FCC RF Test Report

APPLICANT	:	Lenovo (Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT	:	Tablet PC
BRAND NAME	:	Lenovo
MODEL NAME	:	Lenovo Miix 630-12Q35; 81F1
FCC ID	:	O57MIIX630
STANDARD	:	FCC 47 CFR Part 2, 27D
CLASSIFICATION	:	PCS Licensed Transmitter (PCB)

The product was received on Dec. 12, 2017 and completely tested on Mar. 13, 2018. 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-603-E and shown compliance with the applicable technical standards.

This report contains data that were produced under subcontract by Laboratory SPORTON INTERNATIONAL INC.

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG7D1210C	Rev. 01	Initial issue of report	Apr. 16, 2018

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 4.55 dB at 9216.000 MHz

1 General Description

1.1. Applicant

Lenovo (Shanghai) Electronics Technology Co., Ltd.
NO.68 BUILDING, 199 FENJU RD, China (Shanghai) Pilot Free Trade Zone, 200131, CHINA

1.2. Manufacturer

Lenovo PC HK Limited
23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Tablet PC
Brand Name	Lenovo
Model Name	Lenovo Miix 630-12Q35; 81F1
FCC ID	O57MIIX630
EUT supports Radios application	WCDMA/HSPA/HSPA+(16QAM uplink is not supported)/ DC-HSDPA/LTE WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0 + EDR/Bluetooth v4.0 LE/ Bluetooth v4.1 LE / Bluetooth v 4.2 LE
IMEI Code	Conducted: N/A Radiation: N/A
HW Version	81835_1_14
SW Version	16299.192 windows 10S
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 : 23.53 dBm
Antenna Type/Gain	Monopole Antenna / -3.80dBi
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	4M51G7D	-	0.2223	4M51W7D	-	0.1871
10	2310.0	9M03G7D	0.0017	0.2254	8M99W7D	-	0.1884

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	-	0.1368
10	2310.0	8M99W7D	-	0.1435

1.7. Testing Site

Sporton International (Kunshan) Inc. 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	630927

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

SPORTON INTERNATIONAL INC. is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and under the FCC-recognized accredited testing laboratories by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.		
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist. Taoyuan City Taiwan Tel: 886-3-327-3456 FAX: +886-3-327-0978		
Test Site No.	**Sporton Site No.**	**FCC designation No.**	**FCC Test Firm Registration No.**
	03CH07-HY	TW1190	553509

Note:

1. The test site complies with ANSI C63.4 2014 requirement.
2. Test data subcontracted: Radiated spurious emission in section 4.4 of this report.

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-603-E
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03

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

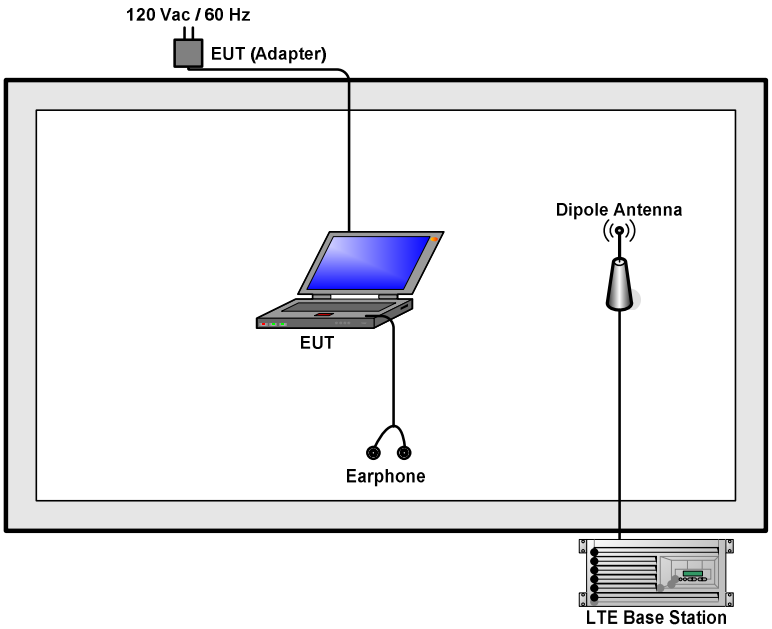
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03 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



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
3.	Earphone	Lenovo	SH100	N/A	Unshielded,1.2m	N/A

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 5.5dB.

Example :

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

= 5.5 (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

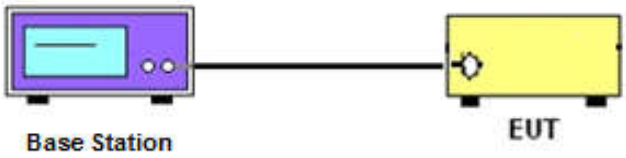
3 Conducted Test Items

3.1 Measuring Instruments

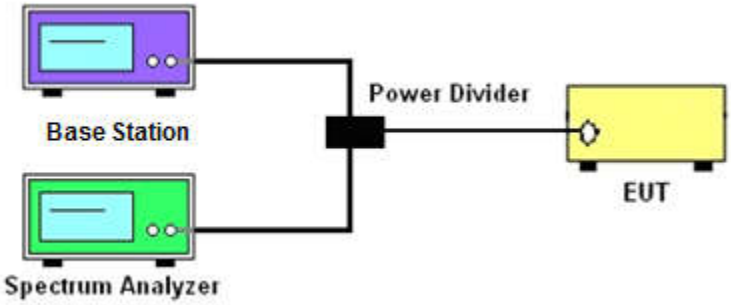
See list of measuring instruments of this test report.

3.2 Test Setup

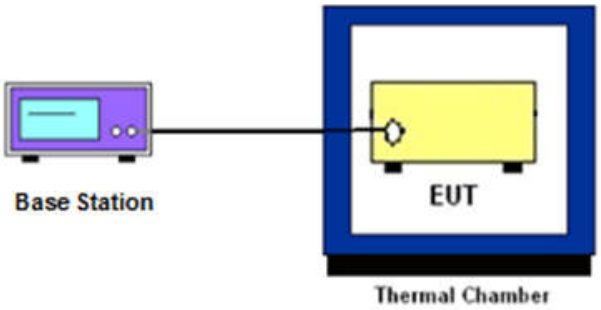
3.2.1 Conducted Output Power



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 D01 v03 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.

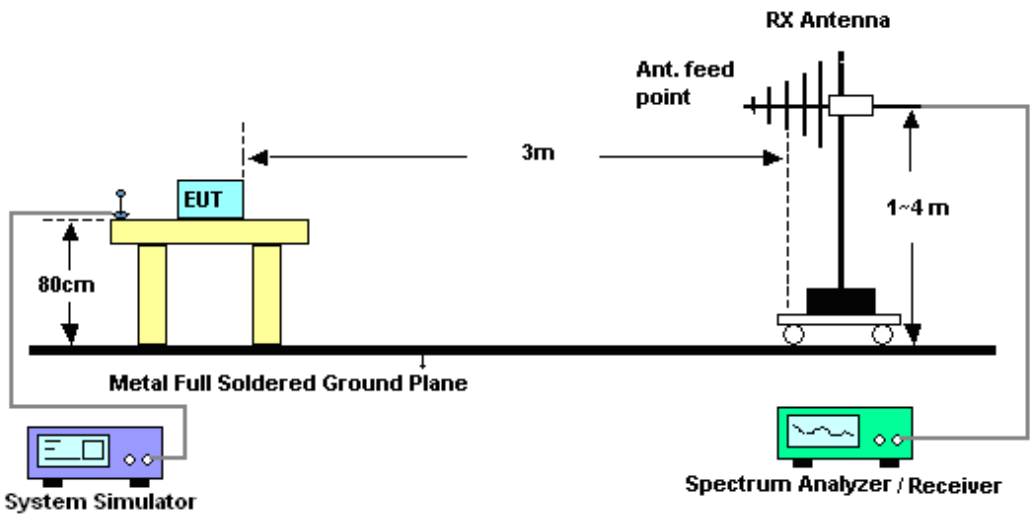
4 Radiated Test Items

4.1 Measuring Instruments

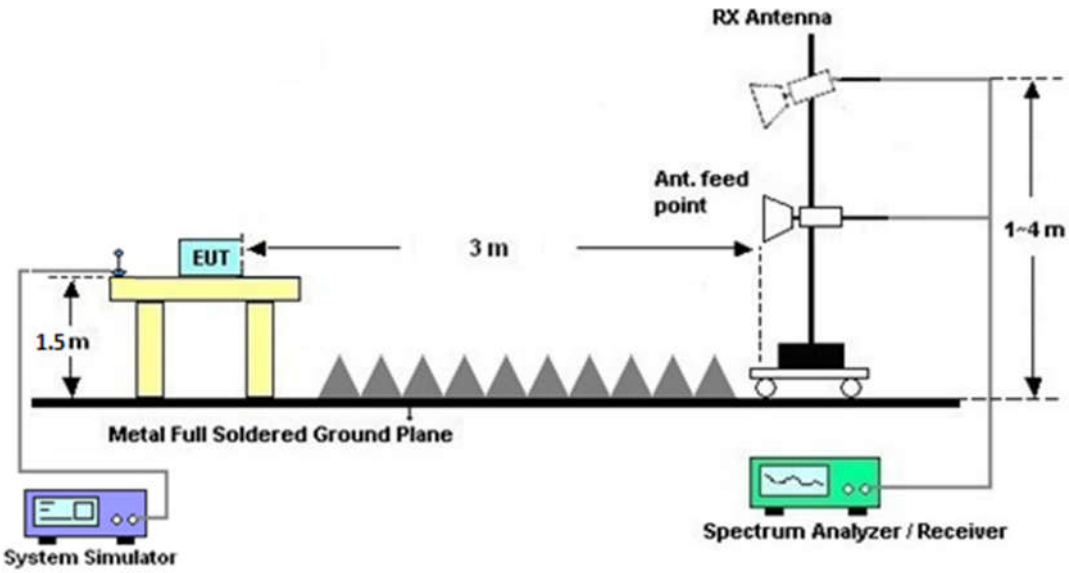
See list of measuring instruments of this test report.

