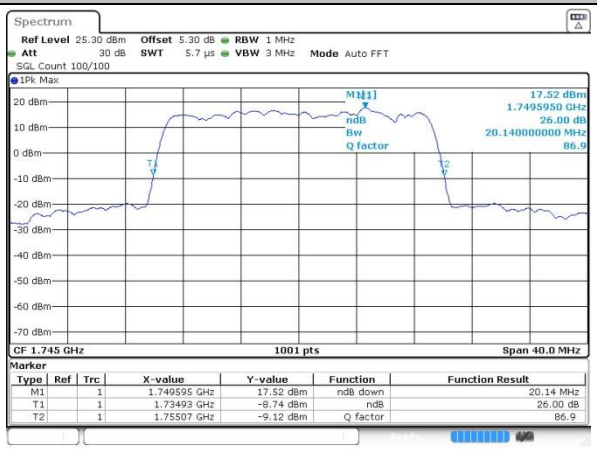
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

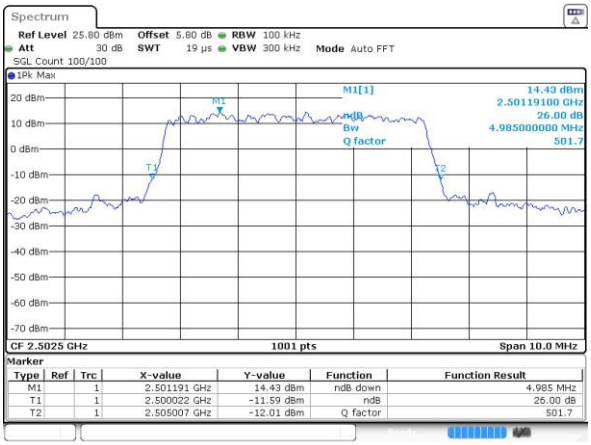


Highest Channel / 20MHz / 16QAM

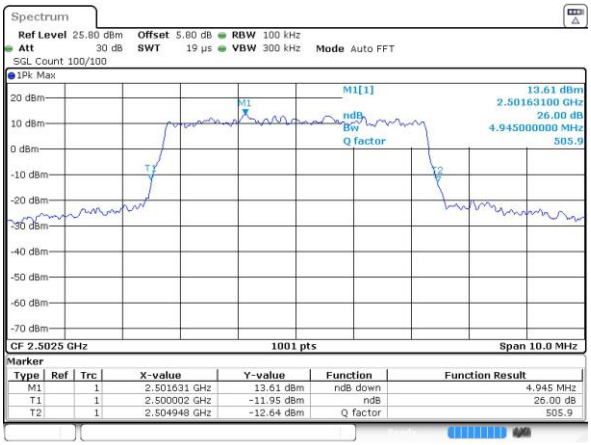


LTE Band 7

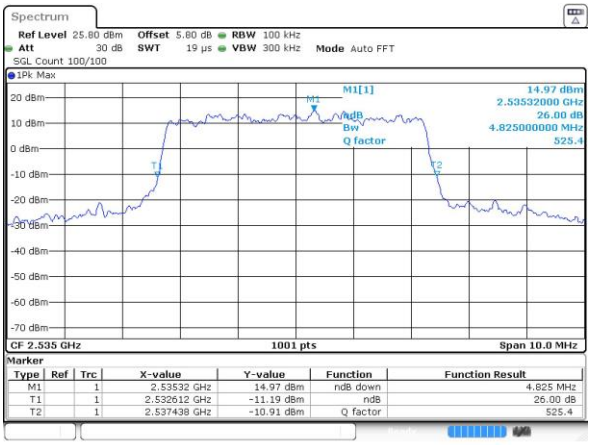
Lowest Channel / 5MHz / QPSK



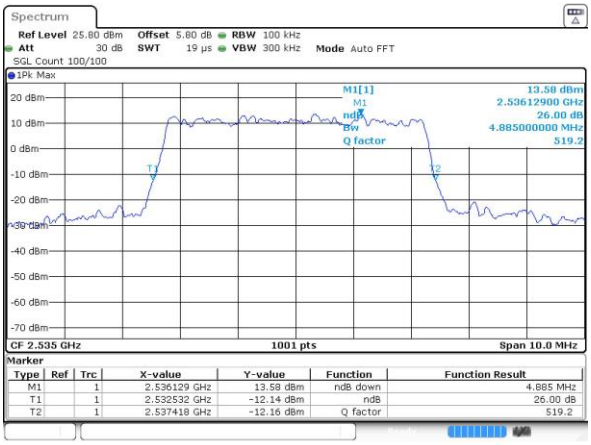
Lowest Channel / 5MHz / 16QAM



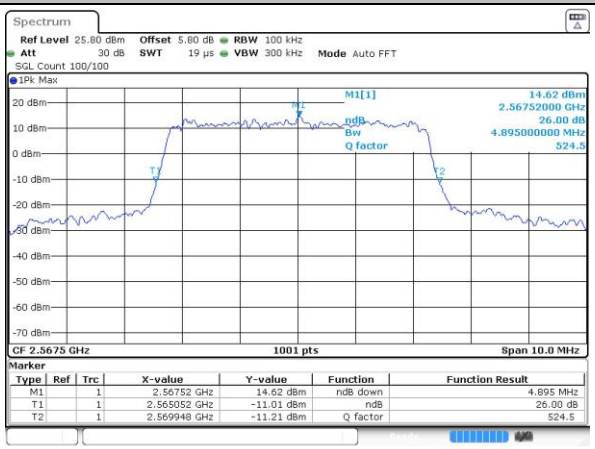
Middle Channel / 5MHz / QPSK



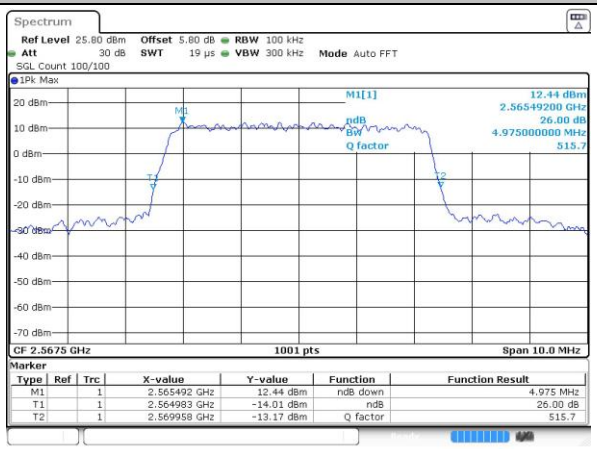
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

