FCC RF Test Report

APPLICANT	:	**ZTE CORPORATION**
EQUIPMENT	:	**WCDMA/LTE CPE**
BRAND NAME	:	**ZTE**
MODEL NAME	:	**MF288**
FCC ID	:	**SRQ-MF288**
STANDARD	:	**FCC 47 CFR Part 2, 27**
CLASSIFICATION	:	**PCS Licensed Transmitter (PCB)**

The product was received on Aug. 09, 2017 and completely tested on Sep. 19, 2017. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI / TIA / EIA-603-D-2010 and shown 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

Approved by: James Huang / Manager

TESTING
NVLAP LAB CODE 600155-0

Sporton International (Kunshan) Inc.
No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China

TABLE OF CONTENTS

REVISION HISTORY **3**

SUMMARY OF TEST RESULT **4**

1 GENERAL DESCRIPTION **5**

1.1 Applicant 5
1.2 Manufacturer 5
1.3 Product Feature of Equipment Under Test 5
1.4 Product Specification of Equipment Under Test 6
1.5 Modification of EUT 6
1.6 Maximum Frequency Tolerance and Emission Designator and Conducted power 7
1.7 Testing Site 8
1.8 Applied Standards 8

2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST **9**

2.1 Test Mode 9
2.2 Connection Diagram of Test System 10
2.3 Support Unit used in test configuration and system 11
2.4 Measurement Results Explanation Example 12
2.5 Frequency List of Low/Middle/High Channels 12

3 CONDUCTED TEST ITEMS **13**

3.1 Measuring Instruments 13
3.2 Test Setup 13
3.3 Test Result of Conducted Test 13
3.4 Conducted Output Power Measurement 14
3.5 Peak-to-Average Ratio 15
3.6 EIRP Power Density 16
3.7 Occupied Bandwidth 17
3.8 Conducted Band Edge Measurement 18
3.9 Conducted Spurious Emission Measurement 19
3.10 Frequency Stability Measurement 20

4 RADIATED TEST ITEMS **21**

4.1 Measuring Instruments 21
4.2 Test Setup 21
4.3 Test Result of Radiated Test 21
4.4 Radiated Spurious Emission Measurement 22

5 LIST OF MEASURING EQUIPMENT **23**

6 UNCERTAINTY OF EVALUATION **24**

APPENDIX A. TEST RESULTS OF CONDUCTED TEST

APPENDIX B. TEST RESULTS OF RADIATED TEST

APPENDIX C. TEST SETUP PHOTOGRAPHS

REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG780901C	Rev. 01	Initial issue of report	Sep. 30, 2017

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
3.5	-	Peak-to-Average Ratio	<13dB	N/A	Reporting only
3.6	§27.50 (a)(3)	EIRP Power Density	EIRP < 250mW/5MHz	PASS	-
3.7	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.8	§2.1051 §27.53 (a)(4)	Conducted Band Edge Measurement	Refer standard	PASS	-
3.9	§2.1051 §27.53 (a)(4)	Conducted Spurious Emission	< $70+10\log_{10}$(P[Watts])	PASS	-
3.10	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within the band	PASS	-
4.4	§2.1053 §27.53 (a)(4)	Radiated Spurious Emission	< $70+10\log_{10}$(P[Watts])	PASS	Under limit 19.85 dB at 6918.000 MHz

1 General Description

1.1 Applicant

ZTE CORPORATION
ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District,Shenzhen, Guangdong, 518057, P.R.China

1.2 Manufacturer

ZTE CORPORATION
ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District,Shenzhen, Guangdong, 518057, P.R.China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	WCDMA/LTE CPE
Brand Name	ZTE
Model Name	MF288
FCC ID	SRQ-MF288
EUT supports Radios application	WCDMA/HSPA/HSPA+(16QAM uplink is not supported)/LTE/ WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80
IMEI Code	Conducted: 866339030000611 Radiation: 866339030000975
HW Version	MF288HW1.0
SW Version	MF288UIV1.0.3
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Product Feature	
Tx Frequency	LTE Band 30 : 2307.5 MHz ~ 2312.5 MHz
Rx Frequency	LTE Band 30 : 2352.5 MHz ~ 2357.5 MHz
Bandwidth	5MHz / 10MHz
Maximum Output Power to Antenna	LTE Band 30 : 21.39 dBm
Antenna Type/Gain	WWAN : PIFA Antenna (Internal Antenna)/1.30dBi WWAN : Dipole Antenna (External Antenna)/1.44dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Modification of EUT

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

1.6 Maximum Frequency Tolerance and Emission Designator and Conducted power

LTE Band 30		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power(W)
5	2307.5 ~ 2312.5	4M50G7D	-	0.1377	4M49W7D	-	0.1153
10	2310.0	9M03G7D	0.0022	0.1368	8M99W7D	-	0.1156

LTE Band 30		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power(W)
5	2307.5 ~ 2312.5	4M51W7D	-	0.1119
10	2310.0	9M01W7D	-	0.1117

1.7 Testing Site

Sporton Lab is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

Test Site	Sporton International (Kunshan) Inc.		
Test Site Location	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	**Sporton Site No.**		**FCC Test Firm Registration No.**
	TH01-KS	03CH03-KS	630927

Note: The test site complies with ANSI C63.4 2014 requirement.

1.8 Applied Standards

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

- 47 CFR Part 2, Part 27(D)
- ANSI / TIA / EIA-603-D-2010
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

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

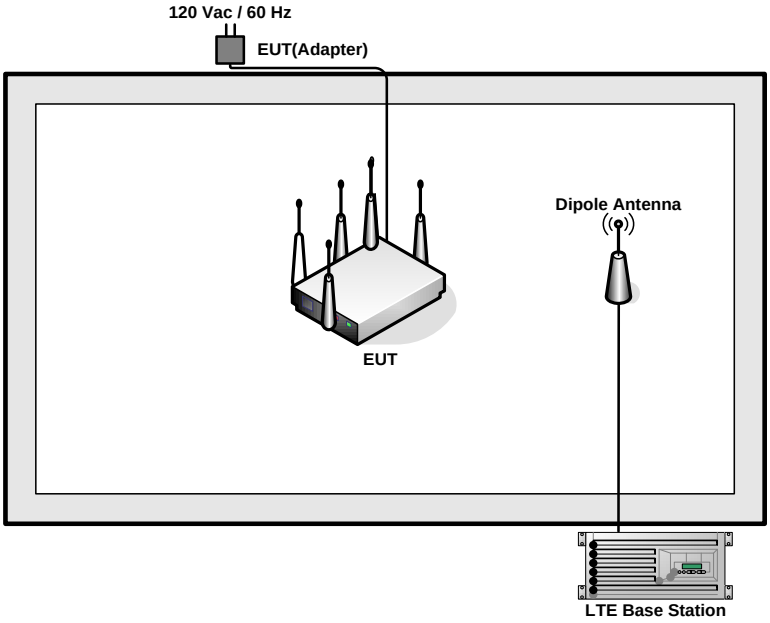
Antenna port conducted and radiated test items listed below are performed according to K DB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

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

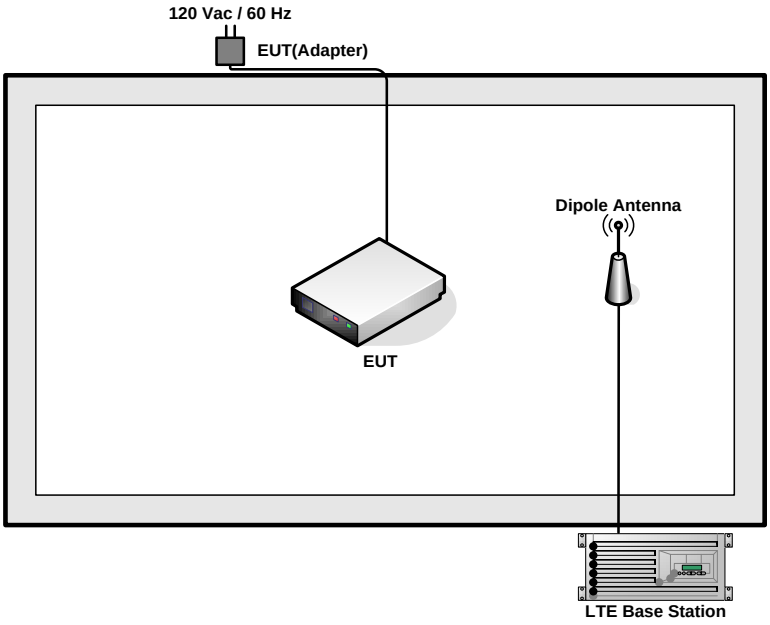
Conducted Test Cases	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	30	-	-	V		-	-	V	V	V	V	V	V	V	V	V
		-	-		V	-	-	V	V	V	V	V	V		V	
Peak-to-Average Ratio	30	-	-		V	-	-	V	V	V	V		V		V	
E.I.R.P PSD	30	-	-	V		-	-	V	V	V	V			V	V	V
		-	-		V	-	-	V	V	V	V				V	
26dB and 99% Bandwidth	30	-	-	V		-	-	V	V	V			V	V	V	V
		-	-		V	-	-	V	V	V			V		V	
Conducted Band Edge	30	-	-	V		-	-	V	V	V	V		V	V		V
		-	-		V	-	-	V	V	V	V		V		V	
Conducted Spurious Emission	30	-	-	V		-	-	V	V	V	V			V	V	V
		-	-		V	-	-	V	V	V	V				V	
Frequency Stability	30	-	-		V	-	-	V					V		V	
Radiated Spurious Emission	30	-	-	V		-	-	V			V			V	V	V
					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

For External Antenna



For Internal Antenna



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.	DC Power Supply	GW INSTEK	GPS-3030D	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.

Example:

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

The following shows an offset computation example with RF cable loss 4.3dB.

Example :

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

= 4.3 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 30 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
10	Channel	-	27710	-
	Frequency	-	2310	-
5	Channel	27685	27710	27735
	Frequency	2307.5	2310	2312.5

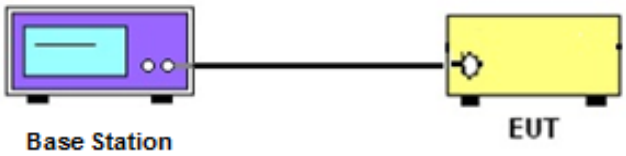
3 Conducted Test Items

3.1 Measuring Instruments

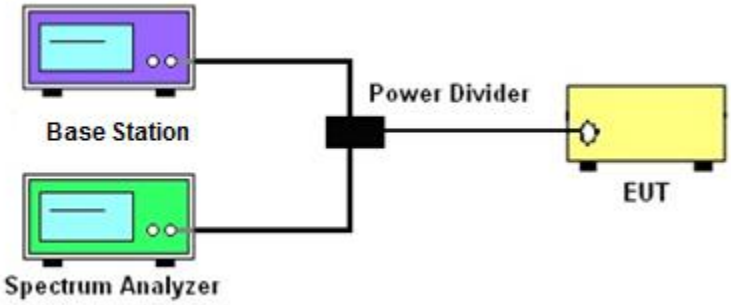
See list of measuring instruments of this test report.

3.2 Test Setup

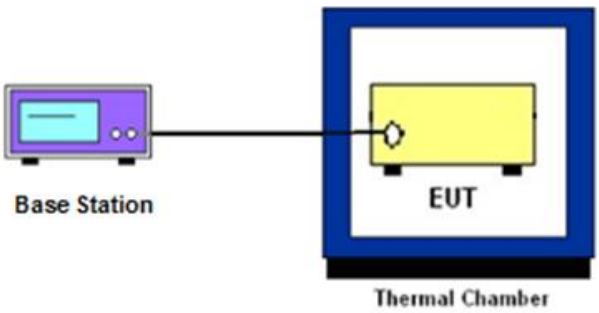
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied / 26dB Bandwidth ,Band-Edge and Conducted Spurious Emission



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.

3.4 Conducted Output Power Measurement

3.4.1 Description of the Conducted Output Power Measurement

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

3.4.2 Test Procedures

1. The transmitter output port was connected to base station.
2. Set EUT at maximum power through base station.
3. Select lowest, middle, and highest channels for each band and different modulation.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.7.1.
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 EIRP Power Density

3.6.1 Description of EIRP Power Density

For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average EIRP must not exceed 50 milliwatts within any 1 megahertz of authorized bandwidth, *except that* for mobile and portable stations compliant with 3GPP LTE standards or another advanced mobile broadband protocol that avoids concentrating energy at the edge of the operating band the average EIRP must not exceed 250 milliwatts within any 5 megahertz of authorized bandwidth but may exceed 50 milliwatts within any 1 megahertz of authorized bandwidth. For mobile and portable stations using time division duplexing (TDD) technology, the duty cycle must not exceed 38 percent in the 2305-2315 MHz and 2350-2360 MHz bands. Mobile and portable stations using FDD technology are restricted to transmitting in the 2305-2315 MHz band. Power averaging shall not include intervals in which the transmitter is off.

3.6.2 Test Procedures

1. Set instrument center frequency to OBW center frequency.
2. Set span to at least 1.5 times the OBW.
3. Set the RBW to the specified reference bandwidth (often 1 MHz).
4. Set VBW ≥ 3 × RBW.
5. Detector = RMS (power averaging).
6. Ensure that the number of measurement points in the sweep ≥ 2 × span/RBW.
7. Sweep time = auto couple.
8. Employ trace averaging (RMS) mode over a minimum of 100 traces.
9. Use the peak marker function to determine the maximum amplitude level within the reference bandwidth (PSD).

3.7 Occupied Bandwidth

3.7.1 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 26dB 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 26 dB.
The 26 dB emission bandwidth(EBW) 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.

3.7.2 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The 26dB and 99% occupied bandwidth (BW) of the middle channel for the highest RF powers with full RB sizes were measured.

3.8 Conducted Band Edge Measurement

3.8.1 Description of Conducted Band Edge Measurement

27.53 (a)(4)

For mobile and portable stations operating in the 2305-2315 MHz and 2350-2360 MHz bands:

(i) By a factor of not less than: 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, not less than 55 + 10 log (P) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, not less than 61 + 10 log (P) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, and not less than 67 + 10 log (P) dB on all frequencies between 2328 and 2337 MHz;

(ii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log (P) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log (P) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log (P) dB on all frequencies between 2288 and 2292 MHz, and 70 + 10 log (P) dB below 2288 MHz;

(iii) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2360 and 2365 MHz, and not less than 70 + 10 log (P) dB above 2365 MHz.

3.8.2 Test Procedures

1. The EUT was connected to Spectrum Analyzer and Base Station via power divider.
2. The band edges of low and high channels were measured with RBW ≥ 1% EBW set in Spectrum Analyzer, while the EUT was transmitting under maximum power.
3. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
4. 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.

3.9 Conducted Spurious Emission Measurement

3.9.1 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 70 + 10 log (P) dB.

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

3.9.2 Test Procedures

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. 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.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from 70 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [70 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [70 + 10log(P)] (dB)
   = -40dBm.

3.10 Frequency Stability Measurement

3.10.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5ppm) of the center frequency.