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-603-E. 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	Jan. 07, 2018	Aug. 07, 2018	Conducted (TH01-KS)
Radio communication analyzer	Anritsu	MT8820C	6201300652	2G/3G/LTE_ full band	Aug. 08, 2017	Jan. 07, 2018	Aug. 07, 2018	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 12, 2017	Jan. 07, 2018	Oct. 11, 2018	Conducted (TH01-KS)
Bilog Antenna	TESEQ	CBL 6111D&008	35419&03	30MHz to 1GHz	Dec. 18, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Dec. 17, 2018	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 23, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Aug. 22, 2018	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-00 101800-30-	1590075	1GHz ~ 18GHz	Apr. 25, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Apr. 24, 2018	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1GHz	Mar. 14, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Mar. 13, 2018	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~ 26.5GHz	Oct. 30, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Oct. 29, 2018	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Apr. 16, 2018	Radiation (03CH07-HY)
Controller	ChainTek	Chaintek 3000	N/A	Control Turn table	NCR	Jan. 16, 2018 ~ Mar. 13, 2018	NCR	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	NCR	Jan. 16, 2018 ~ Mar. 13, 2018	NCR	Radiation (03CH07-HY)
Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz,VSWR : 2.5:1 max	Jul. 18, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Jul. 17, 2018	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA917025 1	18GHz- 40GHz	Nov. 10, 2017	Jan. 16, 2018 ~ Mar. 13, 2018	Nov. 09, 2018	Radiation (03CH07-HY)

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))	3.1 dB

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.4 dB

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.0 dB

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	23.47	23.37	23.37
5	1	12		23.29	23.32	23.22
5	1	24		23.32	23.20	23.22
5	12	0		22.50	22.39	22.37
5	12	7		22.36	22.41	22.28
5	12	13		22.33	22.35	22.25
5	25	0		22.36	22.35	22.28
5	1	0	16-QAM	22.72	22.63	22.61
5	1	12		22.57	22.61	22.48
5	1	24		22.56	22.45	22.45
5	12	0		21.51	21.41	21.39
5	12	7		21.38	21.40	21.30
5	12	13		21.32	21.36	21.26
5	25	0		21.38	21.35	21.25
5	1	0	64QAM	21.30	21.34	21.36
5	1	12		21.29	21.28	21.25
5	1	24		21.26	21.27	21.25
5	12	0		20.18	20.16	20.15
5	12	7		20.21	20.20	20.18
5	12	13		20.17	20.13	20.10
5	25	0		20.15	20.11	20.08

10	1	0	QPSK	-	23.53	-
10	1	25			23.33	
10	1	49			23.18	
10	25	0			22.40	
10	25	12			22.39	
10	25	25			22.23	
10	50	0			22.37	
10	1	0	16-QAM		22.75	
10	1	25			22.59	
10	1	49			22.41	
10	25	0			21.41	
10	25	12			21.38	
10	25	25			21.25	
10	50	0			21.39	
10	1	0	64QAM		21.57	
10	1	25			21.52	
10	1	49			21.40	
10	25	0			20.18	
10	25	12			20.17	
10	25	25			20.14	
10	50	0			20.17	

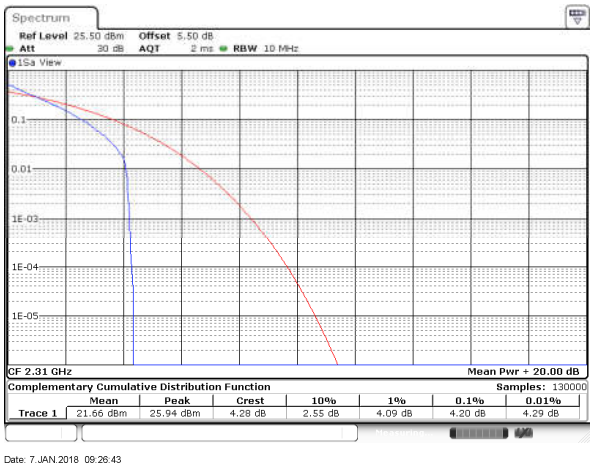
Peak-to-Average Ratio

Mode	LTE Band 30 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.2	4.81	4.93	5.86	
Highest CH	-	-	-	-	

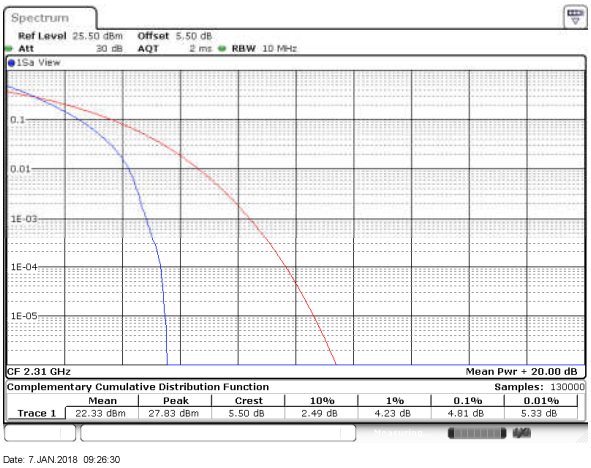
Mod.	64QAM		Limit: 13dB
RB Size	1RB	Full RB	Result
Lowest CH			PASS
Middle CH	5.1	5.83	
Highest CH			

LTE Band 30 / 10MHz / QPSK

Middle Channel / 1RB

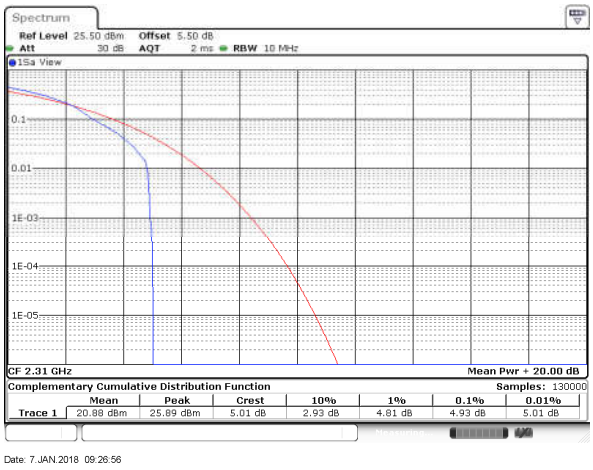


Middle Channel / Full RB

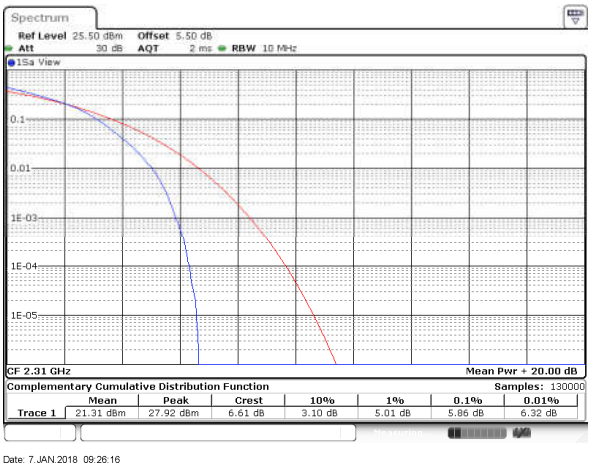


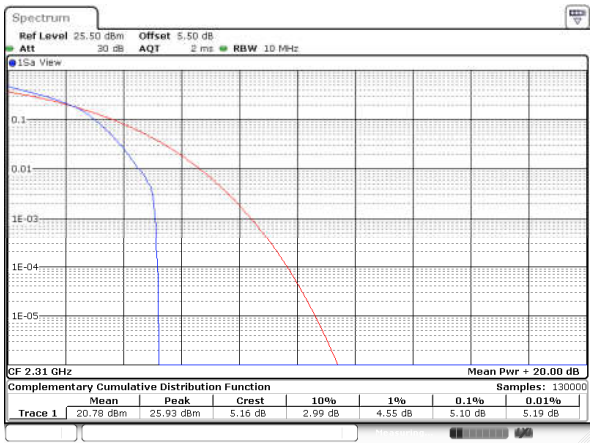
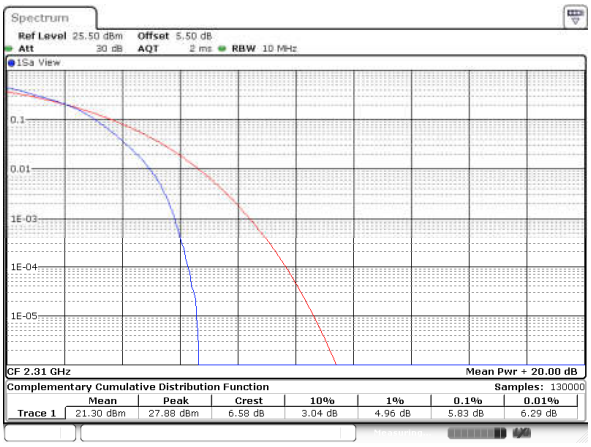
LTE Band 30 / 10MHz / 16QAM

Middle Channel / 1RB



Middle Channel / Full RB



LTE Band 30 / 10MHz / 64QAM	
Middle Channel / 1RB	**Middle Channel / Full RB**
	

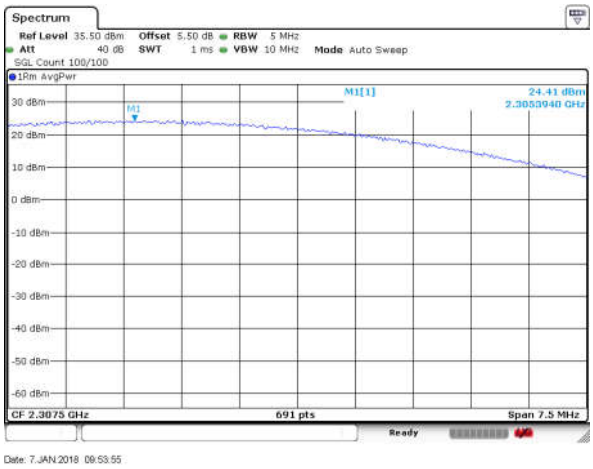
EIRP Power Density

Mode	LTE Band 30 : Conducted Power Density (dBm/5MHz)											
BW	5MHz		10MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM		64QAM					
Lowest CH	24.41	23.98			23.95							
Middle CH	24.45	24.22	24.4	23.86	23.94		23.04					
Highest CH	24.69	23.94			23.94							

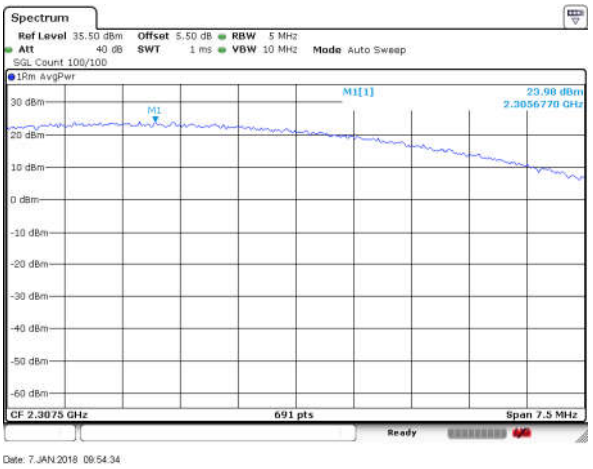
Mode	LTE Band 30 : EIRP Power Density (dBm/5MHz)											
BW	5MHz		10MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM		64QAM					
Lowest CH	20.61	20.18			20.15							
Middle CH	20.89	20.14	20.6	20.06	20.14		19.24					
Highest CH	20.65	20.42			20.14							
Antenna Gain	-3.8 dBi											
Limit	250mW / 5MHz = 24dBm / 5MHz											
Result	Pass											