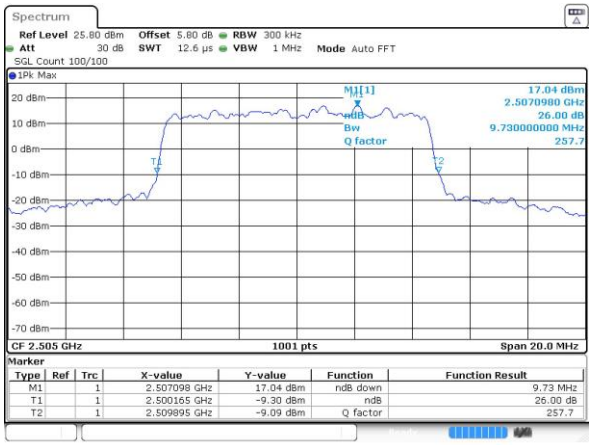


Highest Channel / 5MHz / 16QAM

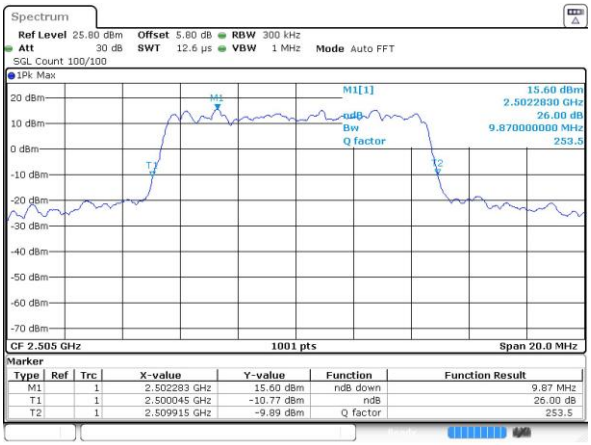


LTE Band 7

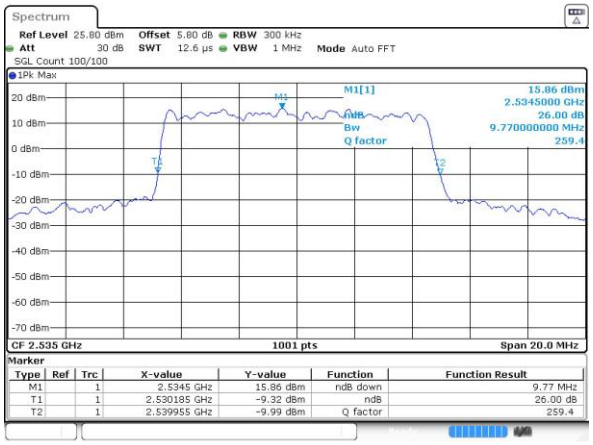
Lowest Channel / 10MHz / QPSK



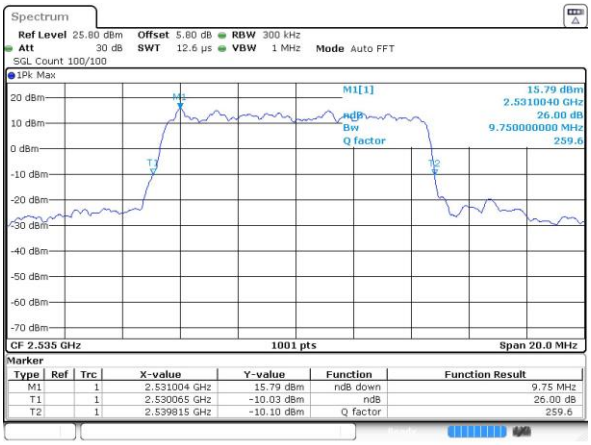
Lowest Channel / 10MHz / 16QAM



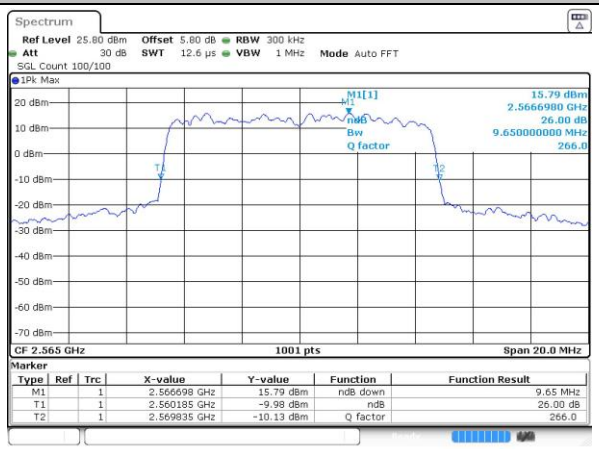
Middle Channel / 10MHz / QPSK



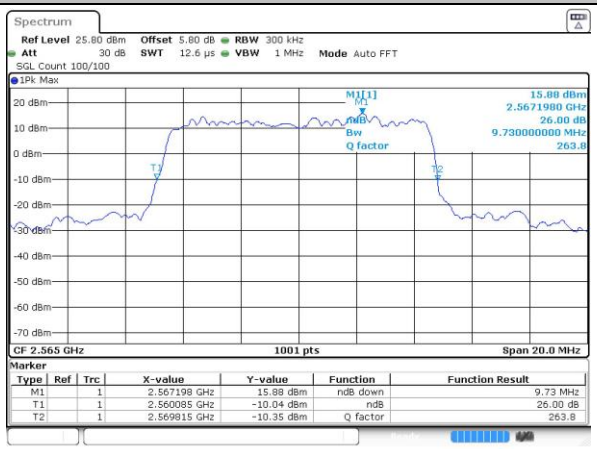
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