3.10.2 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the base station.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.10.3 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at 25±5° C and connected with the base station.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

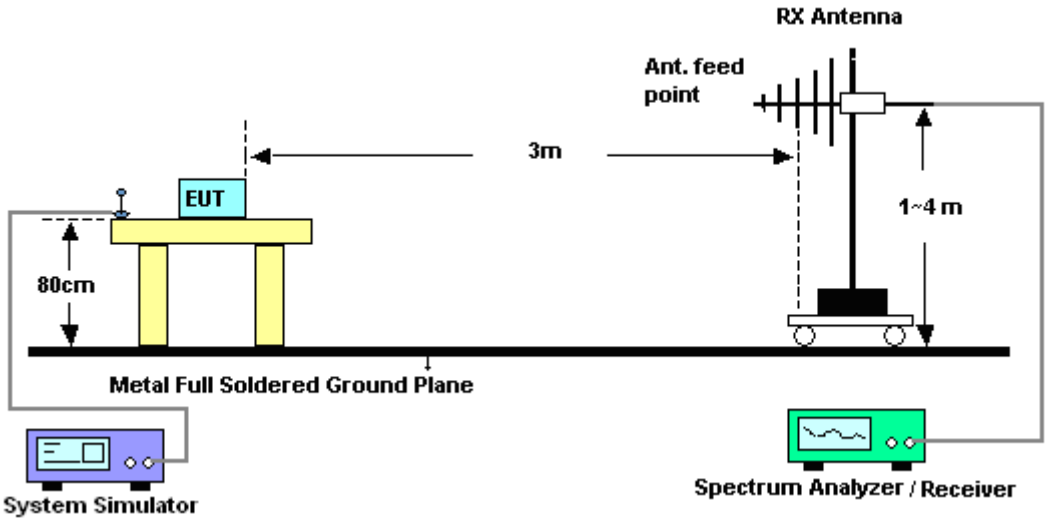
4 Radiated Test Items

4.1 Measuring Instruments

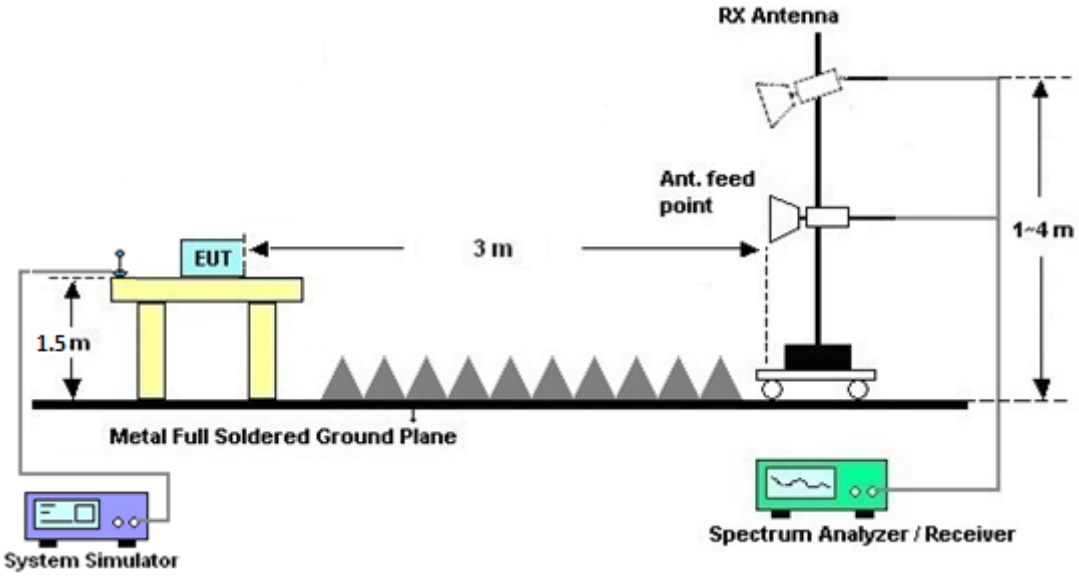
See list of measuring instruments of this test report.

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 Measurement

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 70 + 10 log (P) dB.

4.4.2 Test Procedures

1. 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.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. 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.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 70 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [70 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [70 + 10log(P)] (dB)
    = -40dBm.
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain

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. 08, 2017	Sep. 19, 2017	Aug. 07, 2018	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 13, 2016	Sep. 19, 2017	Oct. 12, 2017	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150244	10Hz~44GHz	Apr. 18, 2017	Sep. 15, 2017	Apr. 17, 2018	Radiation (03CH03-KS)
Bilog Antenna	TeseQ	CBL6112D	35406	25MHz~2GHz	Apr. 22, 2017	Sep. 15, 2017	Apr. 21, 2018	Radiation (03CH03-KS)
Horn Antenna	Schwarzbeck	BBHA9120 D	9120D-1356	1GHz~18GHz	Apr. 22, 2017	Sep. 15, 2017	Apr. 21, 2018	Radiation (03CH03-KS)
SHF-EHF Horn	com-power	AH-840	101070	18GHz~40GHz	Oct. 19, 2016	Sep. 15, 2017	Oct. 18, 2017	Radiation (03CH03-KS)
Amplifier	com-power	PA-103A	161069	1MHz~1000MHz / 32 dB	Apr. 18, 2017	Sep. 15, 2017	Apr. 17, 2018	Radiation (03CH03-KS)
Amplifier	MITEQ	TTA1840-35 -HG	1887435	18GHz~40GHz	Oct. 13, 2016	Sep. 15, 2017	Oct. 12, 2017	Radiation (03CH03-KS)
Amplifier	Agilent	8449B	3008A02370	1GHz~26.5GHz	Oct. 13, 2016	Sep. 15, 2017	Oct. 12, 2017	Radiation (03CH03-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Sep. 15, 2017	NCR	Radiation (03CH03-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Sep. 15, 2017	NCR	Radiation (03CH03-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Sep. 15, 2017	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))	2.8dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.3dB

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 30 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.39	21.32	21.33
5	1	12		21.33	21.31	21.31
5	1	24		21.35	21.24	21.25
5	12	0		20.37	20.29	20.29
5	12	7		20.39	20.28	20.29
5	12	13		20.32	20.27	20.29
5	25	0		20.34	20.28	20.28
5	1	0	16-QAM	20.62	20.56	20.56
5	1	12		20.59	20.58	20.57
5	1	24		20.61	20.46	20.48
5	12	0		19.40	19.34	19.37
5	12	7		19.41	19.35	19.38
5	12	13		19.42	19.32	19.32
5	25	0		19.41	19.29	19.32
5	1	0	64QAM	20.49	20.42	20.49
5	1	12		20.40	20.35	20.41
5	1	24		20.38	20.36	20.38
5	12	0		19.39	19.33	19.36
5	12	7		19.39	19.34	19.36
5	12	13		19.39	19.30	19.34
5	25	0		19.37	19.29	19.30

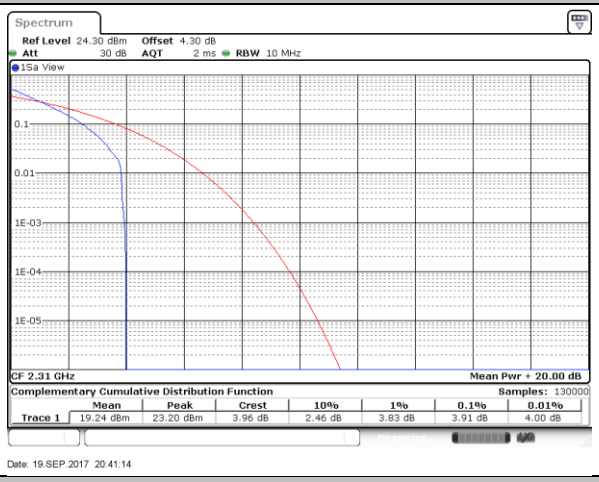
10	1	0	QPSK	-	21.36	-
10	1	25			21.26	
10	1	49			21.27	
10	25	0			20.32	
10	25	12			20.30	
10	25	25			20.25	
10	50	0			20.29	
10	1	0	16-QAM		20.63	
10	1	25			20.53	
10	1	49			20.48	
10	25	0			19.36	
10	25	12			19.33	
10	25	25			19.30	
10	50	0			19.32	
10	1	0	64QAM		20.48	
10	1	25			20.37	
10	1	49			20.39	
10	25	0			19.34	
10	25	12			19.34	
10	25	25			19.28	
10	50	0			19.32	

Peak-to-Average Ratio

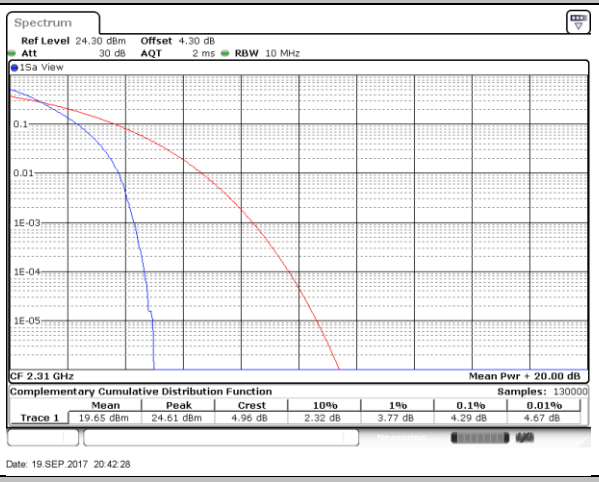
Mode	LTE Band 30 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.91	4.29	4.75	5.25	
Highest CH	-	-	-	-	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH			PASS		
Middle CH	5.48	5.83			
Highest CH					

LTE Band 30 / 10MHz / QPSK

Middle Channel / 1RB

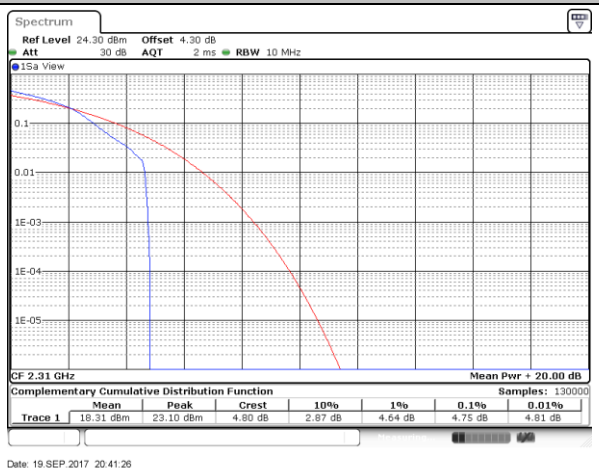


Middle Channel / Full RB

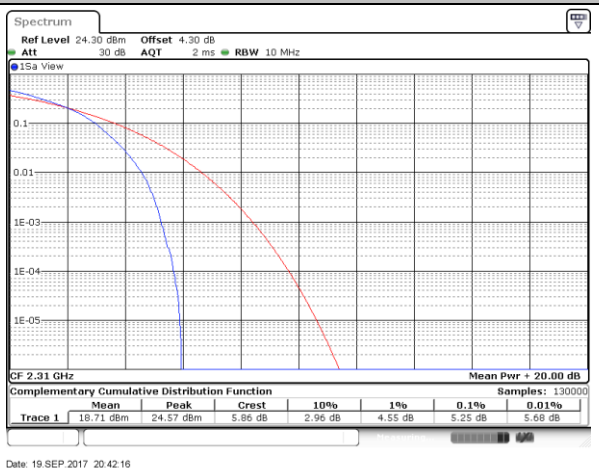


LTE Band 30 / 10MHz / 16QAM

Middle Channel / 1RB

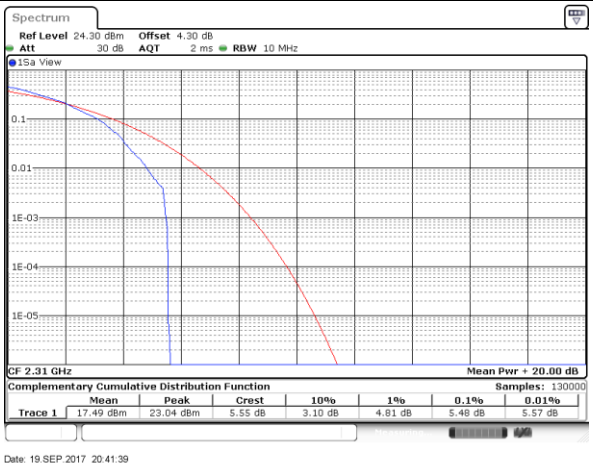


Middle Channel / Full RB

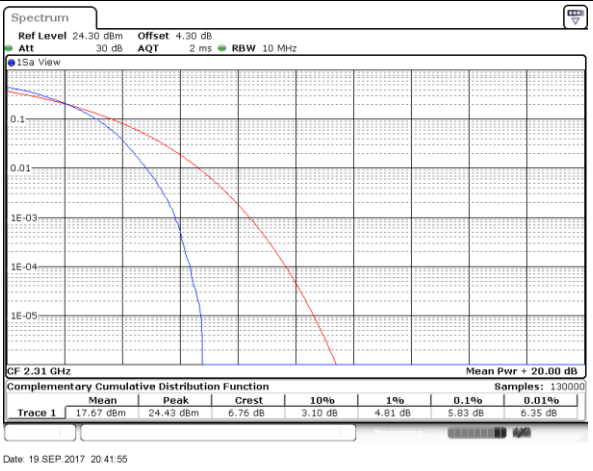


LTE Band 30 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



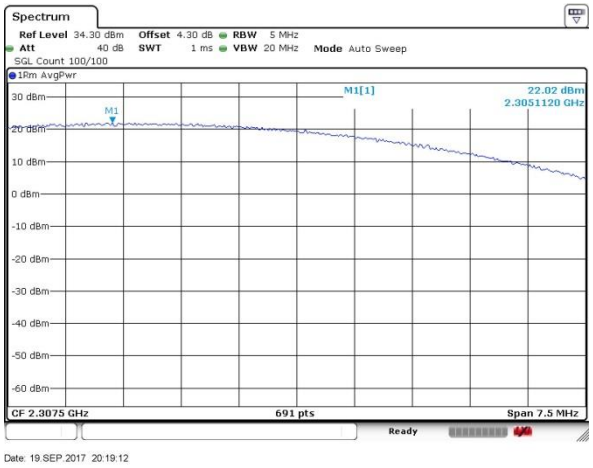
EIRP Power Density

Mode	LTE Band 30 : Conducted Power Density (dBm/5MHz)											
BW	5MHz		10MHz		5MHz	10MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	22.02	21.40			21.23							
Middle CH	21.93	21.43	22.00	21.39	21.19	20.27						
Highest CH	21.96	21.24			21.17							

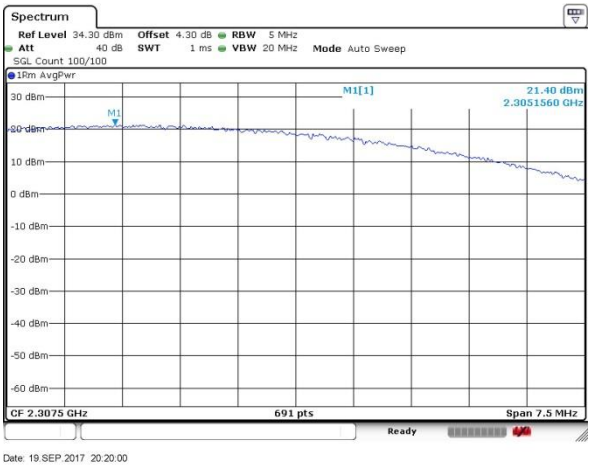
Mode	LTE Band 30 : EIRP Power Density (dBm/5MHz)											
BW	5MHz		10MHz		5MHz	10MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	23.46	22.84			22.67							
Middle CH	23.37	22.87	23.44	22.83	22.63	21.71						
Highest CH	23.4	22.68			22.61							
Antenna Gain	1.44 dBi											
Limit	250mW / 5MHz = 24dBm / 5MHz											
Result	Pass											