LTE Band 30 / 5MHz

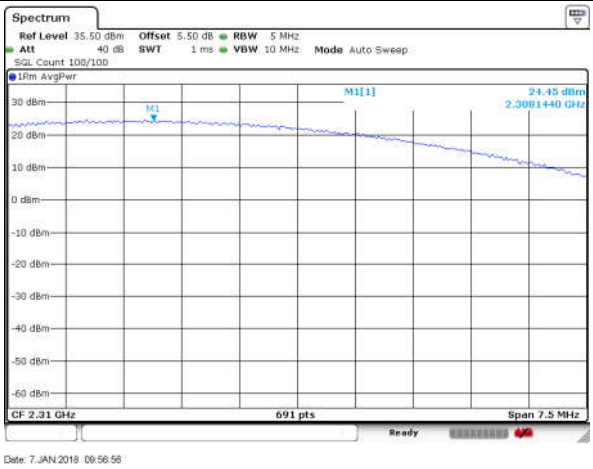
Lowest Channel / 5MHz / 1RB0 / QPSK



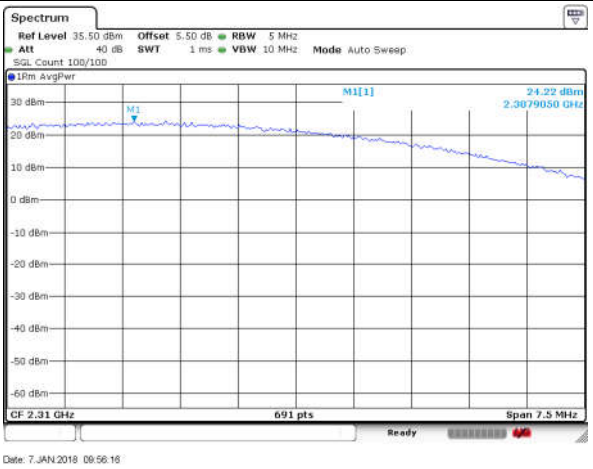
Lowest Channel / 5MHz / 1RB0 / 16QAM



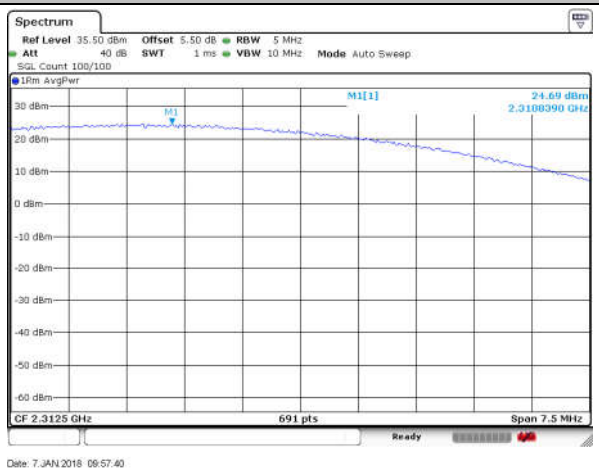
Middle Channel / 5MHz / 1RB0 / QPSK



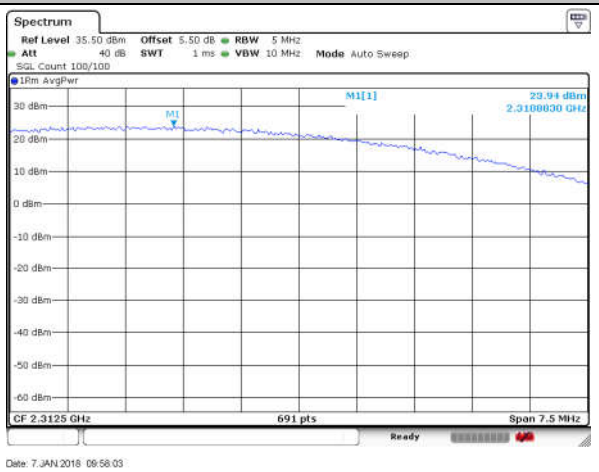
Middle Channel / 5MHz / 1RB0 / 16QAM



Highest Channel / 5MHz / 1RB0 / QPSK

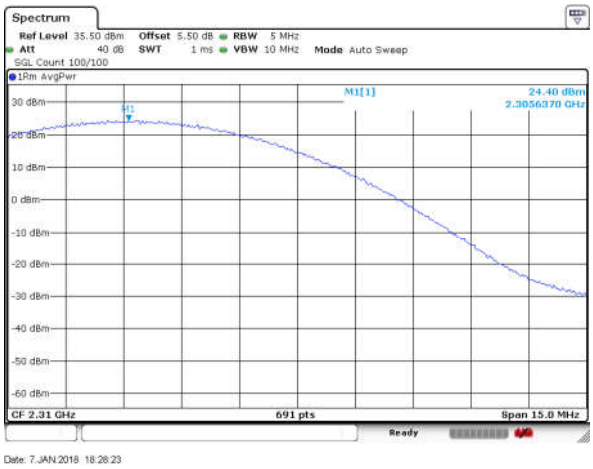


Highest Channel / 5MHz / 1RB0 / 16QAM

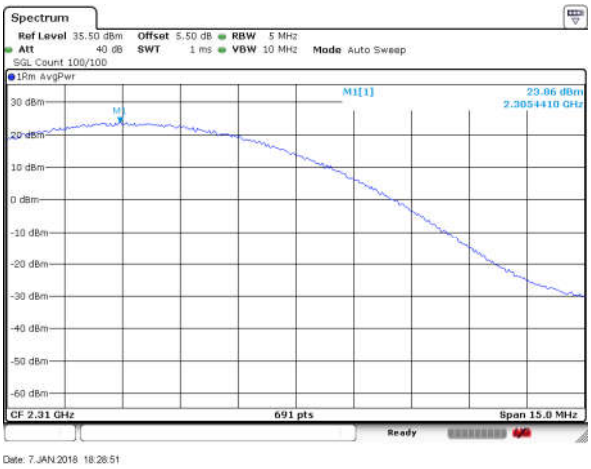


LTE Band 30 / 10MHz

Lowest Channel / 10MHz / 1RB0 / QPSK

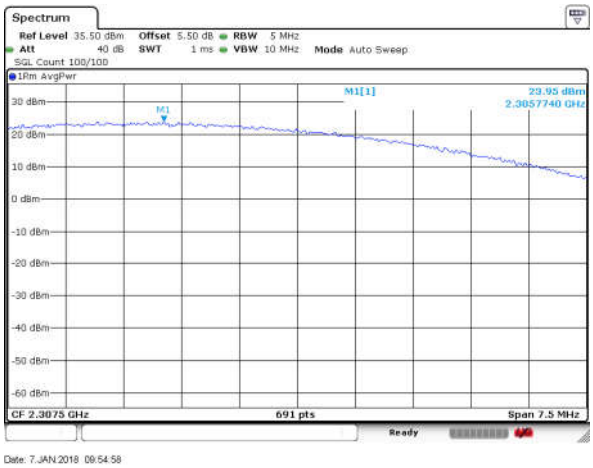


Lowest Channel / 10MHz / 1RB0 / 16QAM

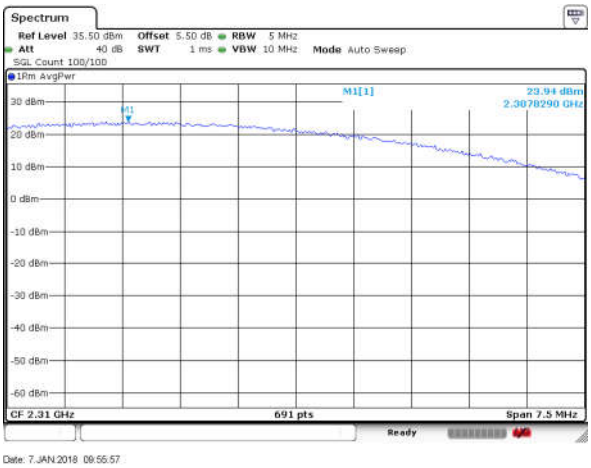


LTE Band 30 / 5MHz

Lowest Channel / 5MHz / 1RB0 / 64QAM

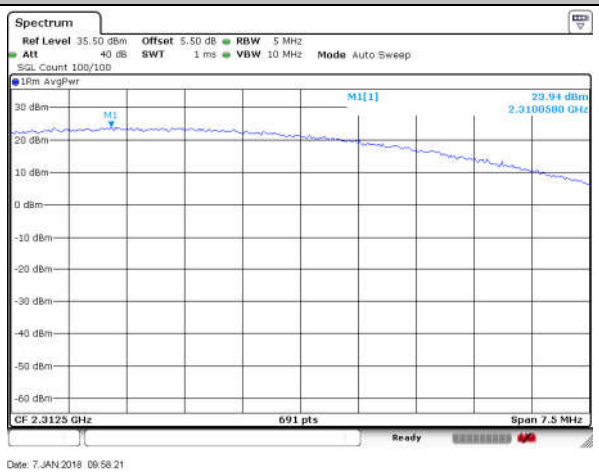


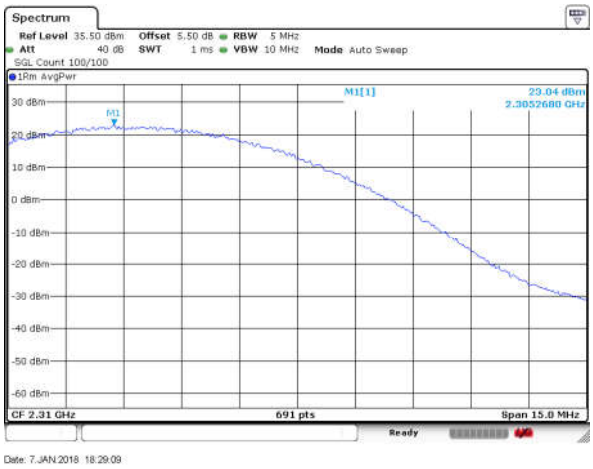
Middle Channel / 5MHz / 1RB0 / 64QAM



LTE Band 30 / 5MHz

Highest Channel / 5MHz / 1RB0 / 64QAM



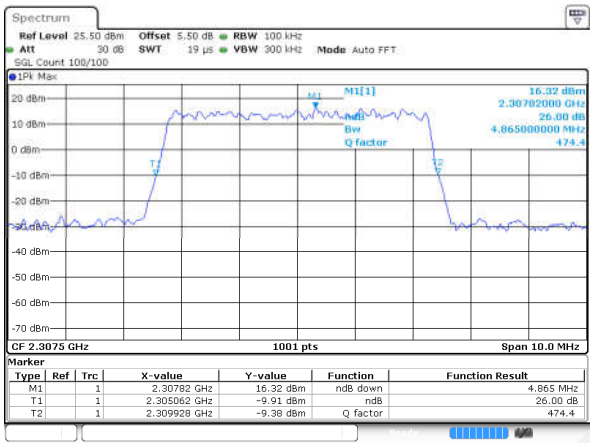
LTE Band 30 / 10MHz	
Middle Channel / 10MHz / 1RB0 / 64QAM	
	