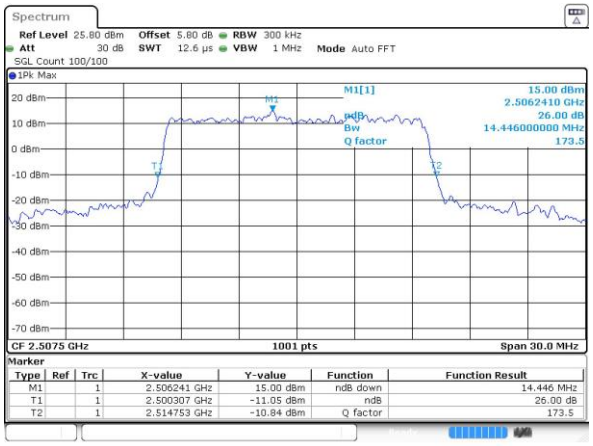


Highest Channel / 10MHz / 16QAM

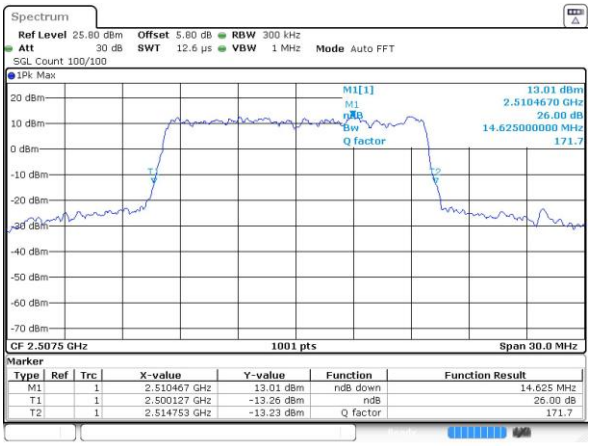


LTE Band 7

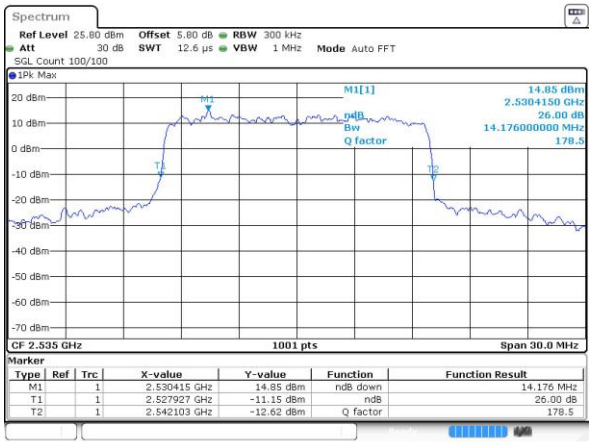
Lowest Channel / 15MHz / QPSK



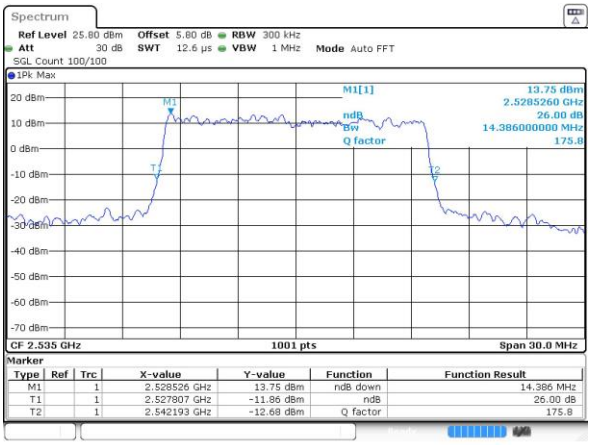
Lowest Channel / 15MHz / 16QAM



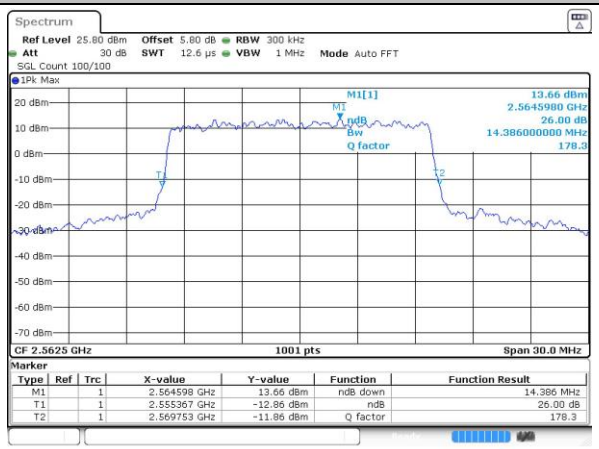
Middle Channel / 15MHz / QPSK



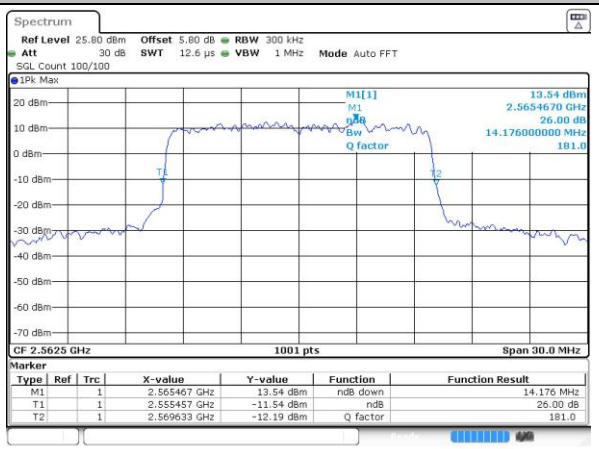
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