LTE Band 30 / 5MHz

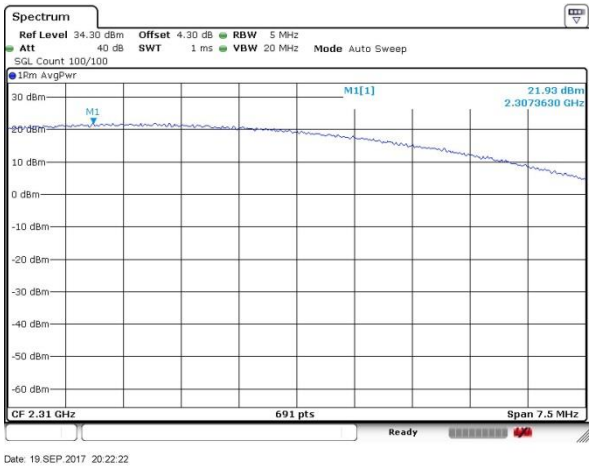
Lowest Channel / 5MHz / 1RB0 / QPSK



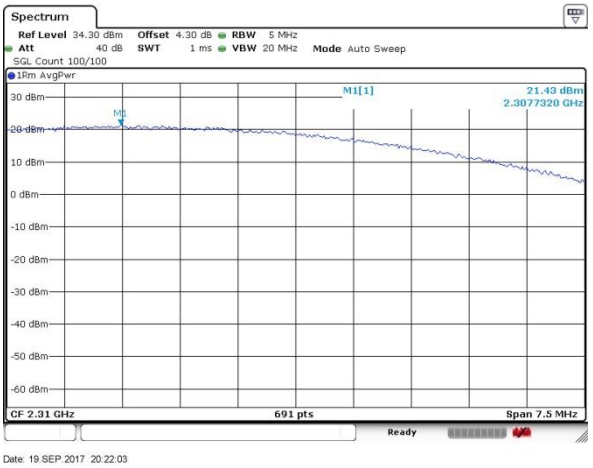
Lowest Channel / 5MHz / 1RB0 / 16QAM



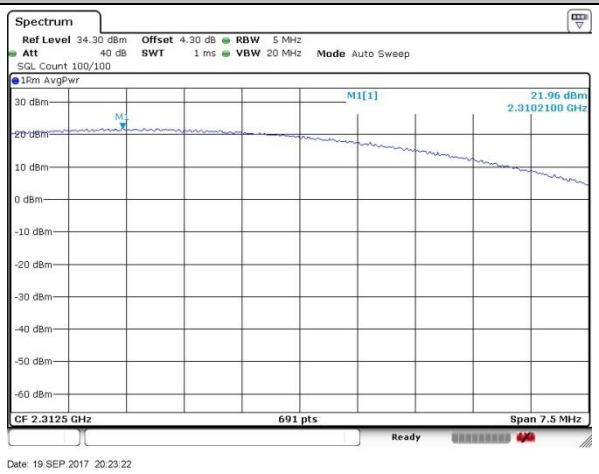
Middle Channel / 5MHz / 1RB0 / QPSK



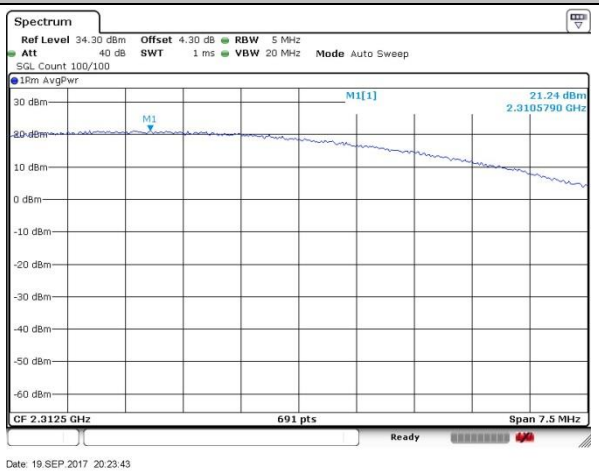
Middle Channel / 5MHz / 1RB12 / 16QAM



Highest Channel / 5MHz / 1RB0 / QPSK

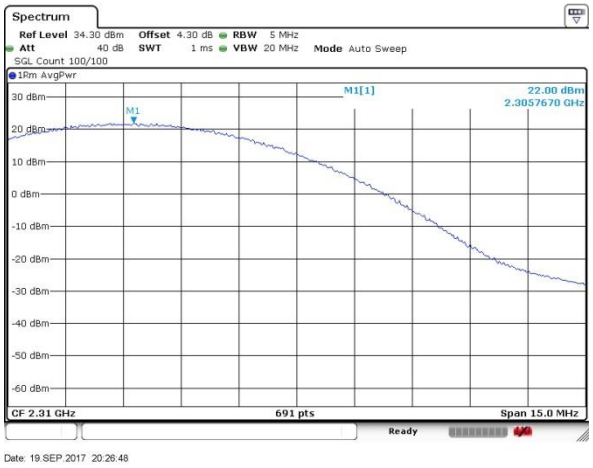


Highest Channel / 5MHz / 1RB12/ 16QAM



LTE Band 30 / 10MHz

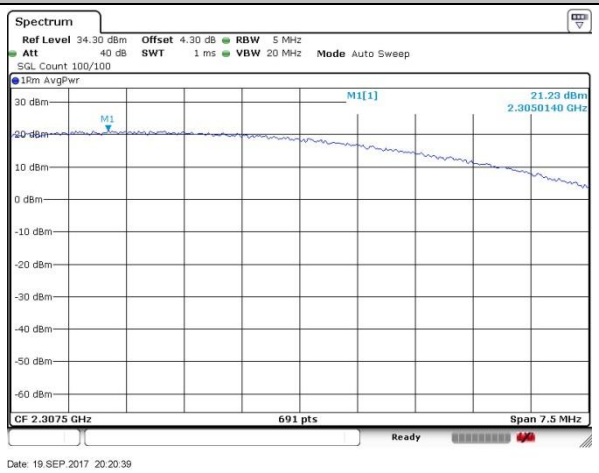
Lowest Channel / 10MHz / 1RB0 / QPSK



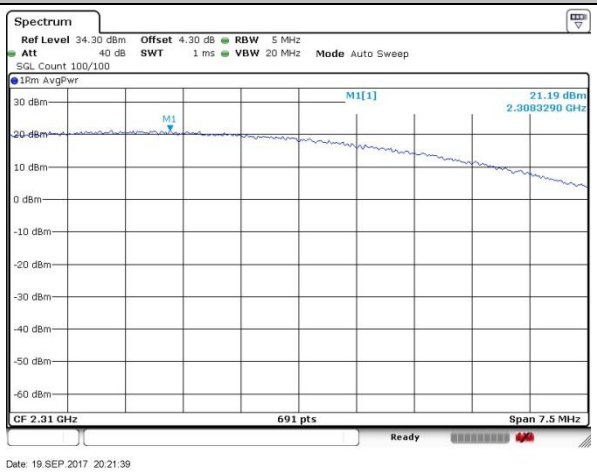
Lowest Channel / 10MHz / 1RB0 / 16QAM

LTE Band 30 / 5MHz

Lowest Channel / 5MHz / 1RB0 / 64QAM

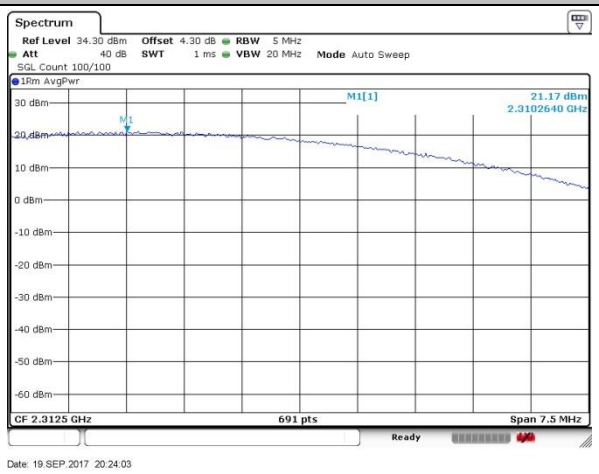


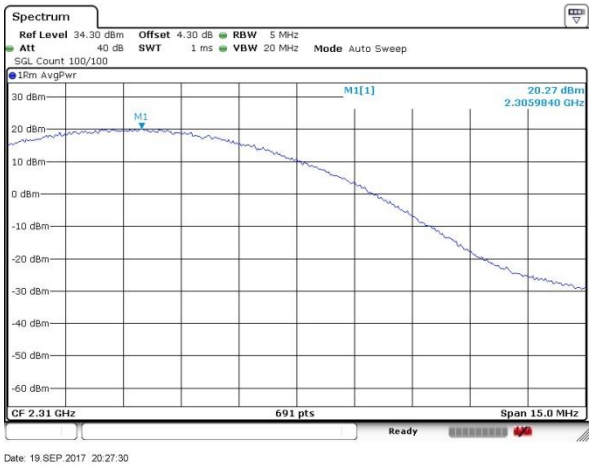
Middle Channel / 5MHz / 1RB0 / 64QAM



LTE Band 30 / 5MHz

Highest Channel / 5MHz / 1RB0 / 64QAM



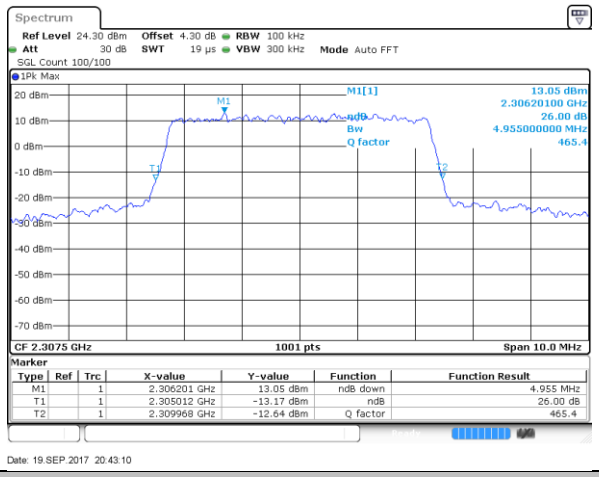
LTE Band 30 / 10MHz	
Middle Channel / 10MHz / 1RB0 / 64QAM	
	

26dB Bandwidth

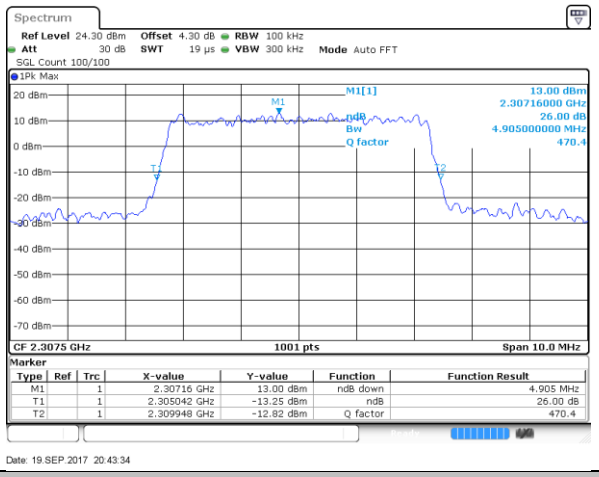
Mode	LTE Band 30 : 26dB BW(MHz)											
BW	5MHz		10MHz		5MHz	10MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	4.96	4.91			4.82							
Middle CH	4.95	4.89	9.85	9.75	4.94	9.67						
Highest CH	4.85	4.85			4.86							

LTE Band 30

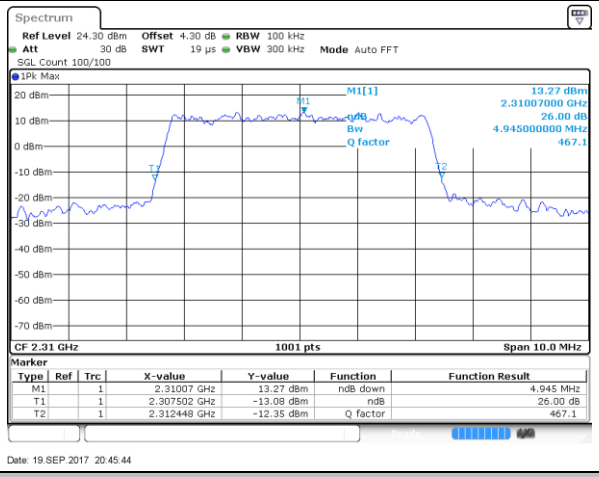
Lowest Channel / 5MHz / QPSK



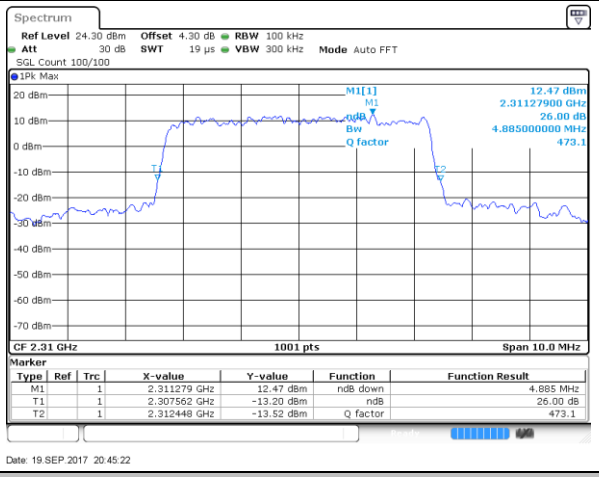
Lowest Channel / 5MHz / 16QAM



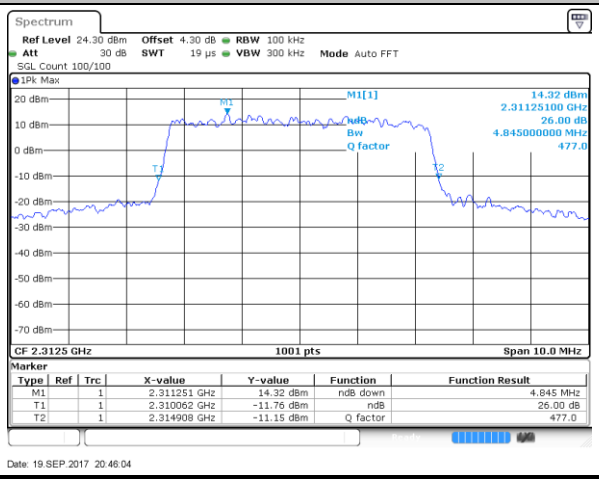
Middle Channel / 5MHz / QPSK



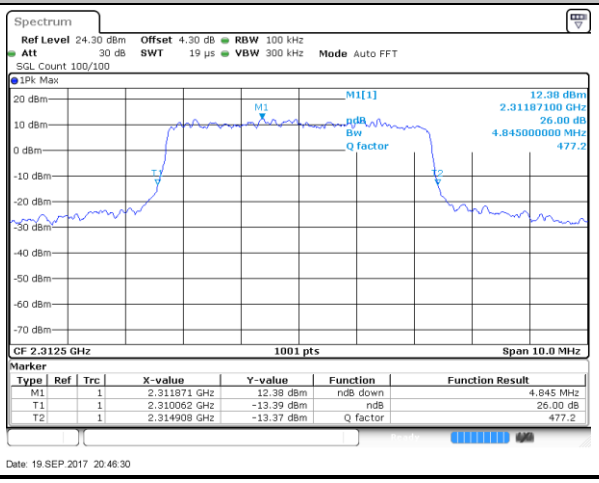
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