26dB Bandwidth

Mode	LTE Band 30 : 26dB BW(MHz)											
BW	5MHz		10MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM		64QAM					
Lowest CH	4.865	4.955	-	-	4.845							-
Middle CH	4.945	4.835	9.79	9.71	4.915		9.83					-
Highest CH	4.915	4.905	-	-	4.855							-

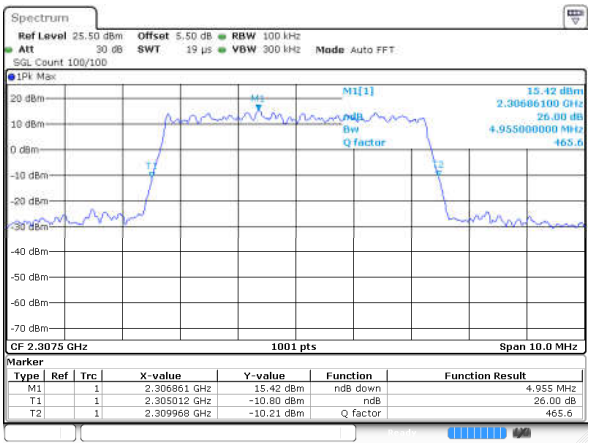
LTE Band 30

Lowest Channel / 5MHz / QPSK



Date: 7.JAN.2018 08:31:00

Lowest Channel / 5MHz / 16QAM



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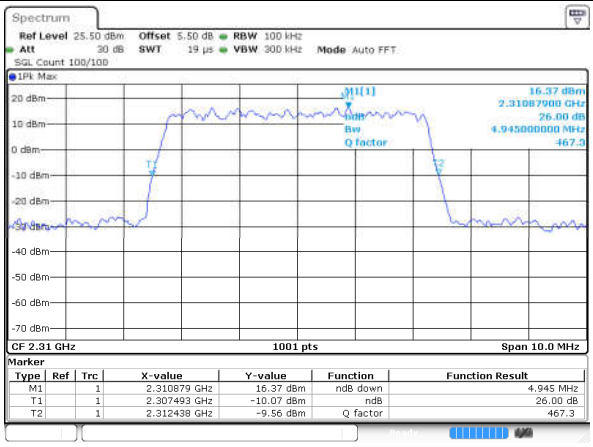
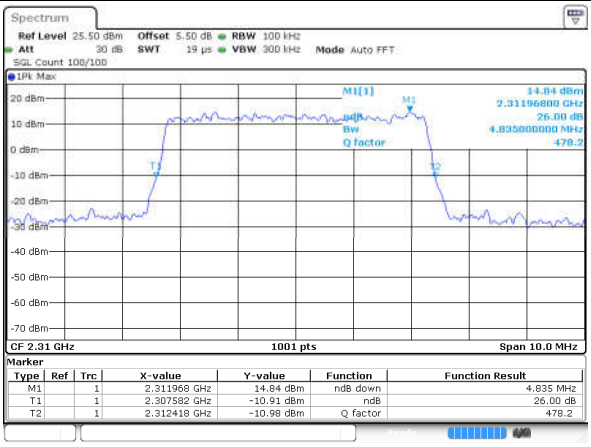
Middle Channel / 5MHz / QPSK



Date: 7.JAN.2018 08:32:28

Middle Channel / 5MHz / 16QAM



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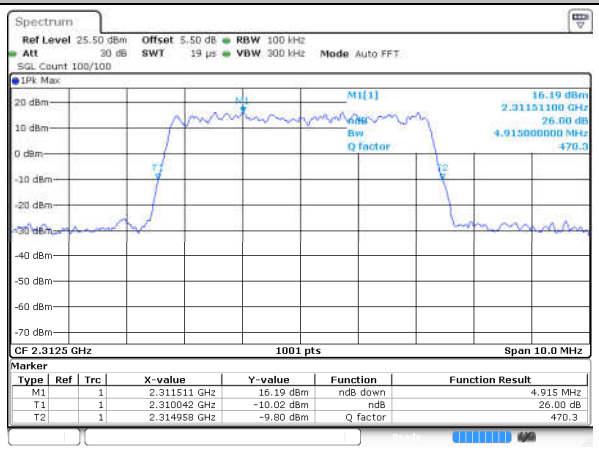
Highest Channel / 5MHz / QPSK



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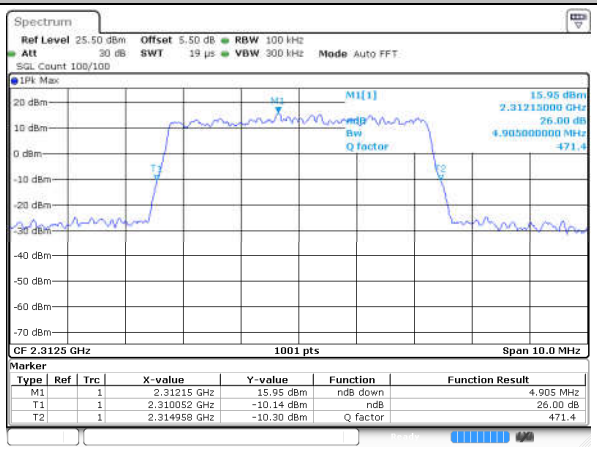
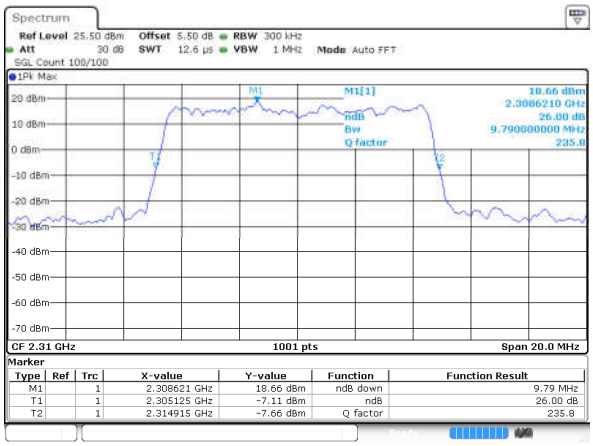
Highest Channel / 5MHz / 16QAM



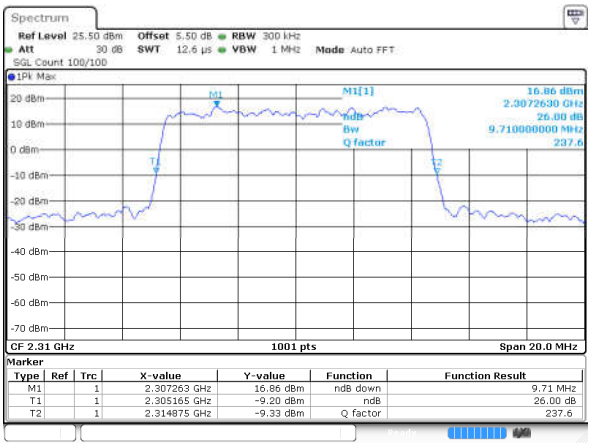
Date: 7.JAN.2018 08:34:18

LTE Band 30

Middle Channel / 10MHz / QPSK

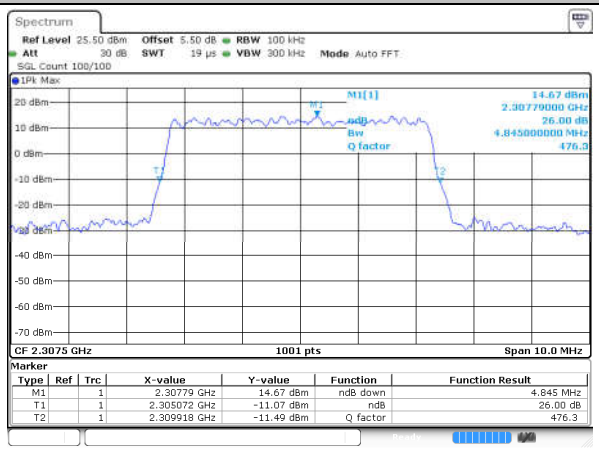


Middle Channel / 10MHz / 16QAM

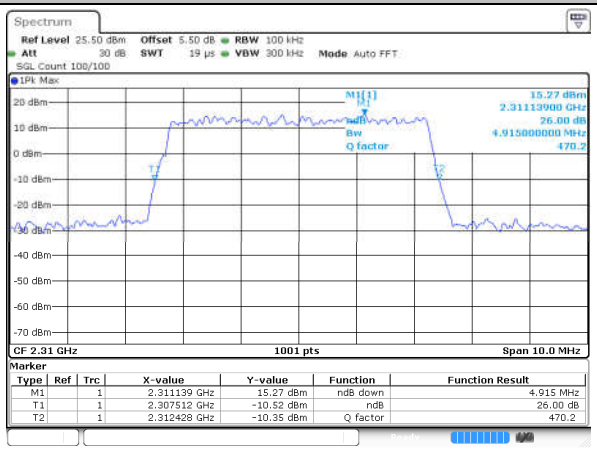


LTE Band 30

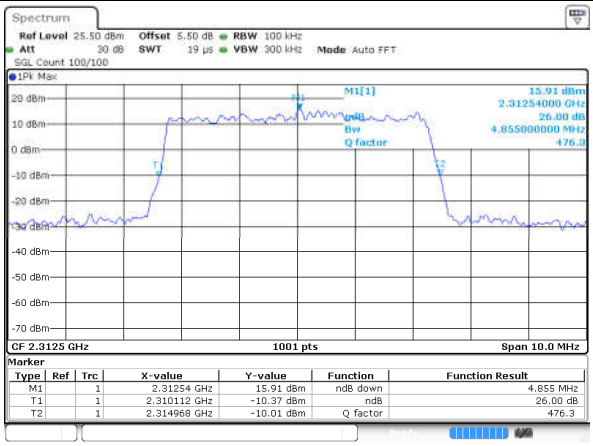
Lowest Channel / 5MHz / 64QAM



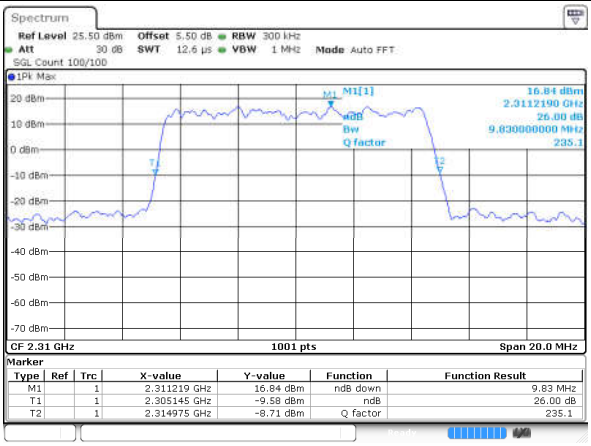
Middle Channel / 5MHz / 64QAM



Highest Channel /5MHz / 64QAM



Middle Channel /10MHz / 64QAM

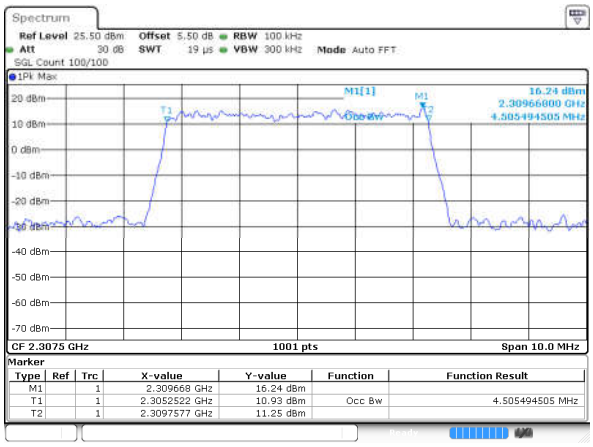


Occupied Bandwidth

Mode	LTE Band 30 : 99%OBW(MHz)											
BW	5MHz		10MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM		64QAM					
Lowest CH	4.51	4.48	-	-	4.51					-	-	-
Middle CH	4.48	4.51	9.03	8.99	4.48		8.99		-	-	-	-
Highest CH	4.47	4.48	-	-	4.48				-	-	-	-