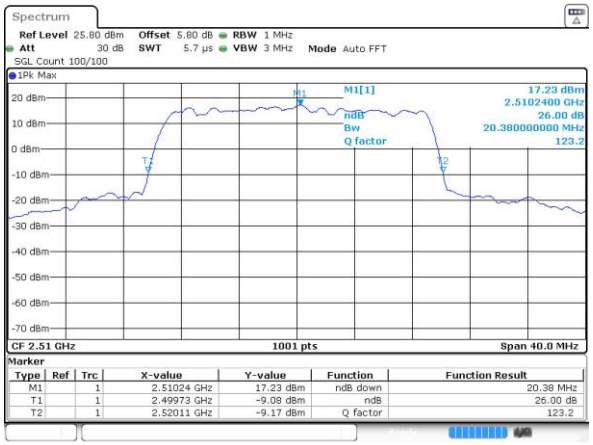


Highest Channel / 15MHz / 16QAM

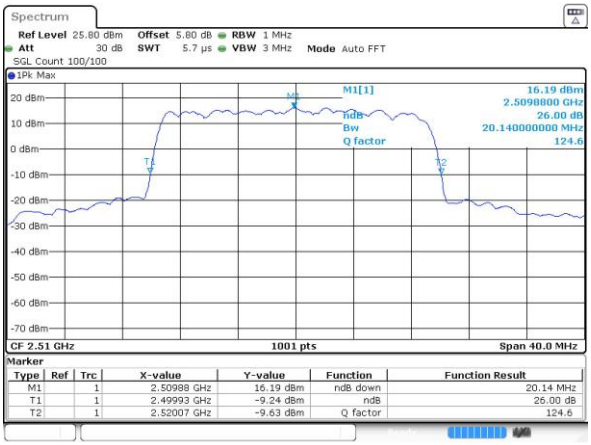


LTE Band 7

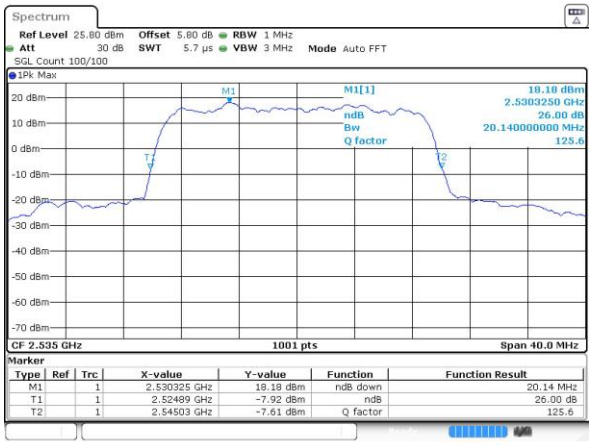
Lowest Channel / 20MHz / QPSK



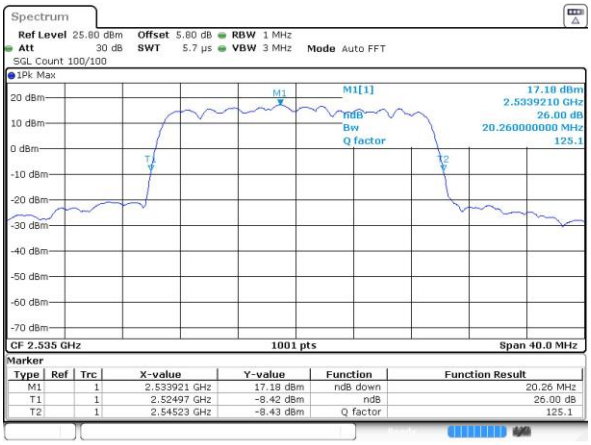
Lowest Channel / 20MHz / 16QAM



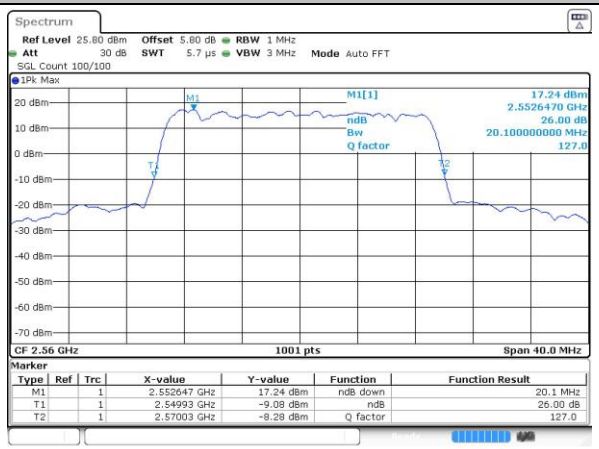
Middle Channel / 20MHz / QPSK



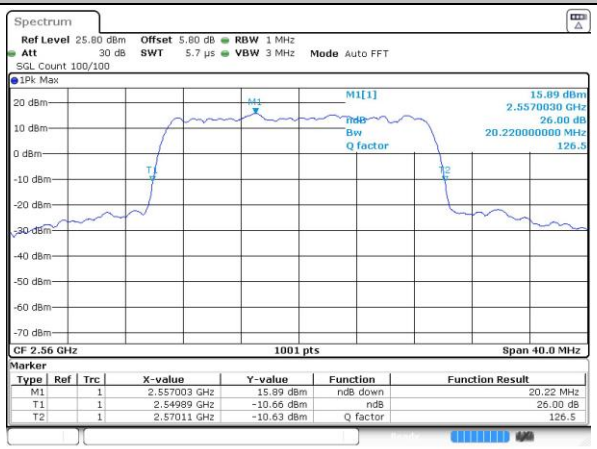
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