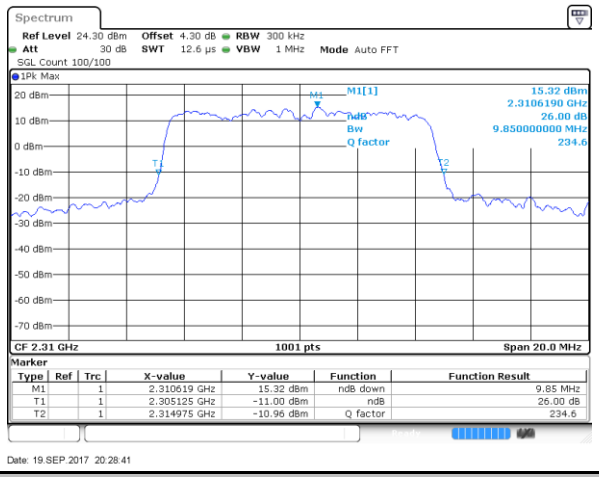


Highest Channel / 5MHz / 16QAM

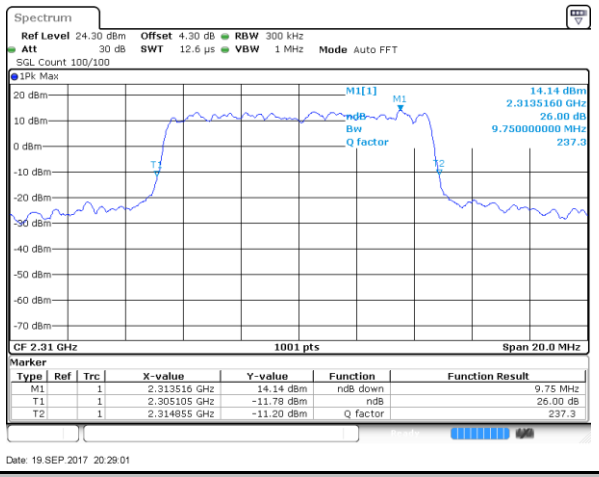


LTE Band 30

Middle Channel / 10MHz / QPSK

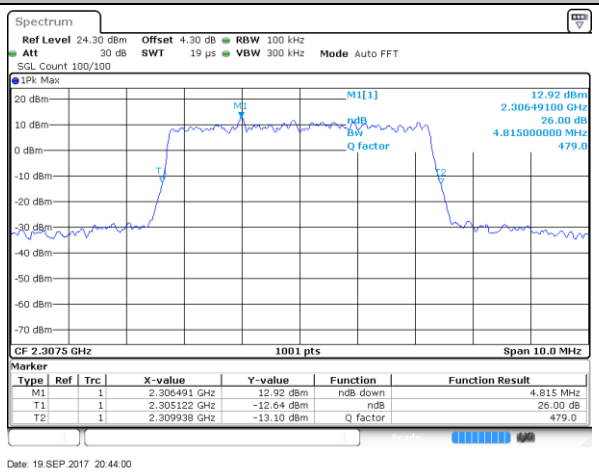


Middle Channel / 10MHz / 16QAM

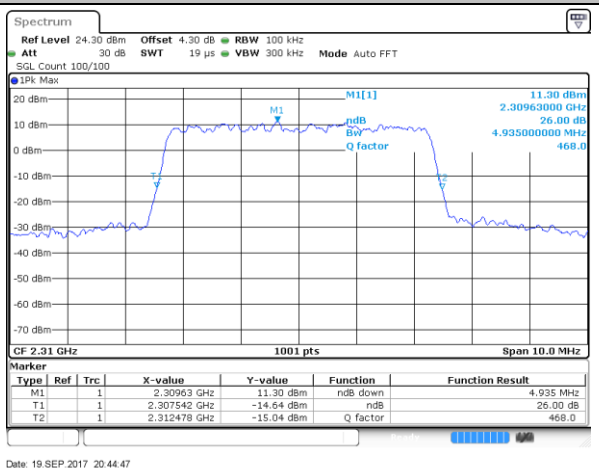


LTE Band 30

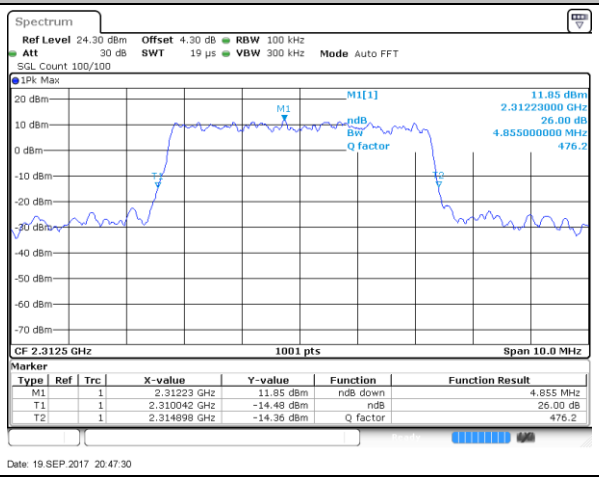
Lowest Channel / 5MHz / 64QAM



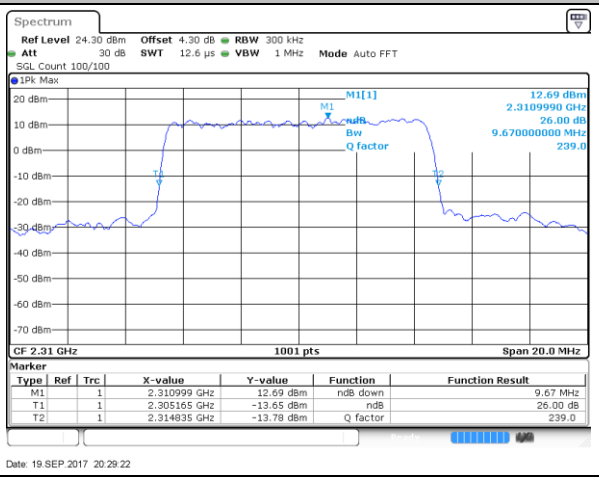
Middle Channel / 5MHz / 64QAM



Highest Channel /5MHz / 64QAM



Middle Channel /10MHz / 64QAM

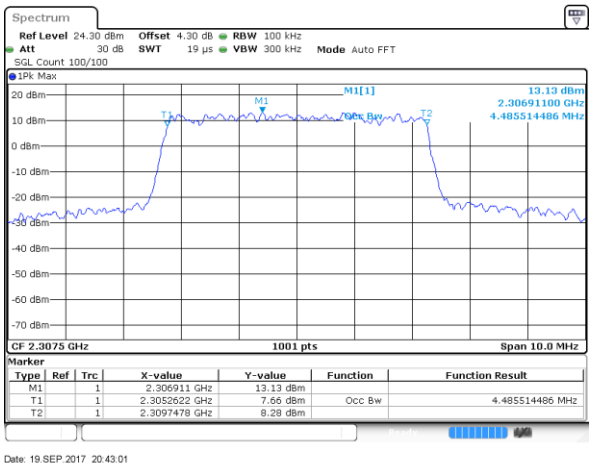


Occupied Bandwidth

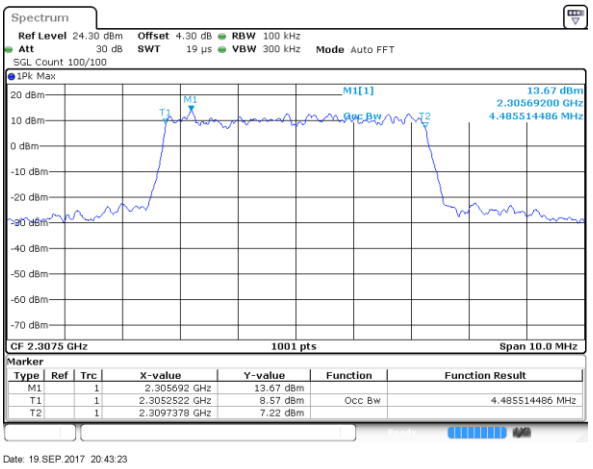
Mode	LTE Band 30 : 99%OBW(MHz)											
BW	5MHz		10MHz		5MHz	10MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	4.49	4.49			4.47							
Middle CH	4.47	4.47	9.03	8.99	4.51	9.01						
Highest CH	4.50	4.49			4.49							

LTE Band 30

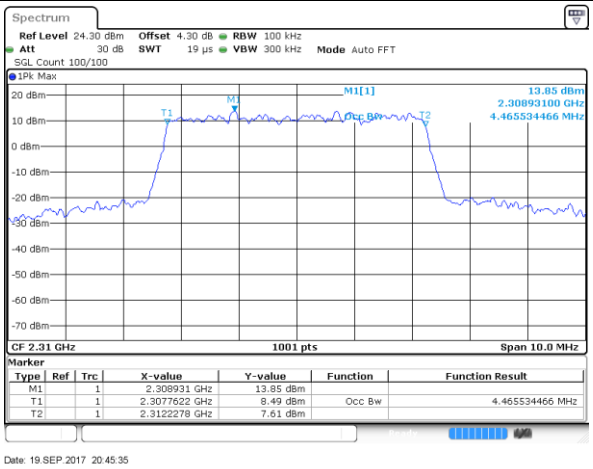
Lowest Channel / 5MHz / QPSK



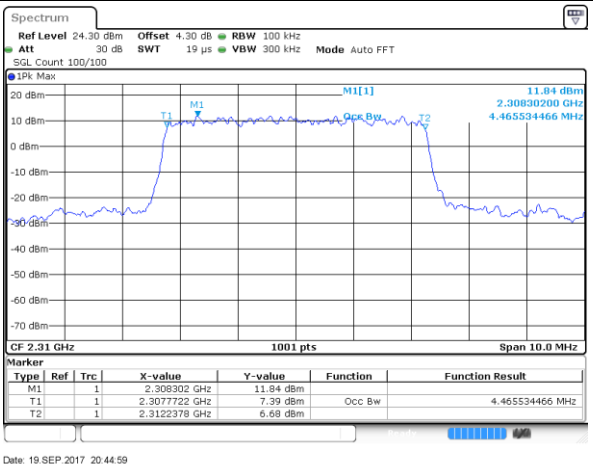
Lowest Channel / 5MHz / 16QAM



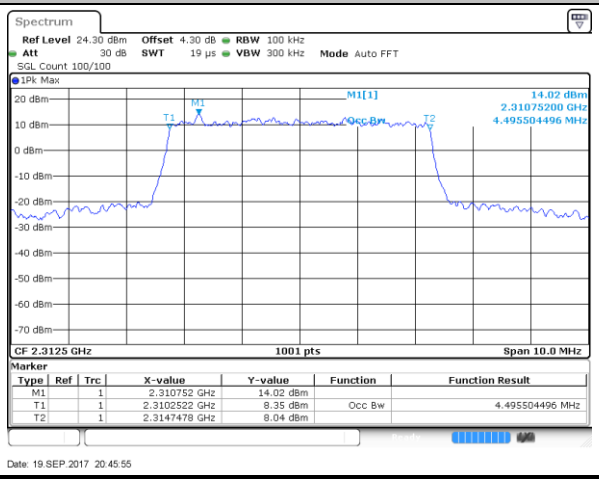
Middle Channel / 5MHz / QPSK



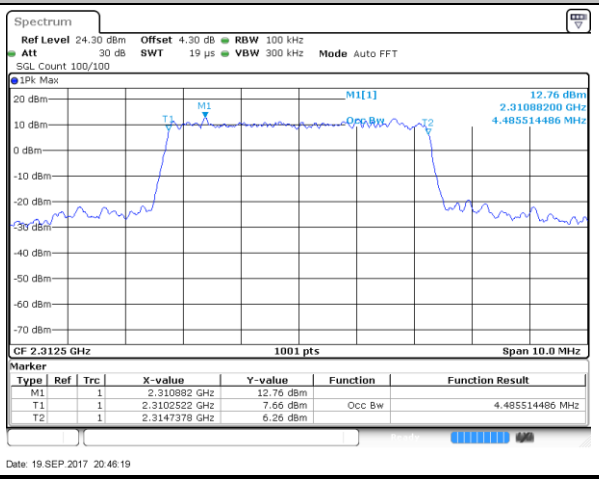
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