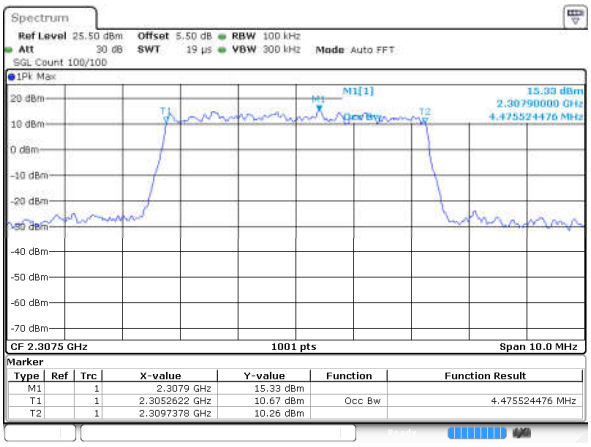
LTE Band 30

Lowest Channel / 5MHz / QPSK



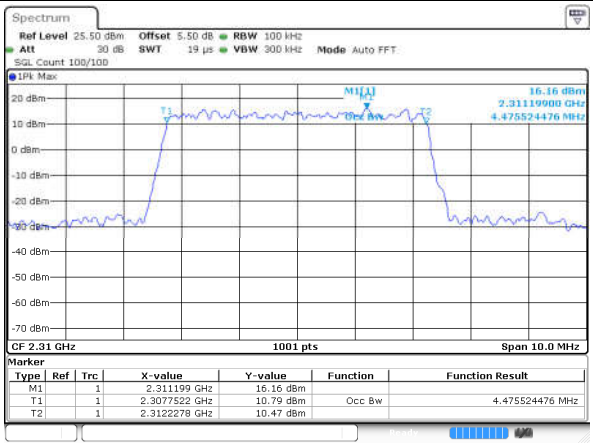
Date: 7.JAN.2018 08:30:45

Lowest Channel / 5MHz / 16QAM



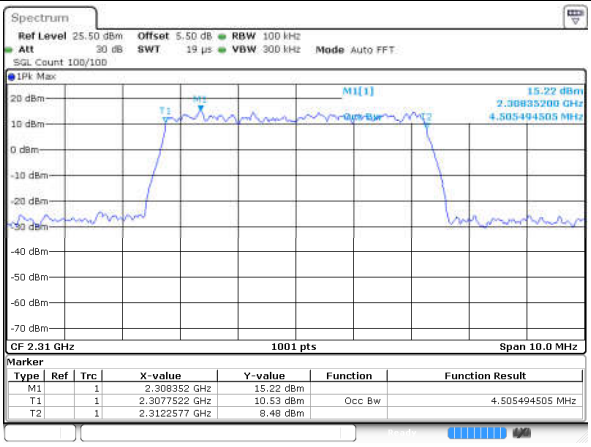
Date: 7.JAN.2018 08:31:23

Middle Channel / 5MHz / QPSK



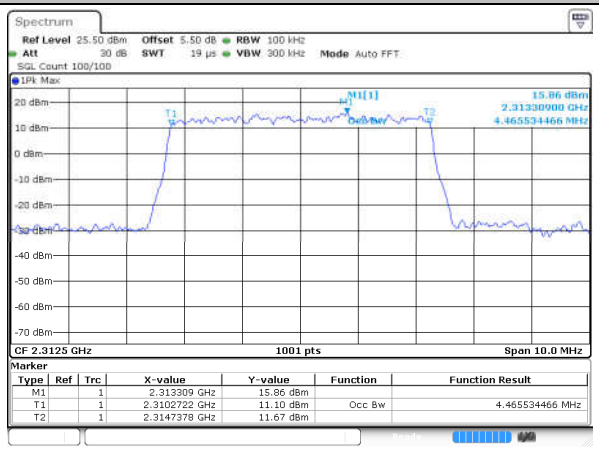
Date: 7.JAN.2018 08:32:18

Middle Channel / 5MHz / 16QAM



Date: 7.JAN.2018 08:31:53

Highest Channel / 5MHz / QPSK



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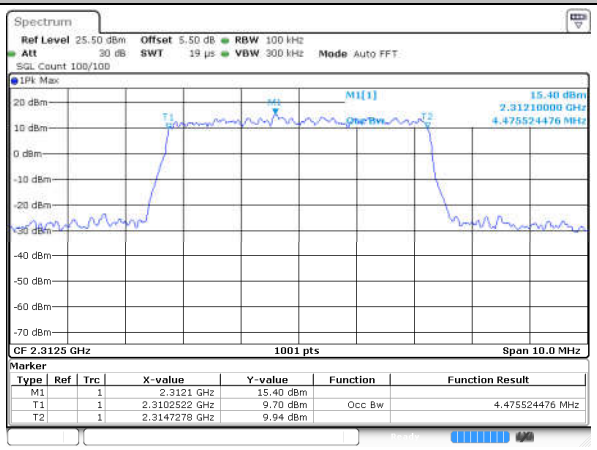
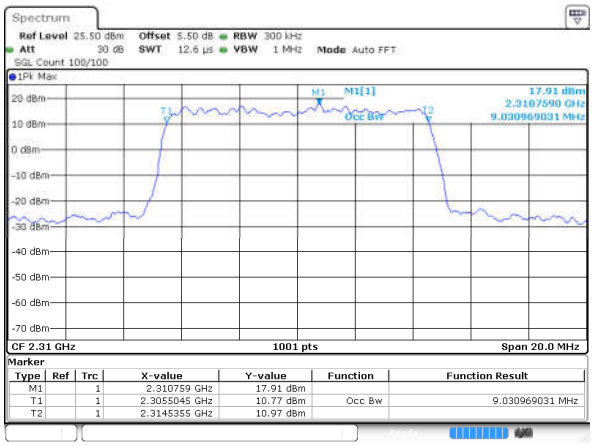
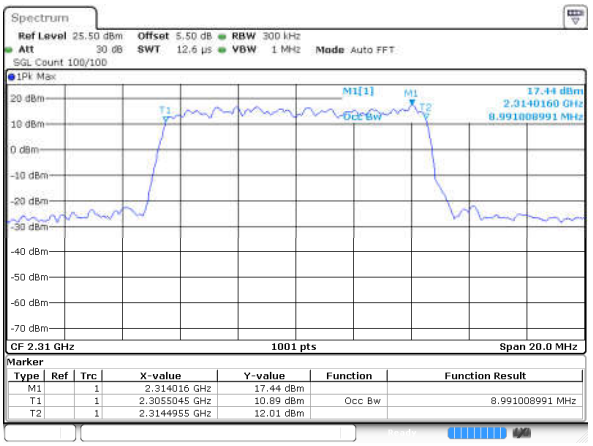
Highest Channel / 5MHz / 16QAM



Date: 7.JAN.2018 08:34:06

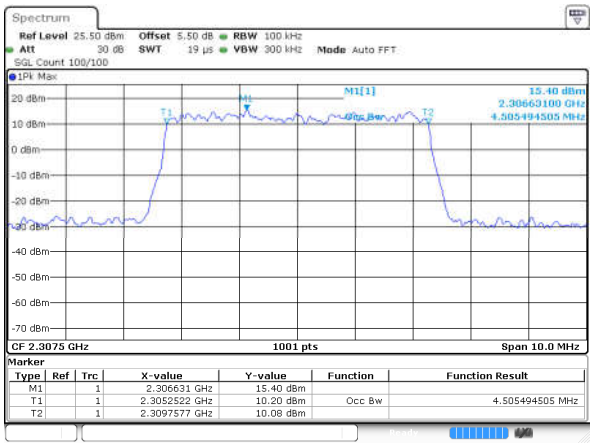
LTE Band 30	
Middle Channel / 10MHz / QPSK	Middle Channel / 10MHz / 16QAM





LTE Band 30

Lowest Channel / 5MHz / 64QAM



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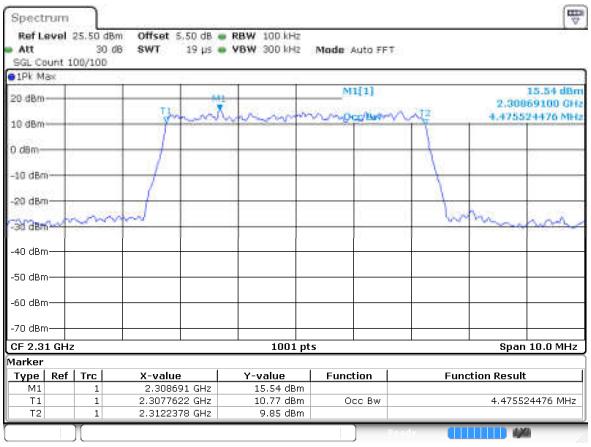
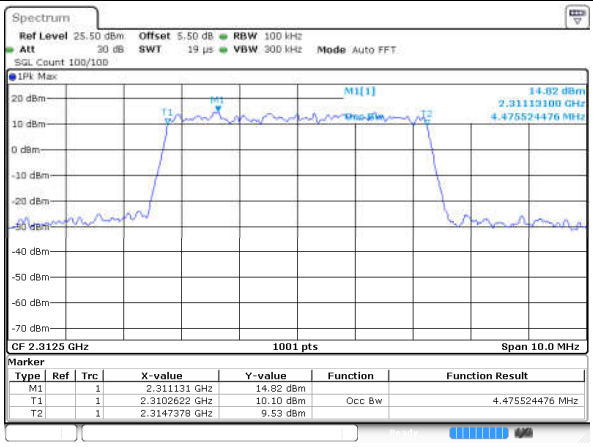
Middle Channel / 5MHz / 64QAM