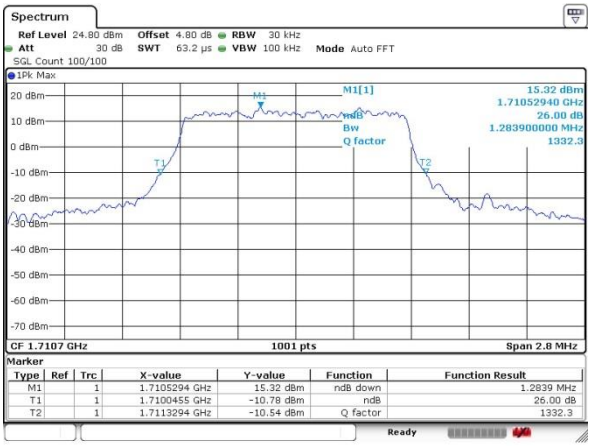


Highest Channel / 20MHz / 16QAM



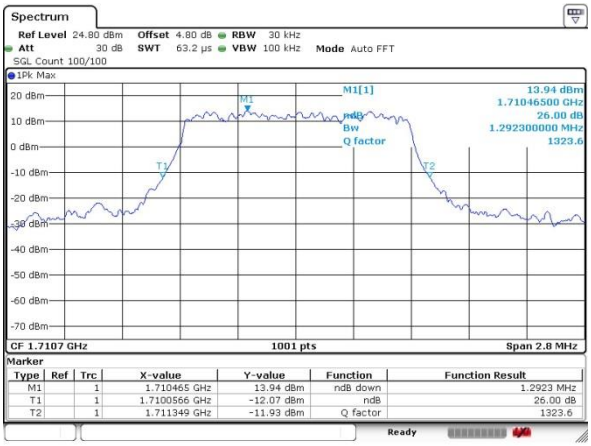
LTE Band 66

Lowest Channel / 1.4MHz / QPSK



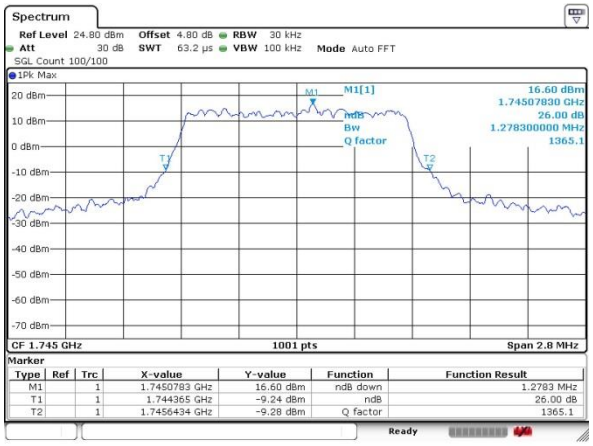
Date: 20.DEC.2016 20:14:26

Lowest Channel / 1.4MHz / 16QAM



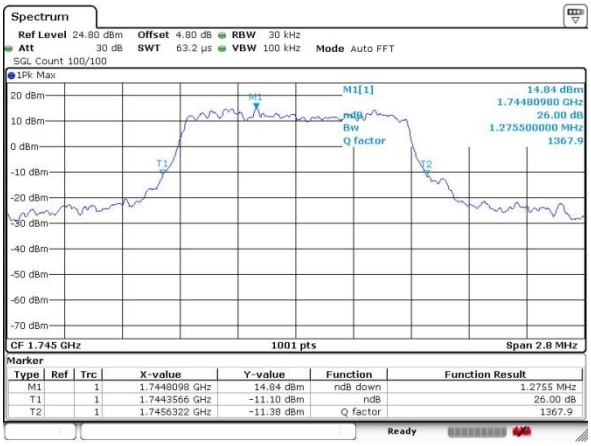
Date: 20.DEC.2016 20:14:58

Middle Channel / 1.4MHz / QPSK



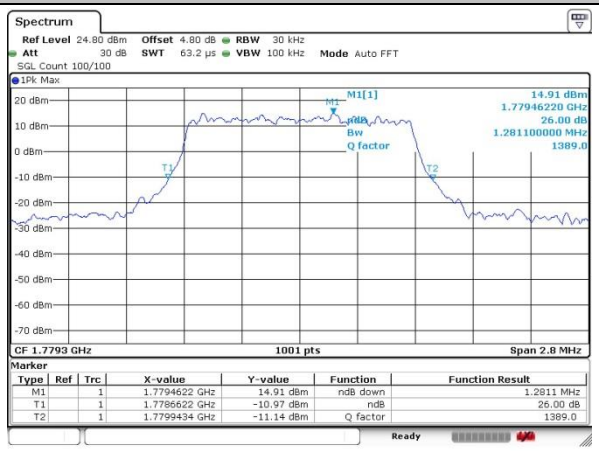
Date: 20.DEC.2016 20:16:51

Middle Channel / 1.4MHz / 16QAM



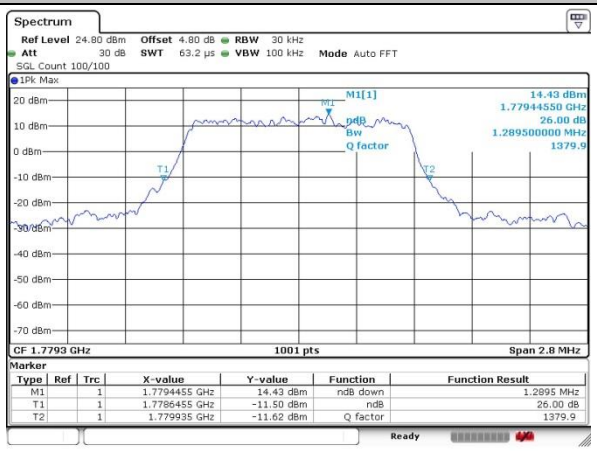
Date: 20.DEC.2016 20:16:03

Highest Channel / 1.4MHz / QPSK



Date: 20.DEC.2016 20:18:36

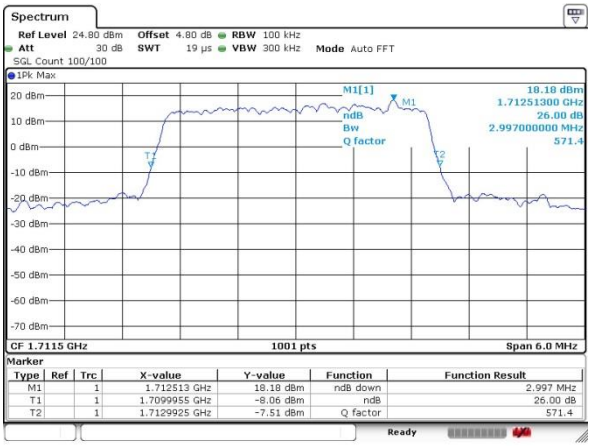