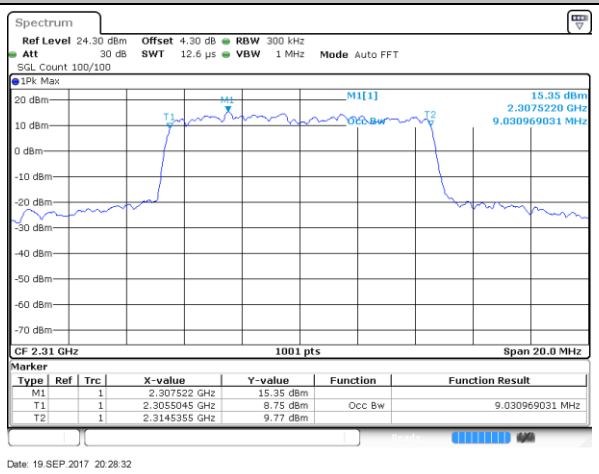


Highest Channel / 5MHz / 16QAM

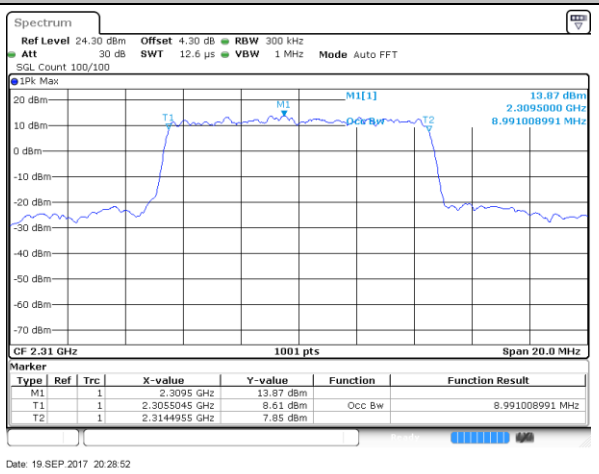


LTE Band 30

Middle Channel / 10MHz / QPSK

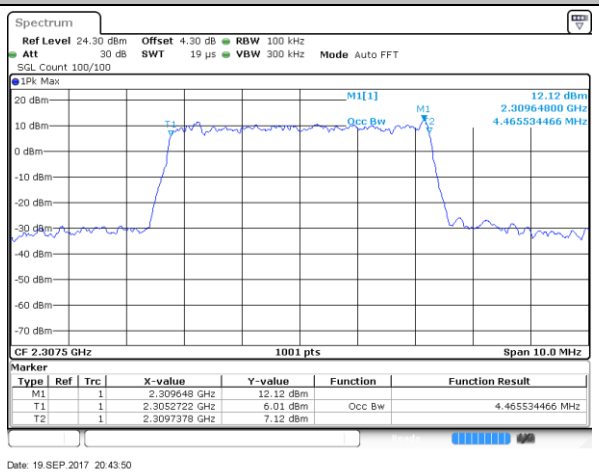


Middle Channel / 10MHz / 16QAM

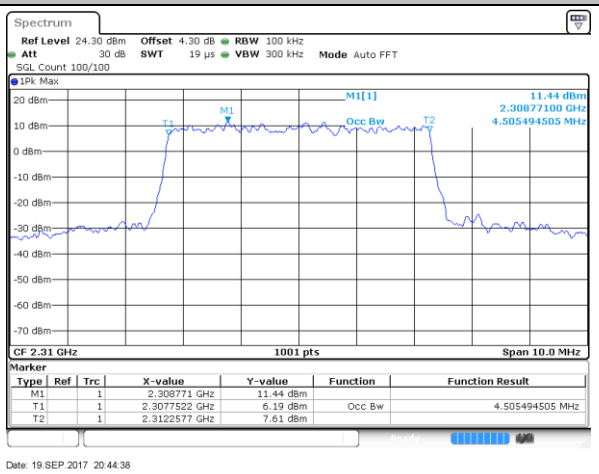


LTE Band 30

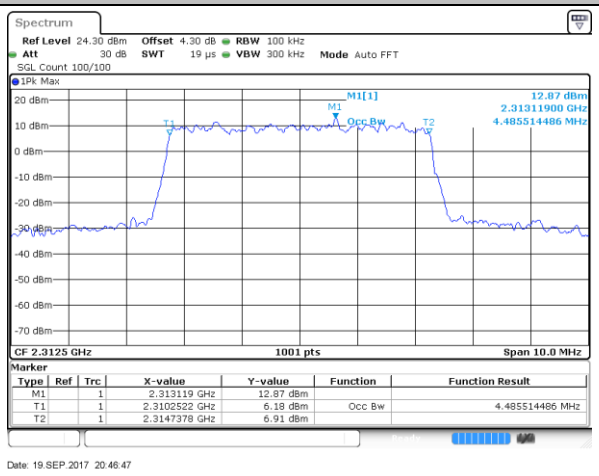
Lowest Channel / 5MHz / 64QAM



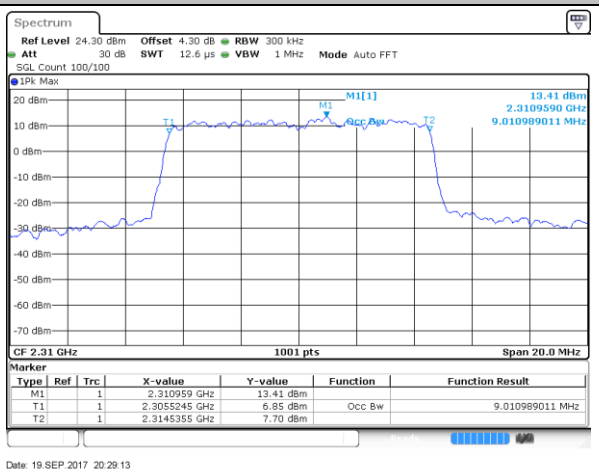
Middle Channel / 5MHz / 64QAM



Highest Channel /5MHz / 64QAM



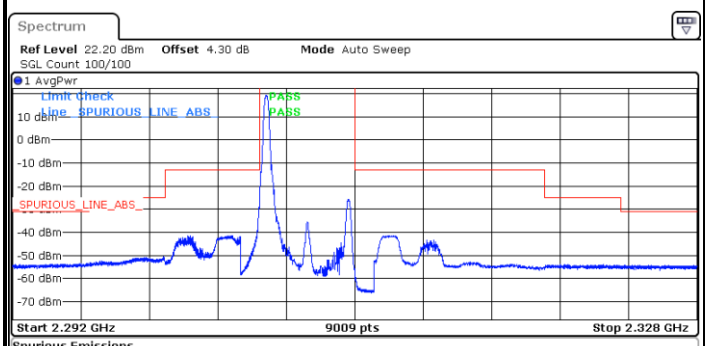
Middle Channel /10MHz / 64QAM



Conducted Band Edge

LTE Band 30 / 5MHz / QPSK

Lowest Band Edge / 1 RB

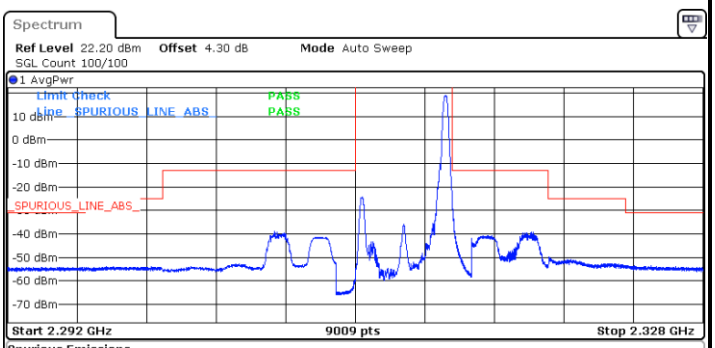


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29595 GHz	-53.36 dBm	-22.36 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29995 GHz	-50.46 dBm	-25.46 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30134 GHz	-41.35 dBm	-28.35 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-25.77 dBm	-12.77 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30534 GHz	19.35 dBm	-10.65 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31002 GHz	-59.34 dBm	-46.34 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31172 GHz	-41.32 dBm	-28.32 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32103 GHz	-53.73 dBm	-28.73 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32650 GHz	-54.21 dBm	-23.21 dB

Date: 19.SEP.2017 20:48:49

Highest Band Edge / 1 RB

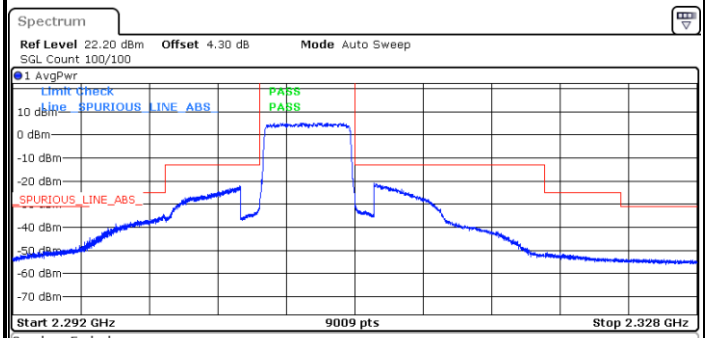


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29297 GHz	-54.22 dBm	-23.22 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29941 GHz	-53.73 dBm	-28.73 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30581 GHz	-39.02 dBm	-26.02 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-59.20 dBm	-46.20 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31468 GHz	18.94 dBm	-11.06 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-26.11 dBm	-13.11 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31922 GHz	-39.32 dBm	-26.32 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32000 GHz	-49.58 dBm	-24.58 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32404 GHz	-53.29 dBm	-22.29 dB

Date: 19.SEP.2017 20:56:48

Lowest Band Edge / Full RB

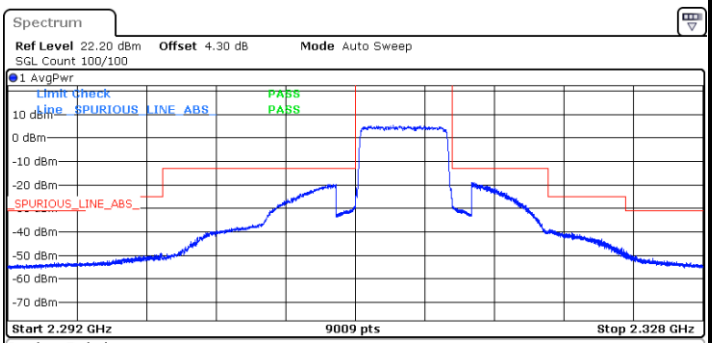


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29590 GHz	-46.05 dBm	-15.05 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29994 GHz	-34.36 dBm	-9.36 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30395 GHz	-21.94 dBm	-8.94 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-30.75 dBm	-17.75 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30715 GHz	5.15 dBm	-24.85 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-29.47 dBm	-16.47 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31101 GHz	-21.00 dBm	-8.00 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32009 GHz	-50.83 dBm	-25.83 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32464 GHz	-53.68 dBm	-22.68 dB

Date: 19.SEP.2017 20:52:04

Highest Band Edge / Full RB



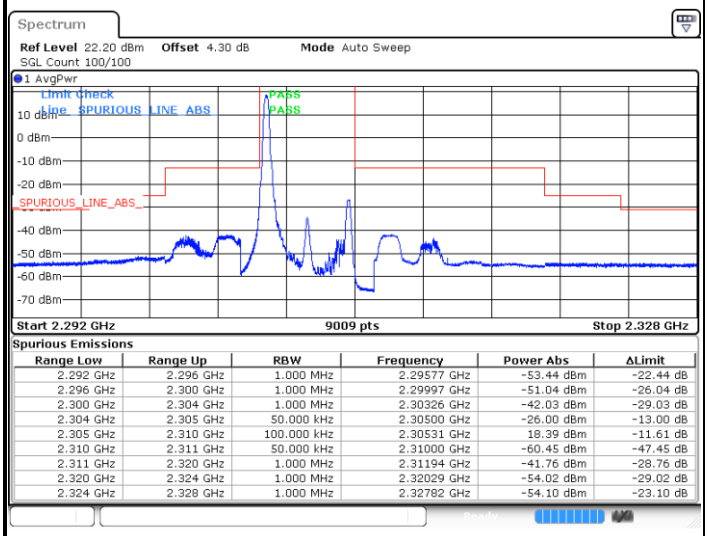
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29459 GHz	-53.11 dBm	-22.11 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29994 GHz	-49.00 dBm	-24.00 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30900 GHz	-19.56 dBm	-6.56 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-28.42 dBm	-15.42 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31197 GHz	5.32 dBm	-24.68 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31501 GHz	-28.09 dBm	-15.09 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31615 GHz	-18.89 dBm	-5.89 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32009 GHz	-38.89 dBm	-13.89 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32402 GHz	-48.35 dBm	-17.35 dB

Date: 19.SEP.2017 20:52:38

LTE Band 30 / 5MHz / 16QAM

Lowest Band Edge / 1RB

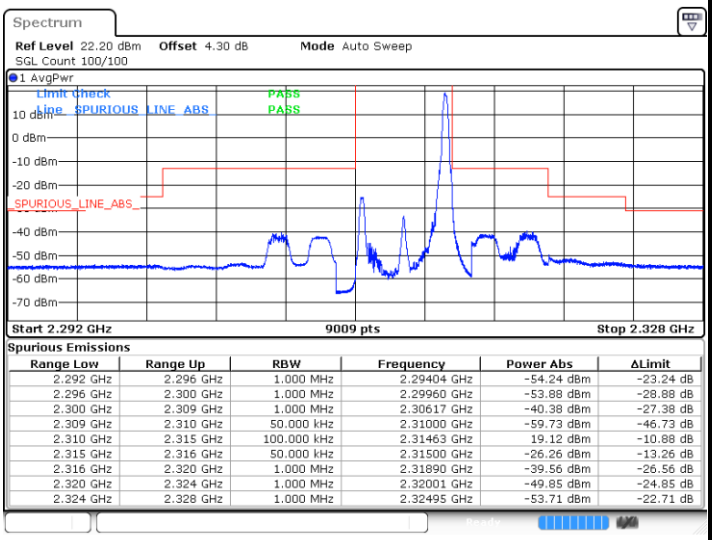


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29577 GHz	-53.44 dBm	-22.44 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29997 GHz	-51.04 dBm	-26.04 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30326 GHz	-42.03 dBm	-29.03 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-26.00 dBm	-13.00 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30531 GHz	18.39 dBm	-11.61 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-60.45 dBm	-47.45 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31194 GHz	-41.76 dBm	-28.76 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32029 GHz	-54.02 dBm	-29.02 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32782 GHz	-54.10 dBm	-23.10 dB

Date: 19.SEP.2017 20:49:29

Highest Band Edge / 1 RB

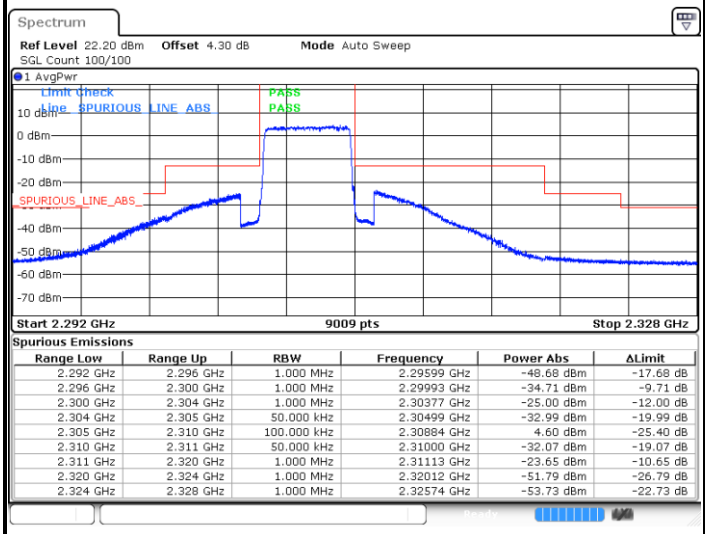


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29404 GHz	-54.24 dBm	-23.24 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29960 GHz	-53.88 dBm	-28.88 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30617 GHz	-40.38 dBm	-27.38 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-59.73 dBm	-46.73 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31463 GHz	19.12 dBm	-10.88 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-26.26 dBm	-13.26 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31890 GHz	-39.56 dBm	-26.56 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-49.85 dBm	-24.85 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32495 GHz	-53.71 dBm	-22.71 dB

Date: 19.SEP.2017 20:55:59

Lowest Band Edge / Full RB

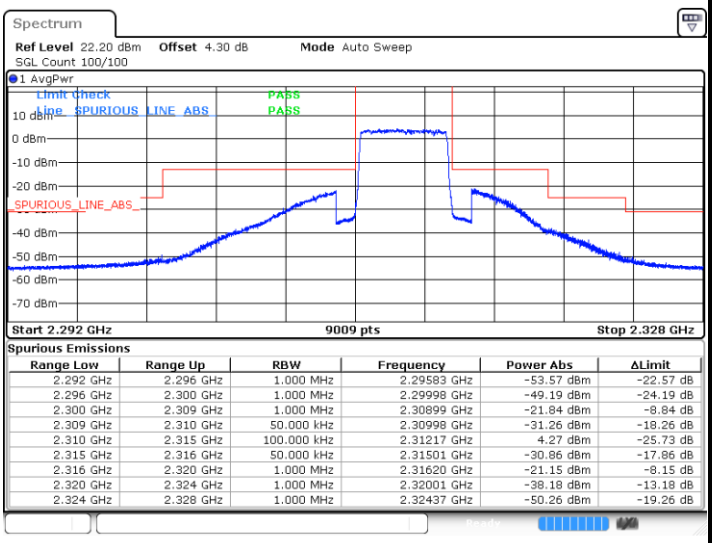


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-48.68 dBm	-17.68 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29993 GHz	-34.71 dBm	-9.71 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30377 GHz	-25.00 dBm	-12.00 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30499 GHz	-32.99 dBm	-19.99 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30884 GHz	4.60 dBm	-25.40 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-32.07 dBm	-19.07 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31113 GHz	-23.65 dBm	-10.65 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32012 GHz	-51.79 dBm	-26.79 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32574 GHz	-53.73 dBm	-22.73 dB

Date: 19.SEP.2017 20:51:18

Highest Band Edge / Full RB



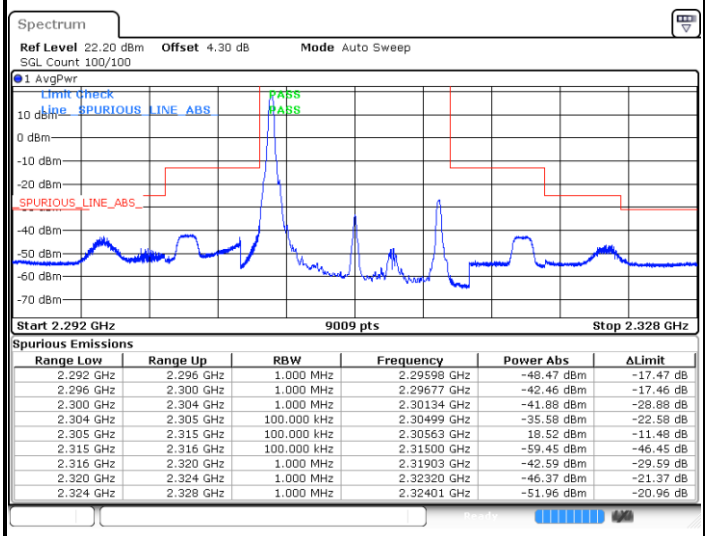
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29583 GHz	-53.57 dBm	-22.57 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29998 GHz	-49.19 dBm	-24.19 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30899 GHz	-21.84 dBm	-8.84 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30998 GHz	-31.26 dBm	-18.26 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31217 GHz	4.27 dBm	-25.73 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31501 GHz	-30.86 dBm	-17.86 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31620 GHz	-21.15 dBm	-8.15 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-38.18 dBm	-13.18 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32437 GHz	-50.26 dBm	-19.26 dB

Date: 19.SEP.2017 20:53:53

LTE Band 30 / 10MHz / QPSK

Lowest Band Edge / 1 RB

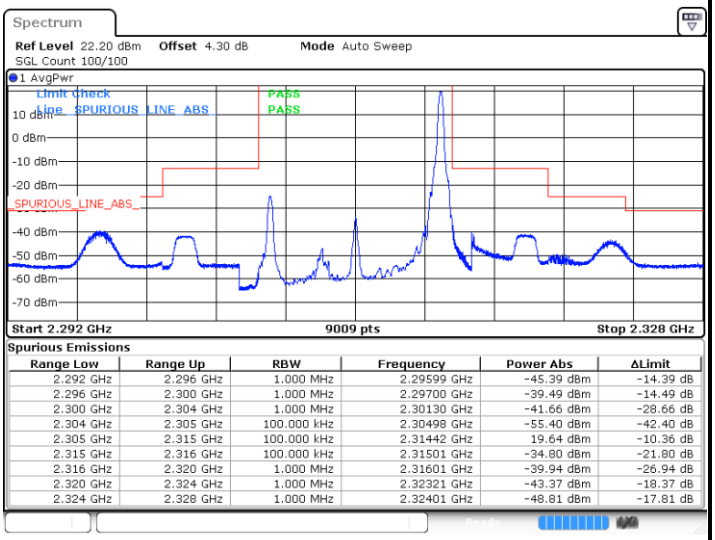


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29598 GHz	-48.47 dBm	-17.47 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29677 GHz	-42.46 dBm	-17.46 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30134 GHz	-41.88 dBm	-28.88 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-35.58 dBm	-22.58 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30563 GHz	18.52 dBm	-11.48 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-59.45 dBm	-46.45 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31903 GHz	-42.59 dBm	-29.59 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32320 GHz	-46.37 dBm	-21.37 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-51.96 dBm	-20.96 dB