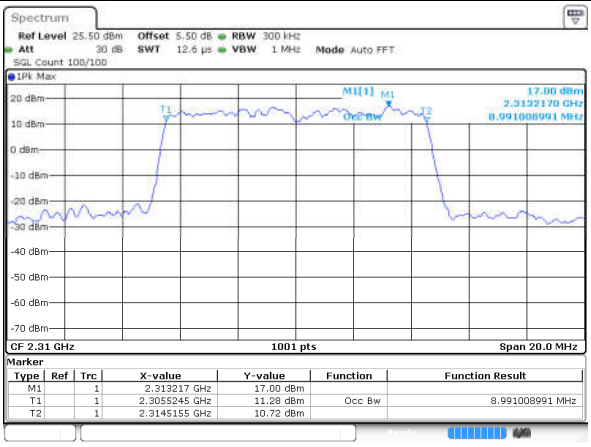
Date: 7.JAN.2018 09:28:13

Highest Channel /5MHz / 64QAM



Date: 7.JAN.2018 09:28:37

Middle Channel /10MHz / 64QAM

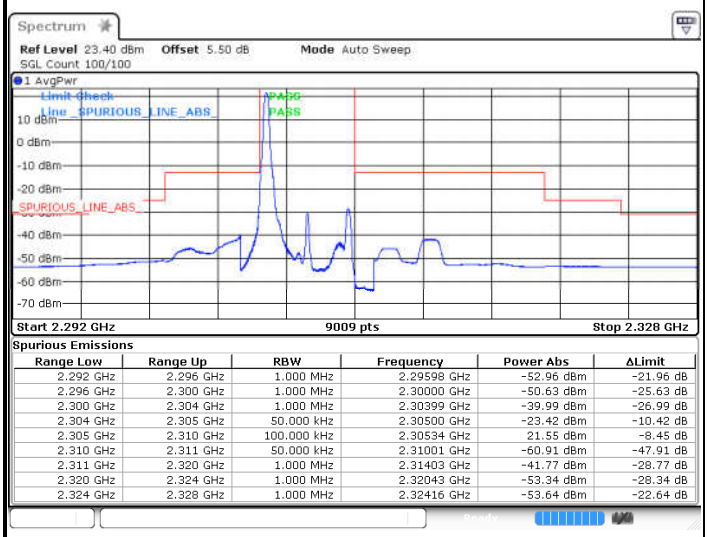


Date: 7.JAN.2018 09:38:31

Conducted Band Edge

LTE Band 30 / 5MHz / QPSK

Lowest Band Edge / 1 RB

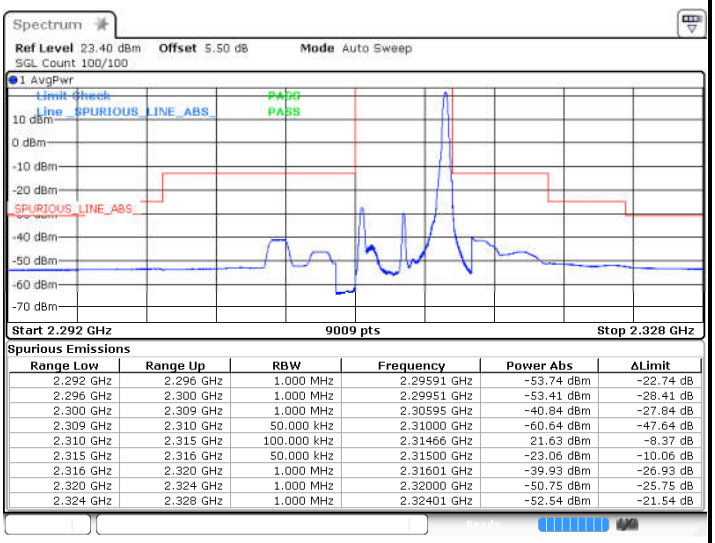


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29598 GHz	-52.96 dBm	-21.96 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.30000 GHz	-50.63 dBm	-25.63 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30399 GHz	-39.99 dBm	-26.99 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-23.42 dBm	-10.42 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30534 GHz	21.55 dBm	-8.45 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-60.91 dBm	-47.91 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31403 GHz	-41.77 dBm	-28.77 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32043 GHz	-53.34 dBm	-28.34 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32416 GHz	-53.64 dBm	-22.64 dB

Date: 7.JAN.2018 08:38:41

Highest Band Edge / 1 RB

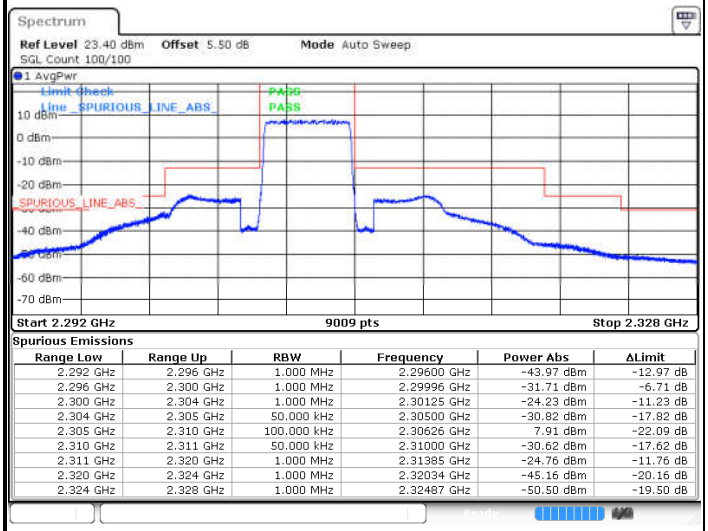


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29591 GHz	-53.74 dBm	-22.74 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29951 GHz	-53.41 dBm	-28.41 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30595 GHz	-40.84 dBm	-27.84 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-60.64 dBm	-47.64 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31466 GHz	21.63 dBm	-8.37 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-23.06 dBm	-10.06 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-39.93 dBm	-26.93 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32000 GHz	-50.75 dBm	-25.75 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-52.54 dBm	-21.54 dB

Date: 7.JAN.2018 08:53:27

Lowest Band Edge / Full RB

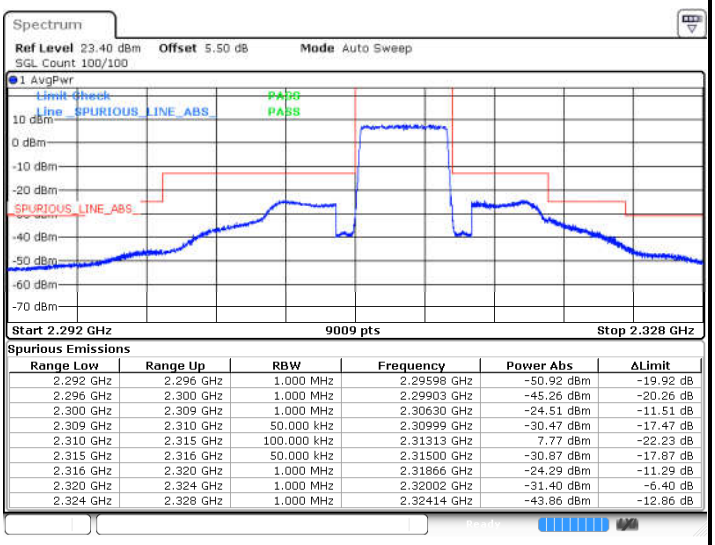


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29600 GHz	-43.97 dBm	-12.97 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29996 GHz	-31.71 dBm	-6.71 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30125 GHz	-24.23 dBm	-11.23 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-30.82 dBm	-17.82 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30626 GHz	7.91 dBm	-22.09 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-30.62 dBm	-17.62 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31385 GHz	-24.76 dBm	-11.76 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32034 GHz	-45.16 dBm	-20.16 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32487 GHz	-50.50 dBm	-19.50 dB

Date: 7.JAN.2018 08:43:41

Highest Band Edge / Full RB



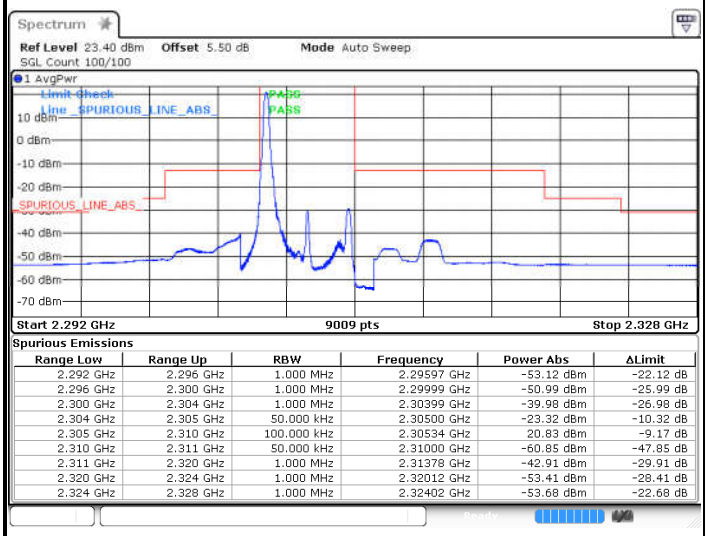
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29598 GHz	-50.92 dBm	-19.92 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29903 GHz	-45.26 dBm	-20.26 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30630 GHz	-24.51 dBm	-11.51 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30999 GHz	-30.47 dBm	-17.47 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31313 GHz	7.77 dBm	-22.23 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-30.87 dBm	-17.87 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31866 GHz	-24.29 dBm	-11.29 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32002 GHz	-31.40 dBm	-6.40 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32414 GHz	-43.86 dBm	-12.86 dB

Date: 7.JAN.2018 08:57:30

LTE Band 30 / 5MHz / 16QAM

Lowest Band Edge / 1RB

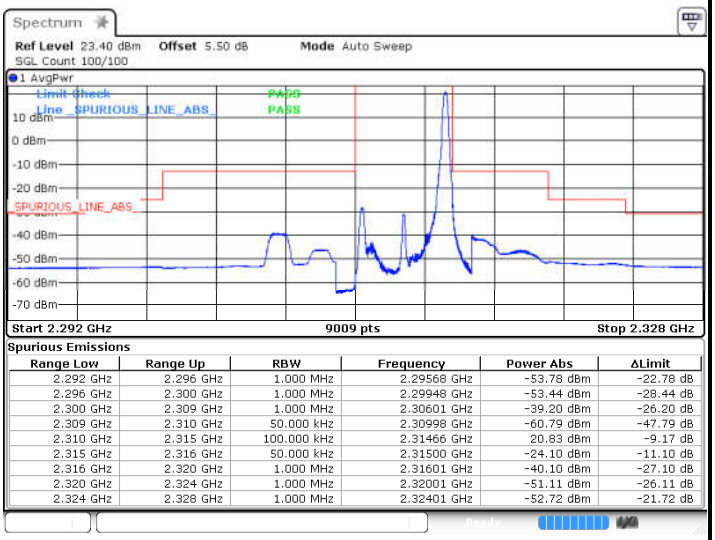


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29597 GHz	-53.12 dBm	-22.12 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29999 GHz	-50.99 dBm	-25.99 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30399 GHz	-39.98 dBm	-26.98 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-23.32 dBm	-10.32 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30534 GHz	20.83 dBm	-9.17 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-60.85 dBm	-47.85 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31378 GHz	-42.91 dBm	-29.91 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32012 GHz	-53.41 dBm	-28.41 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32402 GHz	-53.68 dBm	-22.68 dB