Highest Channel / 1.4MHz / 16QAM



Date: 20.DEC.2016 20:19:11

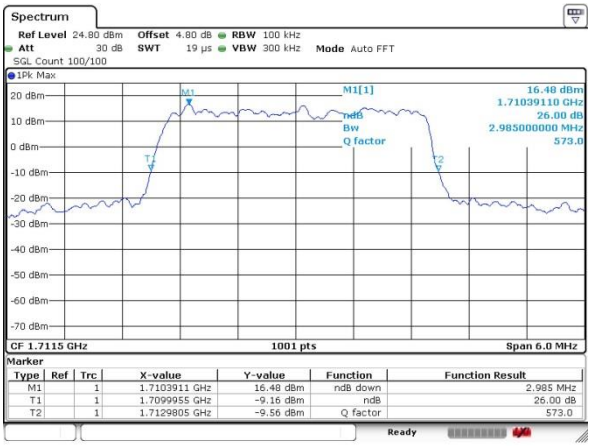
LTE Band 66

Lowest Channel / 3MHz / QPSK



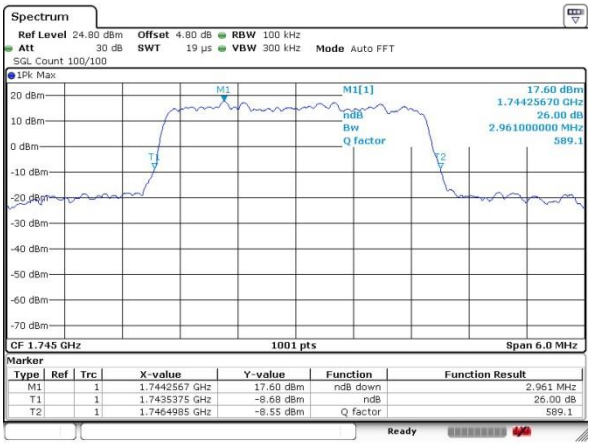
Date: 20.DEC.2016 21:33:57

Lowest Channel / 3MHz / 16QAM



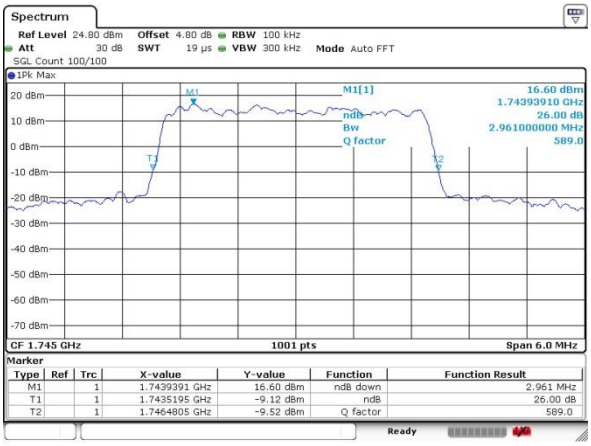
Date: 20.DEC.2016 21:34:57

Middle Channel / 3MHz / QPSK



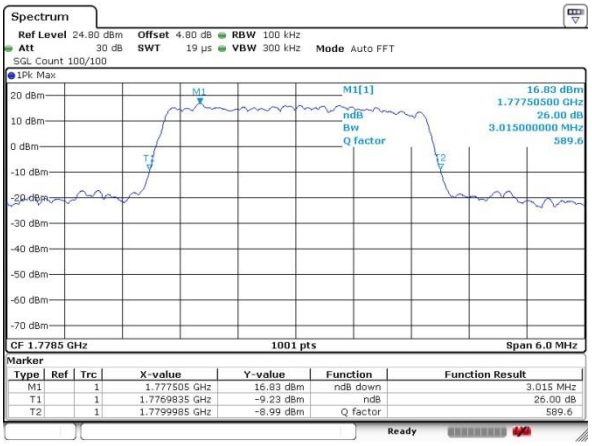
Date: 20.DEC.2016 21:36:21

Middle Channel /3MHz / 16QAM



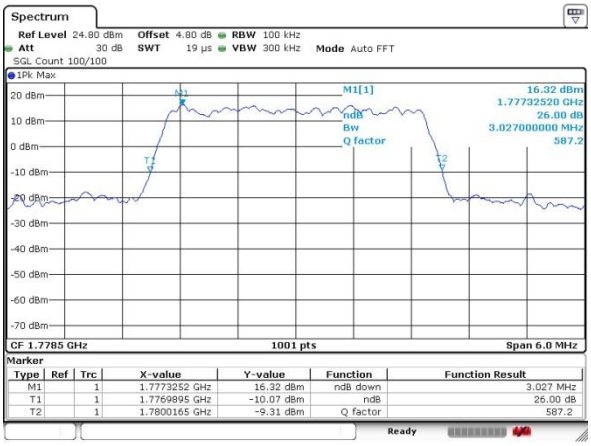
Date: 20.DEC.2016 21:35:53

Highest Channel /3MHz / QPSK



Date: 20.DEC.2016 21:37:39

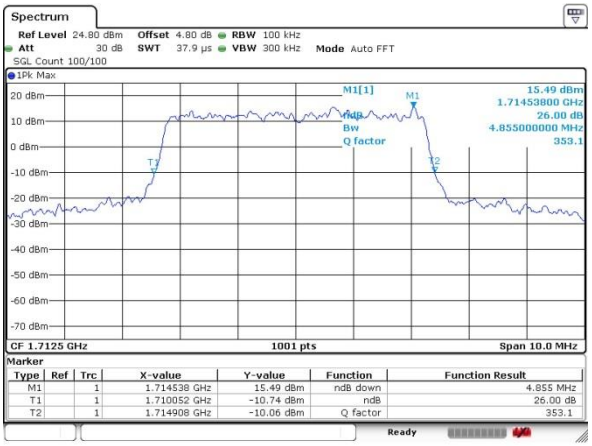