Date: 19.SEP.2017 20:30:38

Highest Band Edge / 1 RB

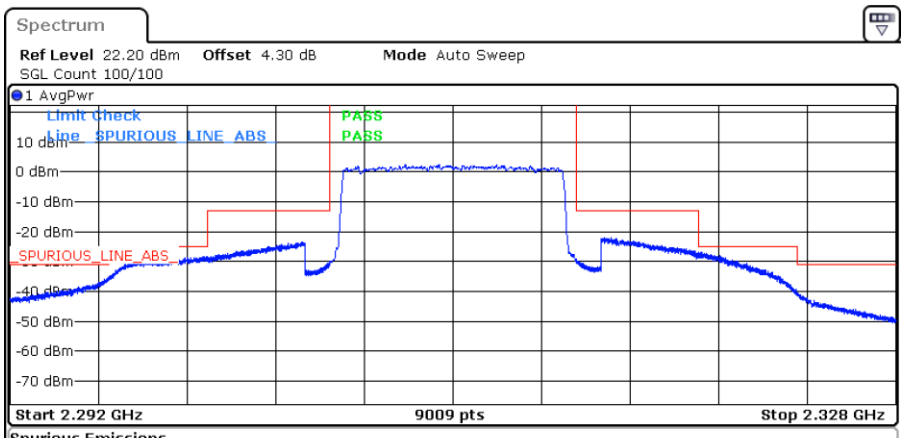


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-45.39 dBm	-14.39 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29700 GHz	-39.49 dBm	-14.49 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30130 GHz	-41.66 dBm	-28.66 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30498 GHz	-55.40 dBm	-42.40 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31442 GHz	19.64 dBm	-10.36 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-34.80 dBm	-21.80 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-39.94 dBm	-26.94 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32321 GHz	-43.37 dBm	-18.37 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-48.81 dBm	-17.81 dB

Date: 19.SEP.2017 20:35:31

Band Edge / Full RB



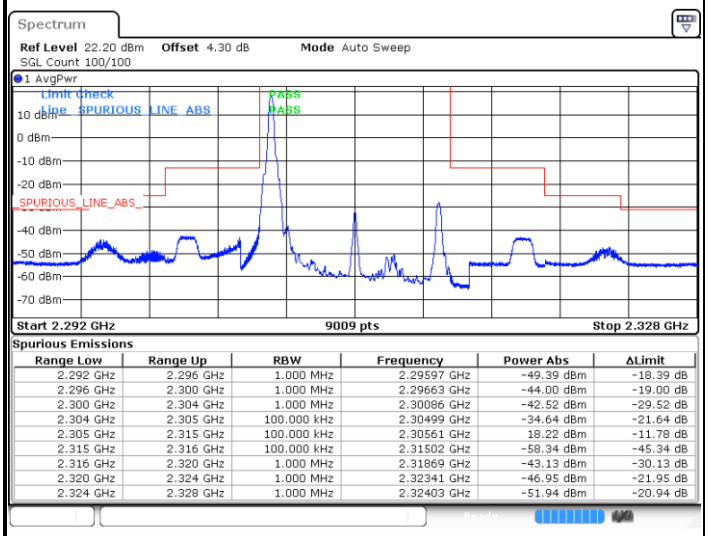
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29600 GHz	-35.26 dBm	-4.26 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29995 GHz	-28.24 dBm	-3.24 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30385 GHz	-23.41 dBm	-10.41 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-30.33 dBm	-17.33 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30806 GHz	2.30 dBm	-27.70 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-29.25 dBm	-16.25 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31641 GHz	-22.07 dBm	-9.07 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32008 GHz	-26.79 dBm	-1.79 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-40.40 dBm	-9.40 dB

Date: 19.SEP.2017 20:37:27

LTE Band 30 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

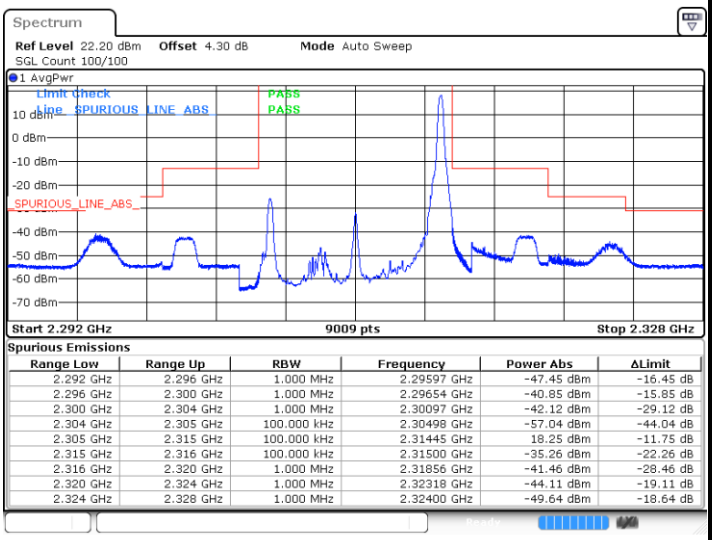


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29597 GHz	-49.39 dBm	-18.39 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29663 GHz	-44.00 dBm	-19.00 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30086 GHz	-42.52 dBm	-29.52 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-34.64 dBm	-21.64 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30561 GHz	18.22 dBm	-11.78 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31502 GHz	-58.34 dBm	-45.34 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31869 GHz	-43.13 dBm	-30.13 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32341 GHz	-46.95 dBm	-21.95 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32403 GHz	-51.94 dBm	-20.94 dB

Date: 19.SEP.2017 20:31:00

Highest Band Edge / 1 RB

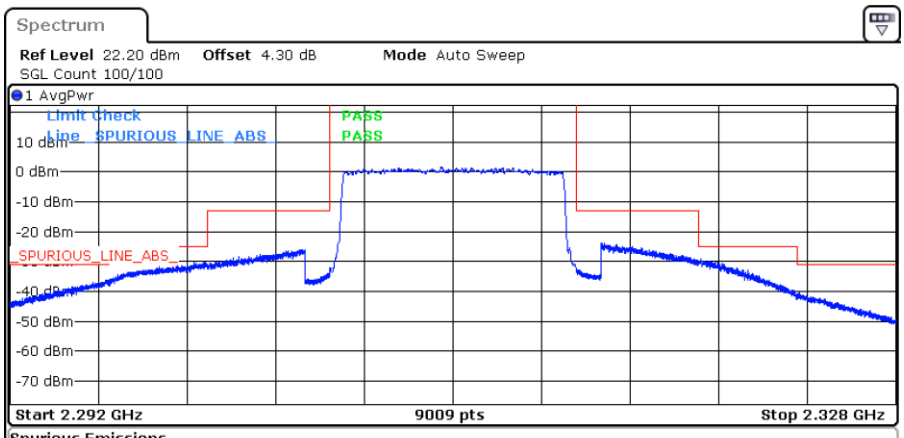


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29597 GHz	-47.45 dBm	-16.45 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29654 GHz	-40.85 dBm	-15.85 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30097 GHz	-42.12 dBm	-29.12 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30498 GHz	-57.04 dBm	-44.04 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31445 GHz	18.25 dBm	-11.75 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-35.26 dBm	-22.26 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31856 GHz	-41.46 dBm	-28.46 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32318 GHz	-44.11 dBm	-19.11 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32400 GHz	-49.64 dBm	-18.64 dB

Date: 19.SEP.2017 20:35:54

Band Edge / Full RB



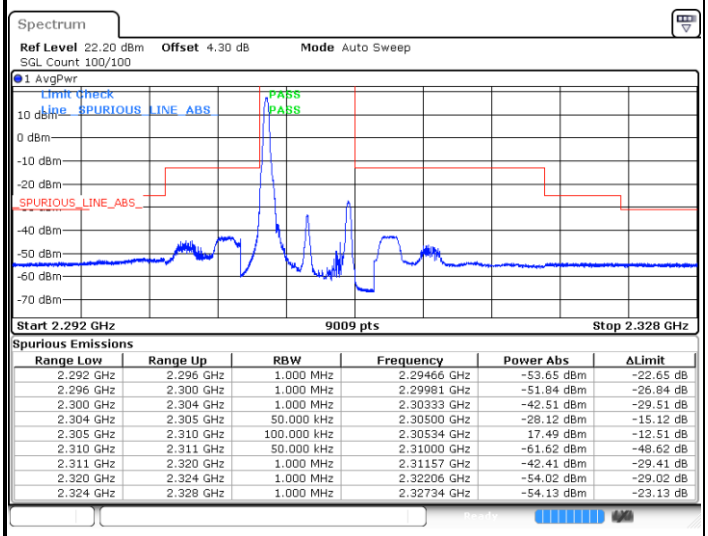
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29600 GHz	-36.15 dBm	-5.15 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29948 GHz	-30.20 dBm	-5.20 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30385 GHz	-26.00 dBm	-13.00 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-33.27 dBm	-20.27 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30953 GHz	1.46 dBm	-28.54 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-32.14 dBm	-19.14 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31608 GHz	-23.85 dBm	-10.85 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32009 GHz	-29.15 dBm	-4.15 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32409 GHz	-40.48 dBm	-9.48 dB

Date: 19.SEP.2017 20:37:03

LTE Band 30 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

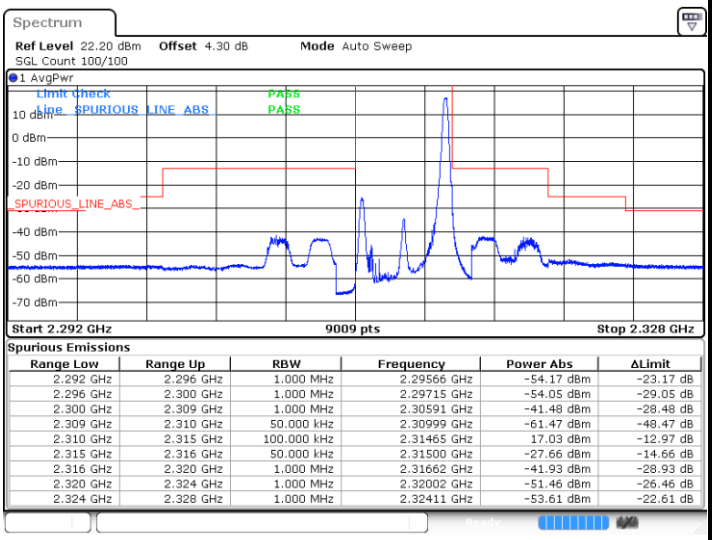


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29466 GHz	-53.65 dBm	-22.65 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29981 GHz	-51.84 dBm	-26.84 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30333 GHz	-42.51 dBm	-29.51 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-28.12 dBm	-15.12 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30534 GHz	17.49 dBm	-12.51 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-61.62 dBm	-48.62 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31157 GHz	-42.41 dBm	-29.41 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32206 GHz	-54.02 dBm	-29.02 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32734 GHz	-54.13 dBm	-23.13 dB

Date: 19.SEP.2017 20:50:08

Highest Band Edge / 1 RB

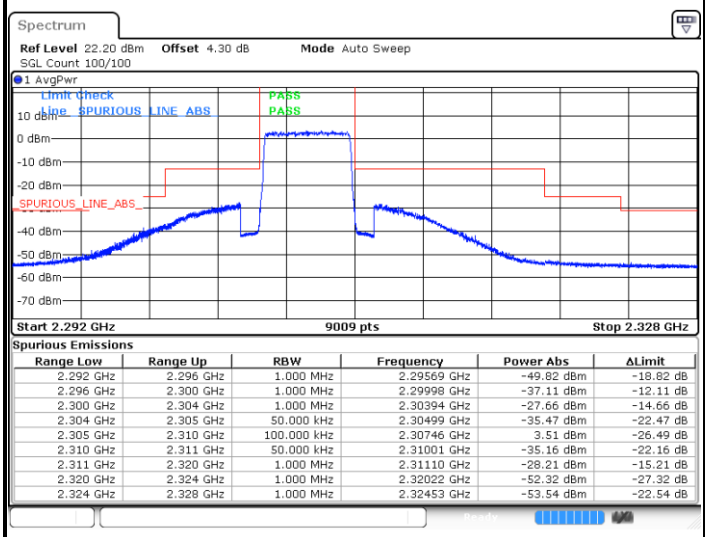


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29566 GHz	-54.17 dBm	-23.17 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29715 GHz	-54.05 dBm	-29.05 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30591 GHz	-41.48 dBm	-28.48 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30999 GHz	-61.47 dBm	-48.47 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31465 GHz	17.03 dBm	-12.97 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-27.66 dBm	-14.66 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31662 GHz	-41.93 dBm	-28.93 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32002 GHz	-51.46 dBm	-26.46 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32411 GHz	-53.61 dBm	-22.61 dB

Date: 19.SEP.2017 20:55:13

Lowest Band Edge / Full RB

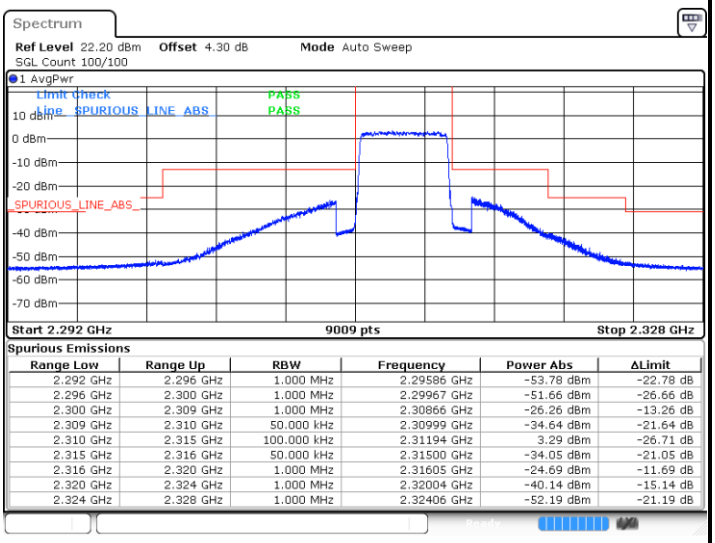


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29569 GHz	-49.82 dBm	-18.82 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29998 GHz	-37.11 dBm	-12.11 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30394 GHz	-27.66 dBm	-14.66 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30499 GHz	-35.47 dBm	-22.47 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30746 GHz	3.51 dBm	-26.49 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-35.16 dBm	-22.16 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31110 GHz	-28.21 dBm	-15.21 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32022 GHz	-52.32 dBm	-27.32 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32453 GHz	-53.54 dBm	-22.54 dB

Date: 19.SEP.2017 20:50:44

Highest Band Edge / Full RB



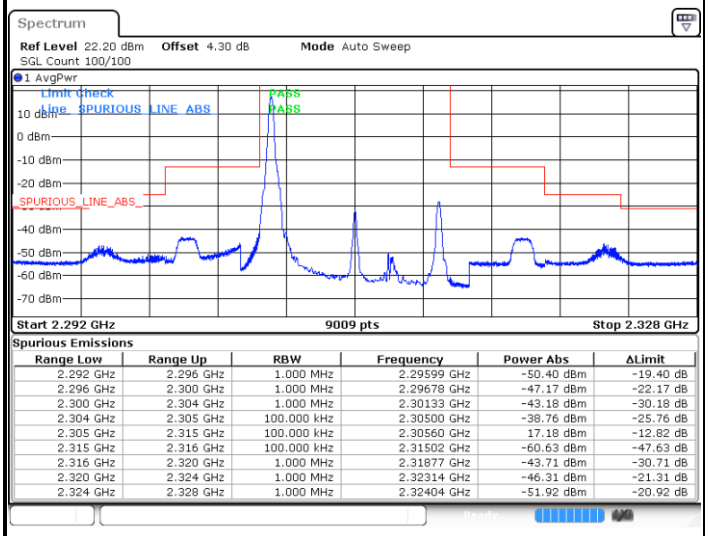
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29586 GHz	-53.78 dBm	-22.78 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29967 GHz	-51.66 dBm	-26.66 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30866 GHz	-26.26 dBm	-13.26 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30999 GHz	-34.64 dBm	-21.64 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31194 GHz	3.29 dBm	-26.71 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-34.05 dBm	-21.05 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31605 GHz	-24.69 dBm	-11.69 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32004 GHz	-40.14 dBm	-15.14 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32406 GHz	-52.19 dBm	-21.19 dB