Date: 7.JAN.2018 08:42:17

Highest Band Edge / 1 RB

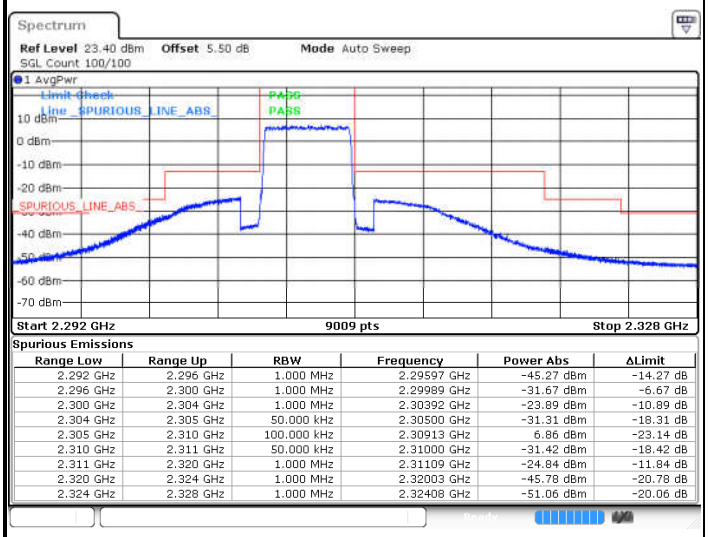


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29568 GHz	-53.78 dBm	-22.78 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29948 GHz	-53.44 dBm	-28.44 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30601 GHz	-39.20 dBm	-26.20 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30998 GHz	-60.79 dBm	-47.79 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31466 GHz	20.83 dBm	-9.17 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-24.10 dBm	-11.10 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-40.10 dBm	-27.10 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-51.11 dBm	-26.11 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-52.72 dBm	-21.72 dB

Date: 7.JAN.2018 08:55:18

Lowest Band Edge / Full RB

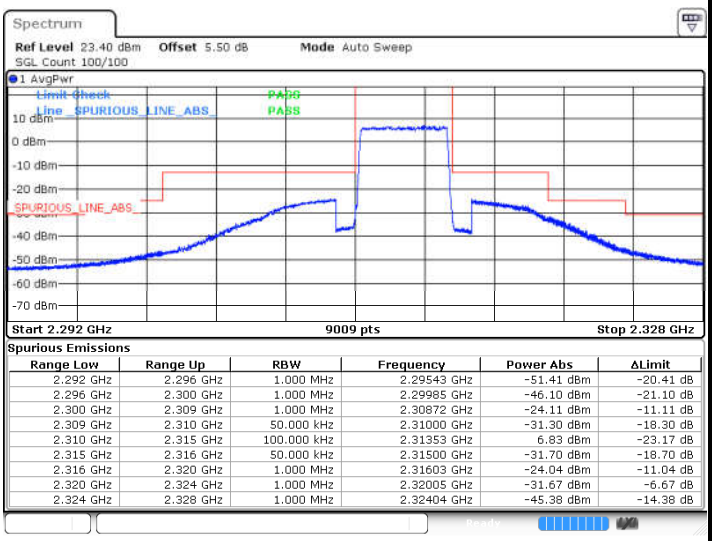


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29597 GHz	-45.27 dBm	-14.27 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29989 GHz	-31.67 dBm	-6.67 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30392 GHz	-23.89 dBm	-10.89 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-31.31 dBm	-18.31 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30913 GHz	6.86 dBm	-23.14 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-31.42 dBm	-18.42 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31109 GHz	-24.84 dBm	-11.84 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32003 GHz	-45.78 dBm	-20.78 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32408 GHz	-51.06 dBm	-20.06 dB

Date: 7.JAN.2018 08:42:53

Highest Band Edge / Full RB



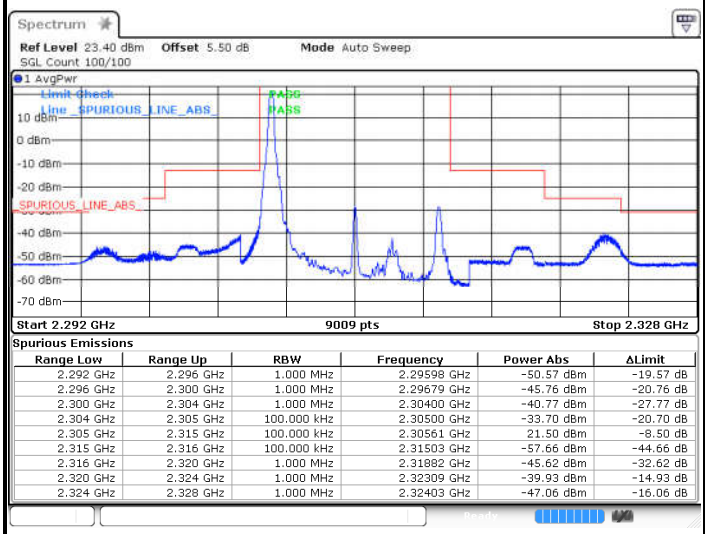
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29543 GHz	-51.41 dBm	-20.41 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29985 GHz	-46.10 dBm	-21.10 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30872 GHz	-24.11 dBm	-11.11 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-31.30 dBm	-18.30 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31353 GHz	6.83 dBm	-23.17 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-31.70 dBm	-18.70 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31603 GHz	-24.04 dBm	-11.04 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32005 GHz	-31.67 dBm	-6.67 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32404 GHz	-45.38 dBm	-14.38 dB

Date: 7.JAN.2018 08:56:19

LTE Band 30 / 10MHz / QPSK

Lowest Band Edge / 1 RB

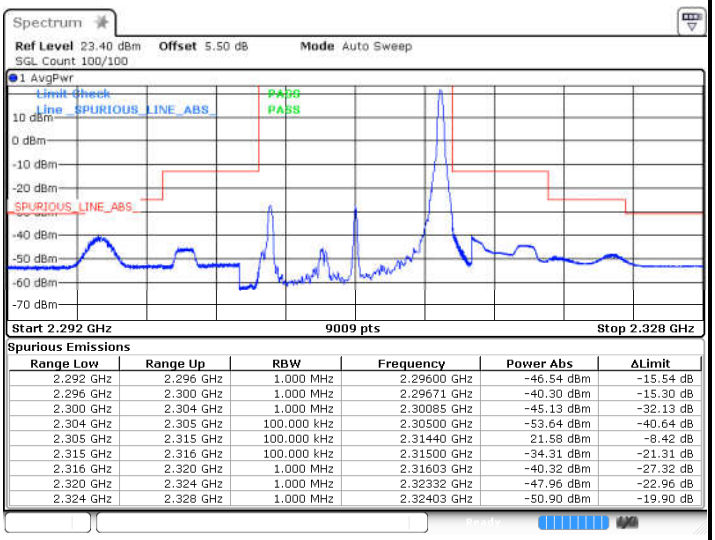


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29598 GHz	-50.57 dBm	-19.57 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29679 GHz	-45.76 dBm	-20.76 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30400 GHz	-40.77 dBm	-27.77 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-33.70 dBm	-20.70 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30561 GHz	21.50 dBm	-8.50 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31503 GHz	-57.66 dBm	-44.66 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31882 GHz	-45.62 dBm	-32.62 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32309 GHz	-39.93 dBm	-14.93 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32403 GHz	-47.06 dBm	-16.06 dB

Date: 7.JAN.2018 09:13:41

Highest Band Edge / 1 RB

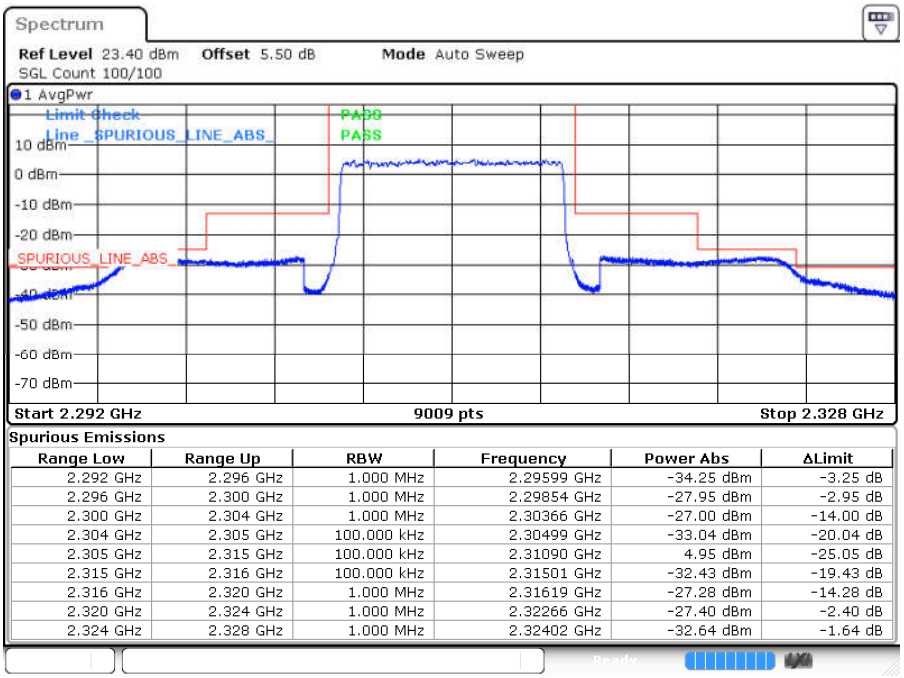


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29600 GHz	-46.54 dBm	-15.54 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29671 GHz	-40.30 dBm	-15.30 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30085 GHz	-45.13 dBm	-32.13 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-53.64 dBm	-40.64 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31440 GHz	21.58 dBm	-8.42 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-34.31 dBm	-21.31 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31603 GHz	-40.32 dBm	-27.32 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32332 GHz	-47.96 dBm	-22.96 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32403 GHz	-50.90 dBm	-19.90 dB