Highest Channel /3MHz / 16QAM



Date: 20.DEC.2016 21:38:05

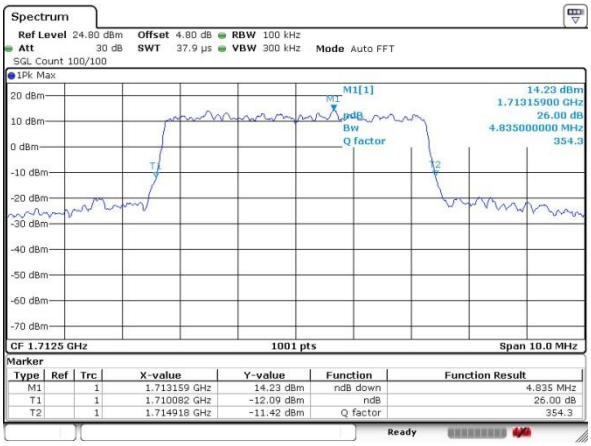
LTE Band 66

Lowest Channel / 5MHz / QPSK



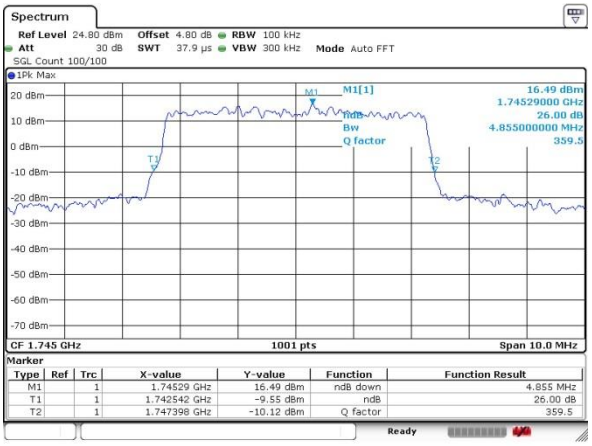
Date: 20.DEC.2016 22:43:39

Lowest Channel / 5MHz / 16QAM



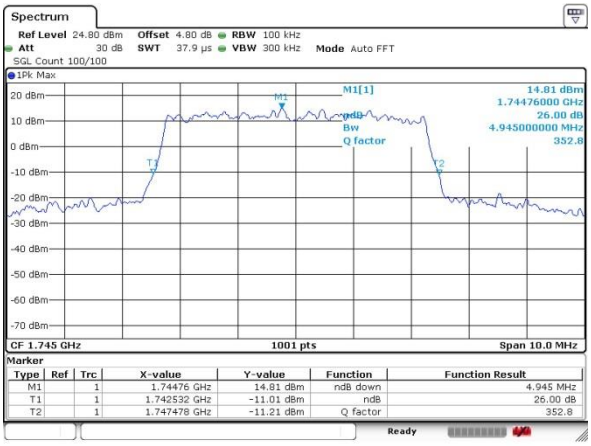
Date: 20.DEC.2016 22:42:50

Middle Channel / 5MHz / QPSK



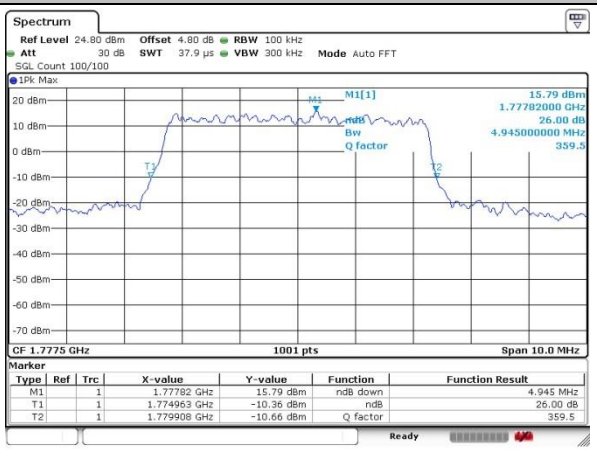
Date: 20.DEC.2016 22:45:08

Middle Channel / 5MHz / 16QAM



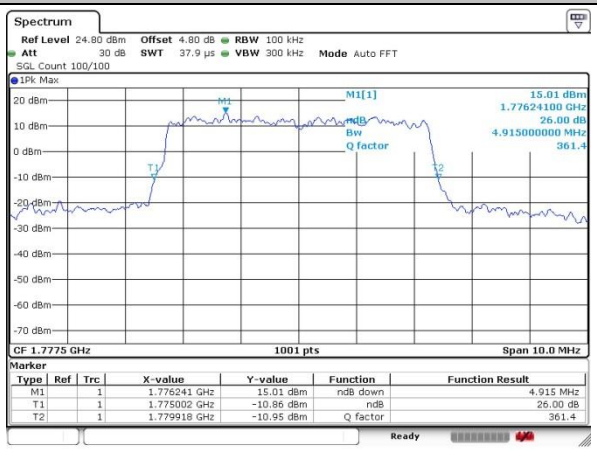
Date: 20.DEC.2016 22:45:42

Highest Channel / 5MHz / QPSK



Date: 20.DEC.2016 22:47:35

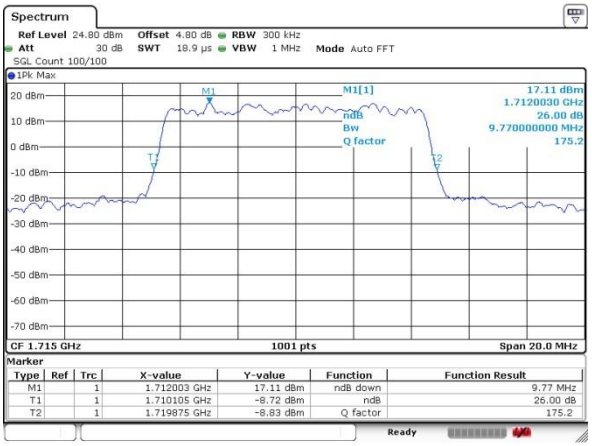
Highest Channel / 5MHz / 16QAM