Date: 19.SEP.2017 20:54:38

LTE Band 30 / 10MHz / 64QAM

Band Edge / 1 RB

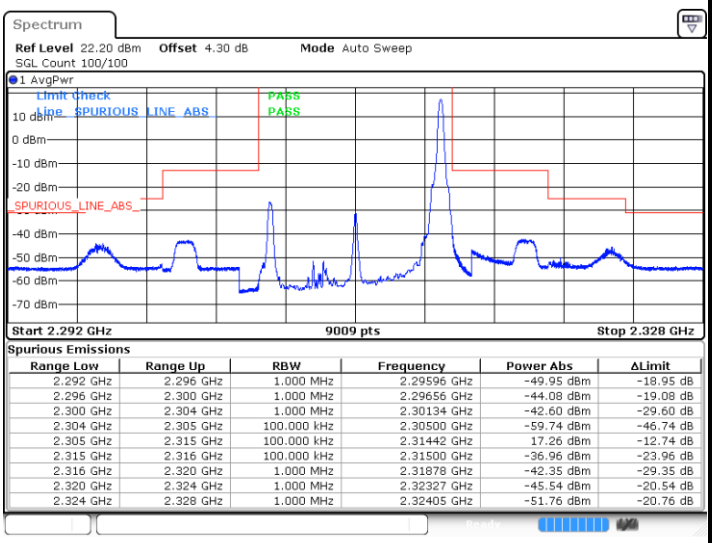


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-50.40 dBm	-19.40 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29678 GHz	-47.17 dBm	-22.17 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30133 GHz	-43.18 dBm	-30.18 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-38.76 dBm	-25.76 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30560 GHz	17.18 dBm	-12.82 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31502 GHz	-60.63 dBm	-47.63 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31877 GHz	-43.71 dBm	-30.71 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32314 GHz	-46.31 dBm	-21.31 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32404 GHz	-51.92 dBm	-20.92 dB

Date: 19.SEP.2017 20:30:06

Band Edge / 1 RB

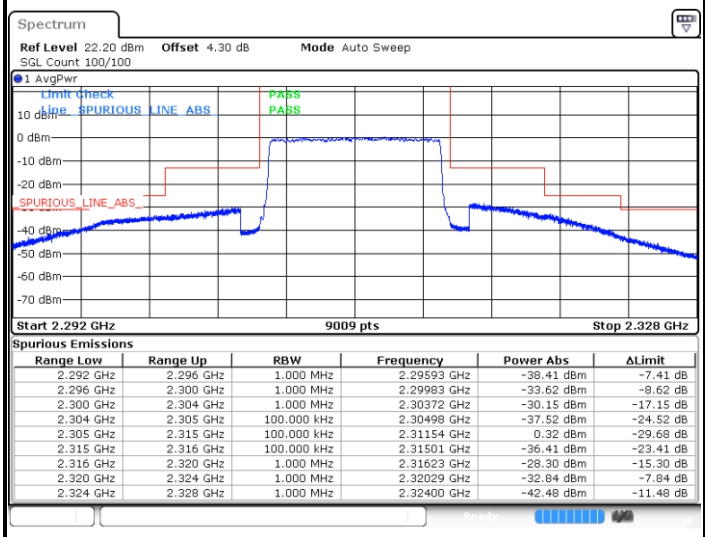


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29596 GHz	-49.95 dBm	-18.95 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29656 GHz	-44.08 dBm	-19.08 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30134 GHz	-42.60 dBm	-29.60 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-59.74 dBm	-46.74 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31442 GHz	17.26 dBm	-12.74 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-36.96 dBm	-23.96 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31878 GHz	-42.35 dBm	-29.35 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32327 GHz	-45.54 dBm	-20.54 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32405 GHz	-51.76 dBm	-20.76 dB

Date: 19.SEP.2017 20:36:18

Band Edge / Full RB



Spurious Emissions

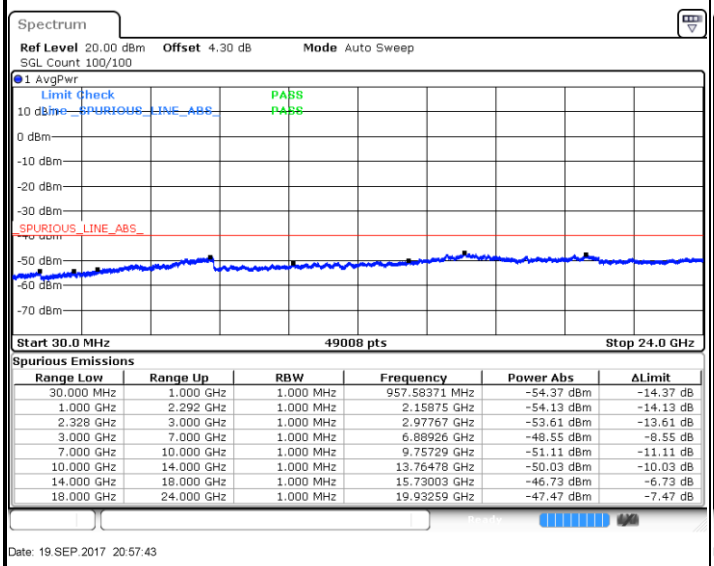
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29593 GHz	-38.41 dBm	-7.41 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29983 GHz	-33.62 dBm	-8.62 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30372 GHz	-30.15 dBm	-17.15 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30498 GHz	-37.52 dBm	-24.52 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31154 GHz	0.32 dBm	-29.68 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-36.41 dBm	-23.41 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31623 GHz	-28.30 dBm	-15.30 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32029 GHz	-32.84 dBm	-7.84 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32400 GHz	-42.48 dBm	-11.48 dB

Date: 19.SEP.2017 20:36:42

Conducted Spurious Emission

LTE Band 30 / 5MHz

Lowest Channel / QPSK

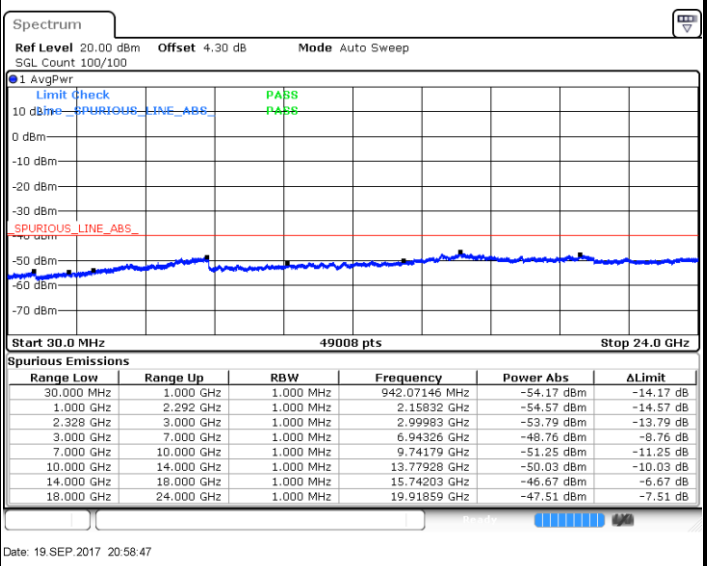


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	957.58371 MHz	-54.37 dBm	-14.37 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.15875 GHz	-54.13 dBm	-14.13 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.97767 GHz	-53.61 dBm	-13.61 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88926 GHz	-48.55 dBm	-8.55 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.75729 GHz	-51.11 dBm	-11.11 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.76478 GHz	-50.03 dBm	-10.03 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.73003 GHz	-46.73 dBm	-6.73 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.93259 GHz	-47.47 dBm	-7.47 dB

Date: 19.SEP.2017 20:57:43

Lowest Channel / 16QAM

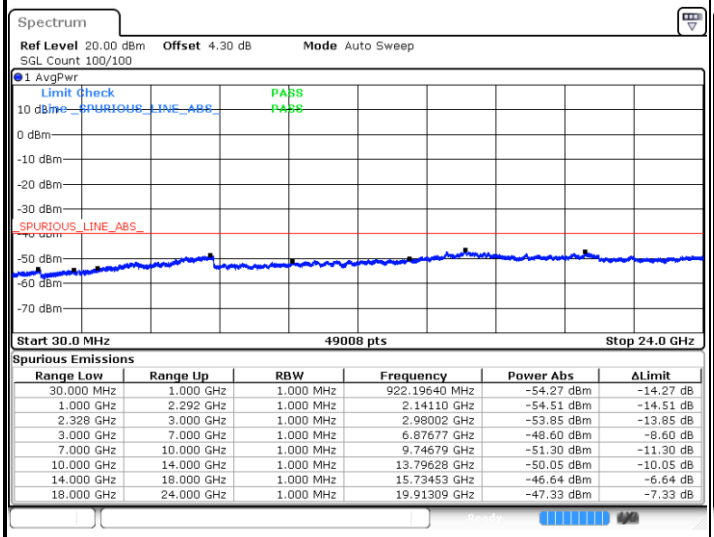


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	942.07146 MHz	-54.17 dBm	-14.17 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.15832 GHz	-54.57 dBm	-14.57 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.99983 GHz	-53.79 dBm	-13.79 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94326 GHz	-48.76 dBm	-8.76 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74179 GHz	-51.25 dBm	-11.25 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.77928 GHz	-50.03 dBm	-10.03 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74203 GHz	-46.67 dBm	-6.67 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.91859 GHz	-47.51 dBm	-7.51 dB

Date: 19.SEP.2017 20:58:47

Middle Channel / QPSK

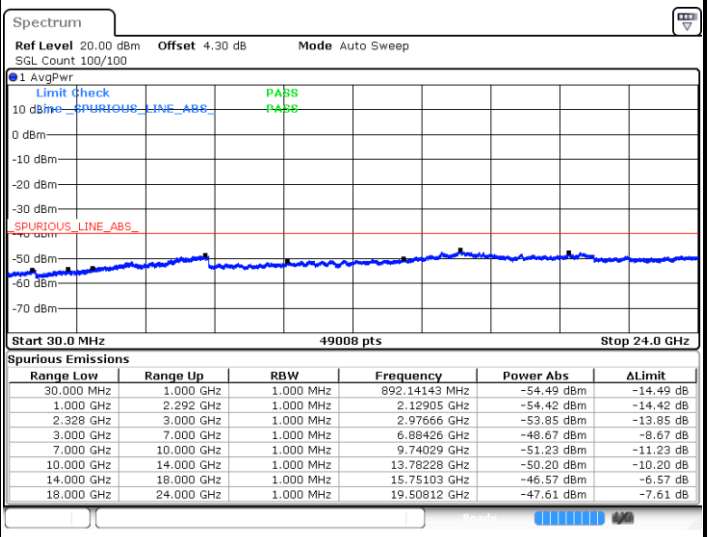


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	922.19640 MHz	-54.27 dBm	-14.27 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.14110 GHz	-54.51 dBm	-14.51 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.98002 GHz	-53.85 dBm	-13.85 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87677 GHz	-48.60 dBm	-8.60 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74679 GHz	-51.30 dBm	-11.30 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.79628 GHz	-50.05 dBm	-10.05 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.73453 GHz	-46.64 dBm	-6.64 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.91309 GHz	-47.33 dBm	-7.33 dB

Date: 19.SEP.2017 21:03:14

Middle Channel / 16QAM



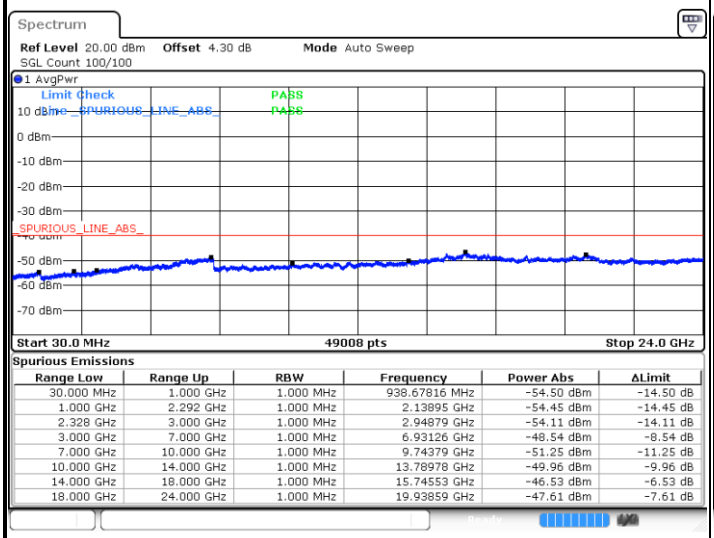
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	892.14143 MHz	-54.49 dBm	-14.49 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.12905 GHz	-54.42 dBm	-14.42 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.97666 GHz	-53.85 dBm	-13.85 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88426 GHz	-48.67 dBm	-8.67 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74029 GHz	-51.23 dBm	-11.23 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.78228 GHz	-50.20 dBm	-10.20 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.75103 GHz	-46.57 dBm	-6.57 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.50812 GHz	-47.61 dBm	-7.61 dB

Date: 19.SEP.2017 21:02:28

LTE Band 30 / 5MHz

Highest Channel / QPSK

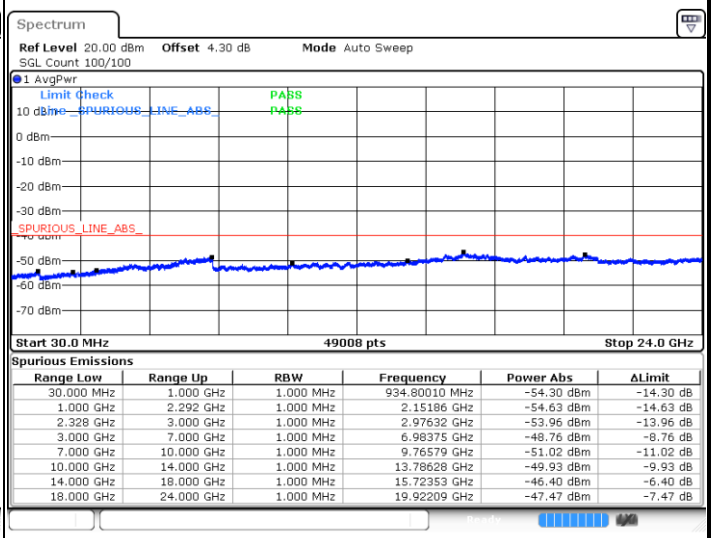


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	938.67816 MHz	-54.50 dBm	-14.50 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.13895 GHz	-54.45 dBm	-14.45 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.94879 GHz	-54.11 dBm	-14.11 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93126 GHz	-48.54 dBm	-8.54 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74379 GHz	-51.25 dBm	-11.25 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.78978 GHz	-49.96 dBm	-9.96 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74553 GHz	-46.53 dBm	-6.53 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.93859 GHz	-47.61 dBm	-7.61 dB