Date: 20.DEC.2016 22:47:04

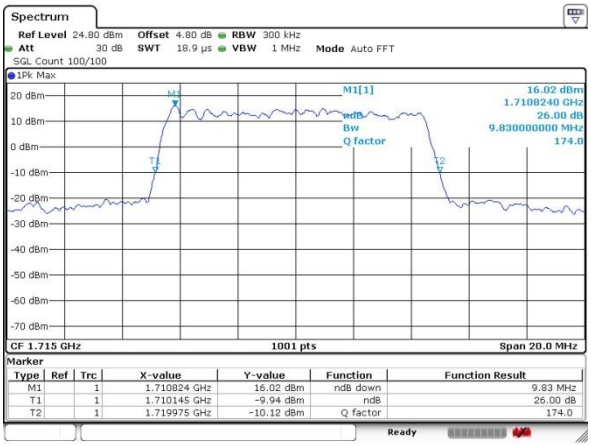
LTE Band 66

Lowest Channel / 10MHz / QPSK



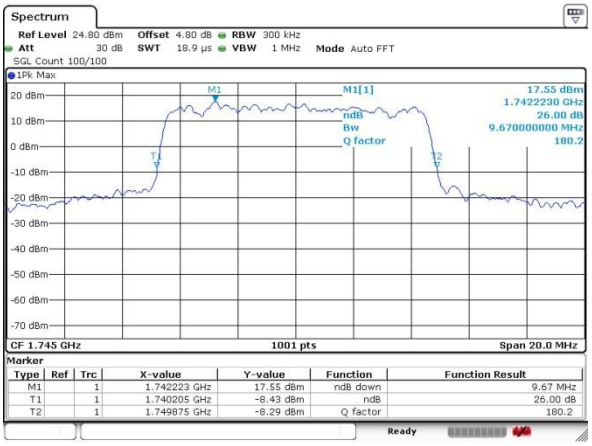
Date: 20.DEC.2016 23:15:53

Lowest Channel / 10MHz / 16QAM



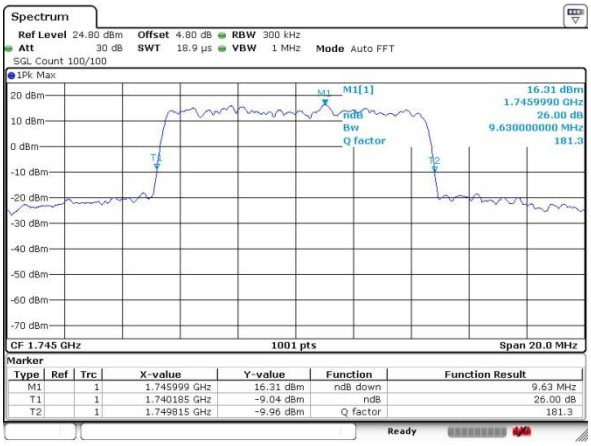
Date: 20.DEC.2016 23:16:24

Middle Channel / 10MHz / QPSK



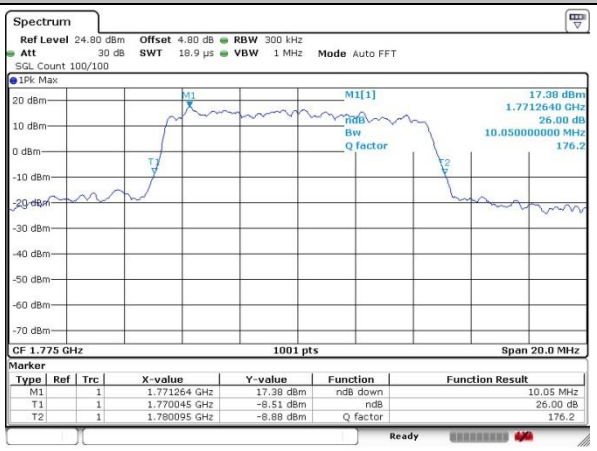
Date: 20.DEC.2016 23:18:01

Middle Channel / 10MHz / 16QAM



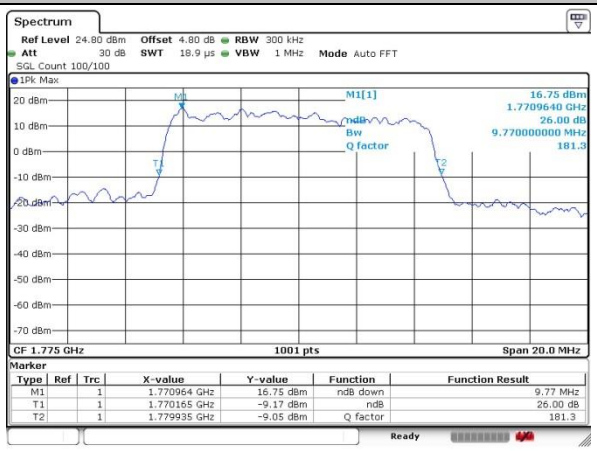
Date: 20.DEC.2016 23:17:25

Highest Channel / 10MHz / QPSK



Date: 20.DEC.2016 23:19:14

Highest Channel / 10MHz / 16QAM



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