Date: 19.SEP.2017 21:04:17

Highest Channel / 16QAM



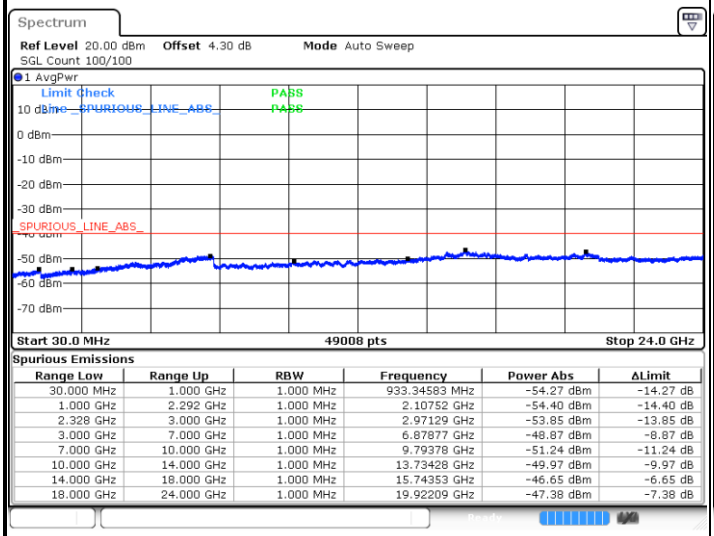
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	934.80010 MHz	-54.30 dBm	-14.30 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.15186 GHz	-54.63 dBm	-14.63 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.97632 GHz	-53.96 dBm	-13.96 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.98375 GHz	-48.76 dBm	-8.76 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.76579 GHz	-51.02 dBm	-11.02 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.78628 GHz	-49.93 dBm	-9.93 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.72353 GHz	-46.40 dBm	-6.40 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.92209 GHz	-47.47 dBm	-7.47 dB

Date: 19.SEP.2017 21:05:01

LTE Band 30 / 10MHz

Middle Channel / QPSK

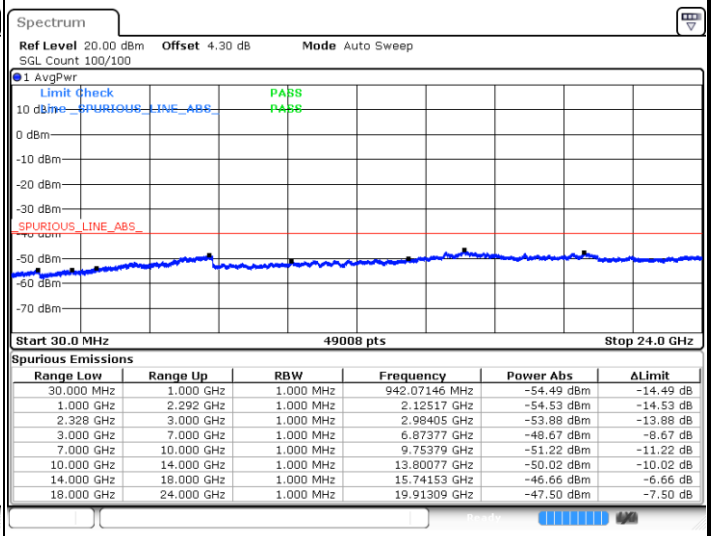


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	933.34583 MHz	-54.27 dBm	-14.27 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.10752 GHz	-54.40 dBm	-14.40 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.97129 GHz	-53.85 dBm	-13.85 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87877 GHz	-48.87 dBm	-8.87 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.79378 GHz	-51.24 dBm	-11.24 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.73428 GHz	-49.97 dBm	-9.97 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74353 GHz	-46.65 dBm	-6.65 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.92209 GHz	-47.38 dBm	-7.38 dB

Date: 19.SEP.2017 20:38:38

Middle Channel / 16QAM



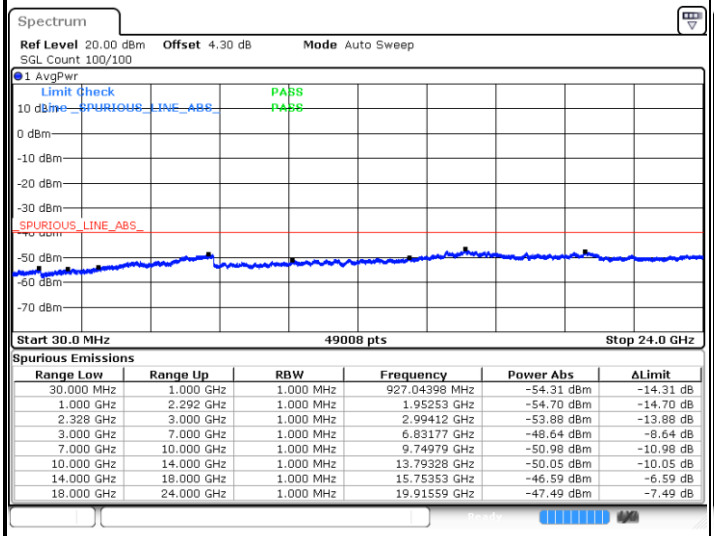
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	942.07146 MHz	-54.49 dBm	-14.49 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.12517 GHz	-54.53 dBm	-14.53 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.98405 GHz	-53.88 dBm	-13.88 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87377 GHz	-48.67 dBm	-8.67 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.75379 GHz	-51.22 dBm	-11.22 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.80077 GHz	-50.02 dBm	-10.02 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74153 GHz	-46.66 dBm	-6.66 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.91309 GHz	-47.50 dBm	-7.50 dB

Date: 19.SEP.2017 20:39:37

LTE Band 30 / 5MHz

Lowest Channel / 64QAM

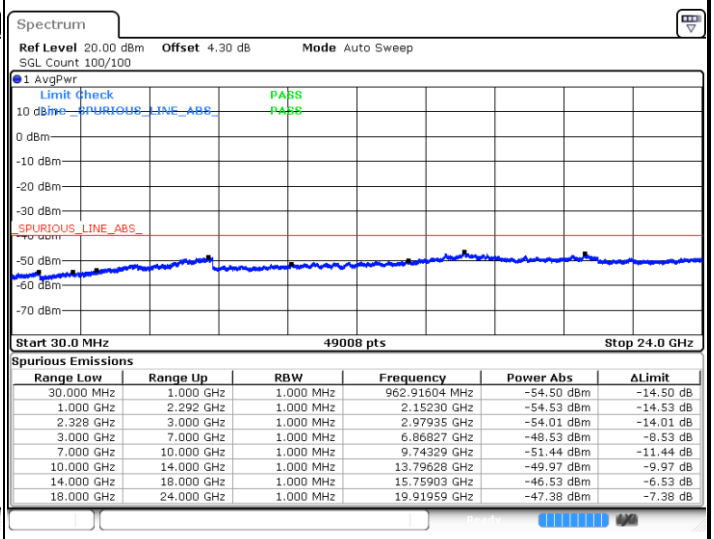


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	927.04398 MHz	-54.31 dBm	-14.31 dB
1.000 GHz	2.292 GHz	1.000 MHz	1.95253 GHz	-54.70 dBm	-14.70 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.99412 GHz	-53.88 dBm	-13.88 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.83177 GHz	-48.64 dBm	-8.64 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74979 GHz	-50.98 dBm	-10.98 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.79328 GHz	-50.05 dBm	-10.05 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.75353 GHz	-46.59 dBm	-6.59 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.91559 GHz	-47.49 dBm	-7.49 dB

Date: 19.SEP.2017 20:59:57

Middle Channel / 64QAM

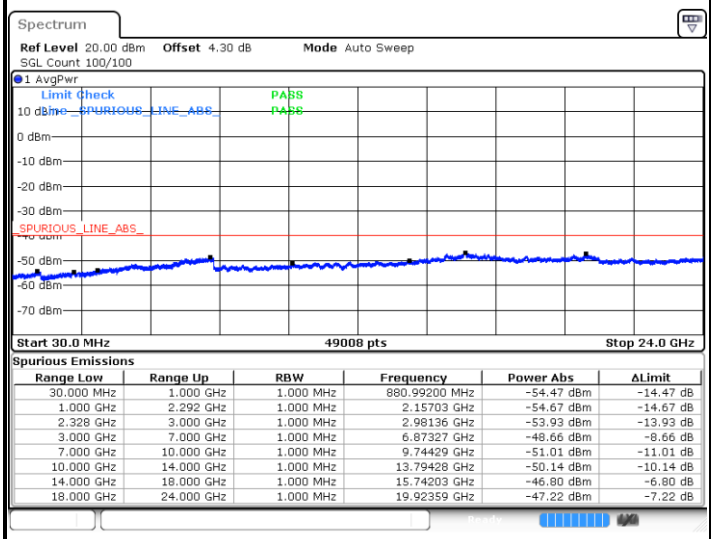


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	962.91604 MHz	-54.50 dBm	-14.50 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.15230 GHz	-54.53 dBm	-14.53 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.97935 GHz	-54.01 dBm	-14.01 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86827 GHz	-48.53 dBm	-8.53 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74329 GHz	-51.44 dBm	-11.44 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.79628 GHz	-49.97 dBm	-9.97 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.75903 GHz	-46.53 dBm	-6.53 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.91959 GHz	-47.38 dBm	-7.38 dB

Date: 19.SEP.2017 21:01:34

Highest Channel / 64QAM



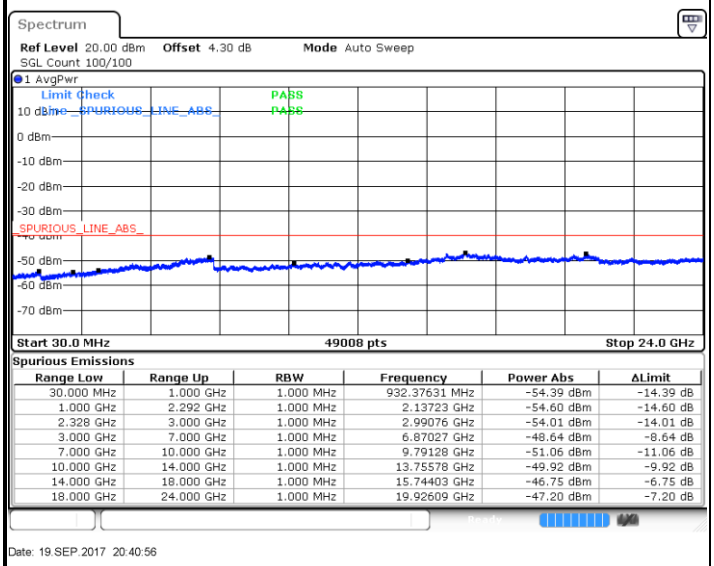
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	880.99200 MHz	-54.47 dBm	-14.47 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.15703 GHz	-54.67 dBm	-14.67 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.98136 GHz	-53.93 dBm	-13.93 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87327 GHz	-48.66 dBm	-8.66 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.74429 GHz	-51.01 dBm	-11.01 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.79428 GHz	-50.14 dBm	-10.14 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74203 GHz	-46.80 dBm	-6.80 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.92359 GHz	-47.22 dBm	-7.22 dB

Date: 19.SEP.2017 21:05:51

LTE Band 30 / 10MHz

Middle Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	932.37631 MHz	-54.39 dBm	-14.39 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.13723 GHz	-54.60 dBm	-14.60 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.99076 GHz	-54.01 dBm	-14.01 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87027 GHz	-48.64 dBm	-8.64 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.79128 GHz	-51.06 dBm	-11.06 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.75578 GHz	-49.92 dBm	-9.92 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.74403 GHz	-46.75 dBm	-6.75 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.92609 GHz	-47.20 dBm	-7.20 dB

Frequency Stability

Test Conditions		LTE Band 30 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0002	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0019	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0022	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0017	
20	Battery End Point	0.0016	

Note:

1. Normal Voltage =3.8 V.；Battery End Point (BEP) =3.4 V.；Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

For External Antenna

LTE Band 30 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4608	-67.55	-40	-27.55	-51.34	-57.91	1.65	-7.99	H
	6918	-59.85	-40	-19.85	-51.72	-69.51	2.01	11.67	H
	9225	-62.07	-40	-22.07	-56.89	-72.71	2.94	13.59	H
	4608	-66.50	-40	-26.50	-52.08	-56.86	1.65	-7.99	V
	6918	-63.95	-40	-23.95	-53.43	-73.61	2.01	11.67	V
	9225	-63.09	-40	-23.09	-56.42	-73.73	2.94	13.59	V
Middle	4614	-68.05	-40	-28.05	-51.84	-58.41	1.65	-7.99	H
	6924	-62.18	-40	-22.18	-54.05	-71.84	2.01	11.67	H
	9234	-61.78	-40	-21.78	-56.60	-72.42	2.94	13.59	H
	4614	-67.01	-40	-27.01	-52.59	-57.37	1.65	-7.99	V
	6924	-64.56	-40	-24.56	-54.04	-74.22	2.01	11.67	V
	9234	-63.72	-40	-23.72	-57.05	-74.36	2.94	13.59	V
Highest	4620	-68.64	-40	-28.64	-52.43	-59.00	1.65	-7.99	H
	6930	-61.63	-40	-21.63	-53.50	-71.29	2.01	11.67	H
	9243	-62.00	-40	-22.00	-56.82	-72.64	2.94	13.59	H
	4620	-66.84	-40	-26.84	-52.42	-57.20	1.65	-7.99	V
	6930	-64.96	-40	-24.96	-54.44	-74.62	2.01	11.67	V
	9243	-62.95	-40	-22.95	-56.28	-73.59	2.94	13.59	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 30 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	4608	-68.10	-40	-28.10	-51.89	-58.46	1.65	-7.99	H
	6918	-60.94	-40	-20.94	-52.81	-70.60	2.01	11.67	H
	9225	-61.56	-40	-21.56	-56.38	-72.20	2.94	13.59	H
	4608	-66.78	-40	-26.78	-52.36	-57.14	1.65	-7.99	V
	6918	-65.09	-40	-25.09	-54.57	-74.75	2.01	11.67	V
	9225	-63.52	-40	-23.52	-56.85	-74.16	2.94	13.59	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

For Internal Antenna

LTE Band 30 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	4608	-68.63	-40	-28.63	-52.42	-58.99	1.65	-7.99	H
	6918	-62.73	-40	-22.73	-54.60	-72.39	2.01	11.67	H
	9225	-62.21	-40	-22.21	-57.03	-72.85	2.94	13.59	H
	4608	-66.83	-40	-26.83	-52.41	-57.19	1.65	-7.99	V
	6918	-66.35	-40	-26.35	-55.83	-76.01	2.01	11.67	V
	9225	-63.41	-40	-23.41	-56.74	-74.05	2.94	13.59	V
Middle	4614	-69.08	-40	-29.08	-52.87	-59.44	1.65	-7.99	H
	6924	-62.86	-40	-22.86	-54.73	-72.52	2.01	11.67	H
	9234	-62.14	-40	-22.14	-56.96	-72.78	2.94	13.59	H
	4614	-66.39	-40	-26.39	-51.97	-56.75	1.65	-7.99	V
	6924	-66.37	-40	-26.37	-55.85	-76.03	2.01	11.67	V
	9234	-63.75	-40	-23.75	-57.08	-74.39	2.94	13.59	V
Highest	4620	-69.69	-40	-29.69	-53.48	-60.05	1.65	-7.99	H
	6930	-63.43	-40	-23.43	-55.30	-73.09	2.01	11.67	H
	9243	-61.99	-40	-21.99	-56.81	-72.63	2.94	13.59	H
	4620	-67.18	-40	-27.18	-52.76	-57.54	1.65	-7.99	V
	6930	-66.80	-40	-26.80	-56.28	-76.46	2.01	11.67	V
	9243	-62.94	-40	-22.94	-56.27	-73.58	2.94	13.59	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 30 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	4608	-68.49	-40	-28.49	-52.28	-58.85	1.65	-7.99	H
	6918	-63.54	-40	-23.54	-55.41	-73.20	2.01	11.67	H
	9225	-61.55	-40	-21.55	-56.37	-72.19	2.94	13.59	H
	4608	-66.74	-40	-26.74	-52.32	-57.10	1.65	-7.99	V
	6918	-65.77	-40	-25.77	-55.25	-75.43	2.01	11.67	V
	9225	-63.55	-40	-23.55	-56.88	-74.19	2.94	13.59	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.