Date: 7.JAN.2018 09:24:35

Band Edge / Full RB



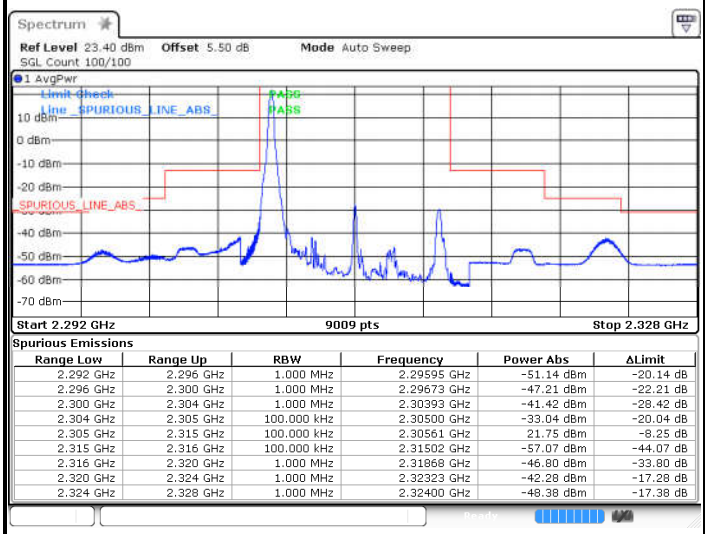
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-34.25 dBm	-3.25 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29854 GHz	-27.95 dBm	-2.95 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30366 GHz	-27.00 dBm	-14.00 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-33.04 dBm	-20.04 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31090 GHz	4.95 dBm	-25.05 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-32.43 dBm	-19.43 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31619 GHz	-27.28 dBm	-14.28 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32266 GHz	-27.40 dBm	-2.40 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32402 GHz	-32.64 dBm	-1.64 dB

Date: 7.JAN.2018 09:25:03

LTE Band 30 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

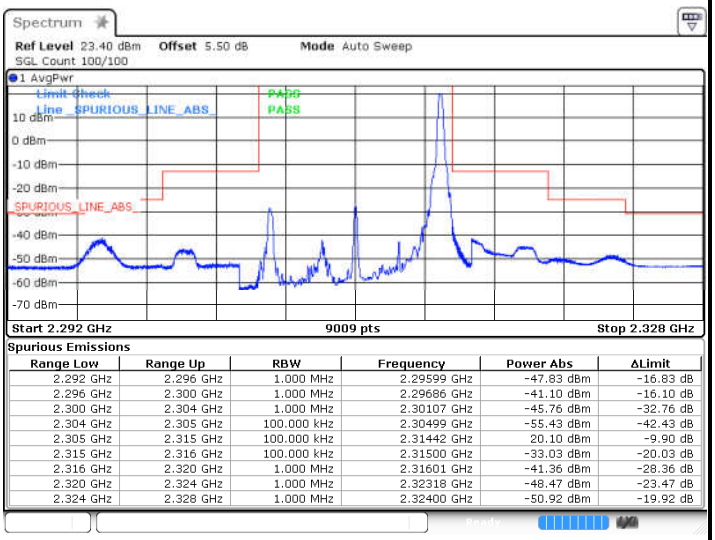


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29595 GHz	-51.14 dBm	-20.14 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29673 GHz	-47.21 dBm	-22.21 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30393 GHz	-41.42 dBm	-28.42 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-33.04 dBm	-20.04 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30561 GHz	21.75 dBm	-8.25 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31502 GHz	-57.07 dBm	-44.07 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31868 GHz	-46.80 dBm	-33.80 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32323 GHz	-42.28 dBm	-17.28 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32400 GHz	-48.38 dBm	-17.38 dB

Date: 7.JAN.2018 09:22:07

Highest Band Edge / 1 RB

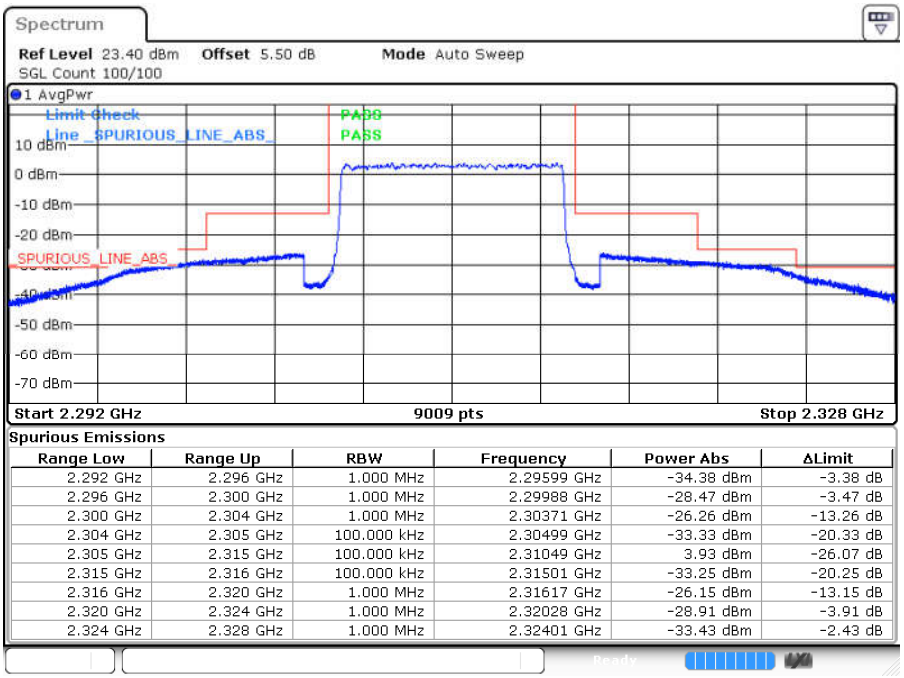


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-47.83 dBm	-16.83 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29686 GHz	-41.10 dBm	-16.10 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30107 GHz	-45.76 dBm	-32.76 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-55.43 dBm	-42.43 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31442 GHz	20.10 dBm	-9.90 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-33.03 dBm	-20.03 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-41.36 dBm	-28.36 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32318 GHz	-48.47 dBm	-23.47 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32400 GHz	-50.92 dBm	-19.92 dB

Date: 7.JAN.2018 09:23:55

Band Edge / Full RB



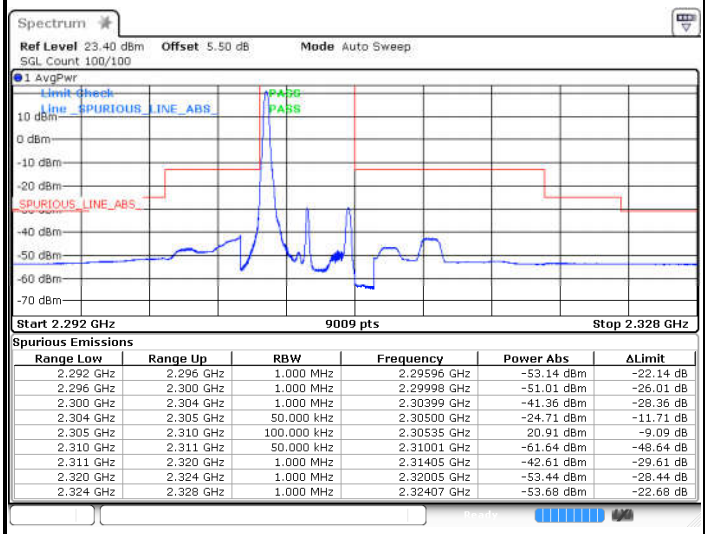
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-34.38 dBm	-3.38 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29988 GHz	-28.47 dBm	-3.47 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30371 GHz	-26.26 dBm	-13.26 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-33.33 dBm	-20.33 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31049 GHz	3.93 dBm	-26.07 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-33.25 dBm	-20.25 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31617 GHz	-26.15 dBm	-13.15 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32028 GHz	-28.91 dBm	-3.91 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-33.43 dBm	-2.43 dB

Date: 7.JAN.2018 09:25:33

LTE Band 30 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

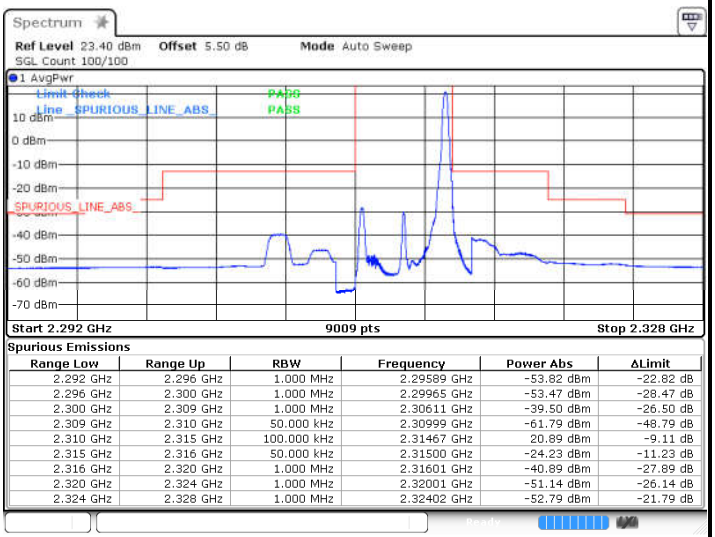


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29596 GHz	-53.14 dBm	-22.14 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29998 GHz	-51.01 dBm	-26.01 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30399 GHz	-41.36 dBm	-28.36 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-24.71 dBm	-11.71 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30535 GHz	20.91 dBm	-9.09 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-61.64 dBm	-48.64 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31405 GHz	-42.61 dBm	-29.61 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32005 GHz	-53.44 dBm	-28.44 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32407 GHz	-53.68 dBm	-22.68 dB

Date: 7.JAN.2018 09:34:13

Highest Band Edge / 1 RB

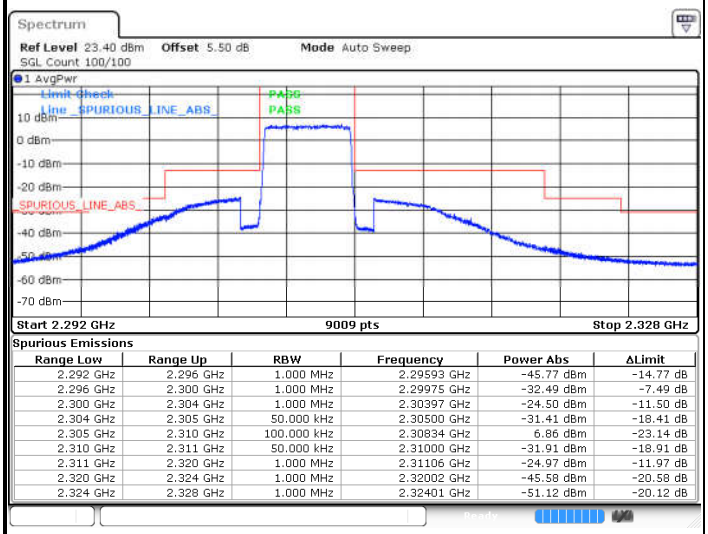


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29589 GHz	-53.82 dBm	-22.82 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29965 GHz	-53.47 dBm	-28.47 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30611 GHz	-39.50 dBm	-26.50 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30999 GHz	-61.79 dBm	-48.79 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31467 GHz	20.89 dBm	-9.11 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-24.23 dBm	-11.23 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-40.89 dBm	-27.89 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-51.14 dBm	-26.14 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32402 GHz	-52.79 dBm	-21.79 dB

Date: 7.JAN.2018 09:38:07

Lowest Band Edge / Full RB

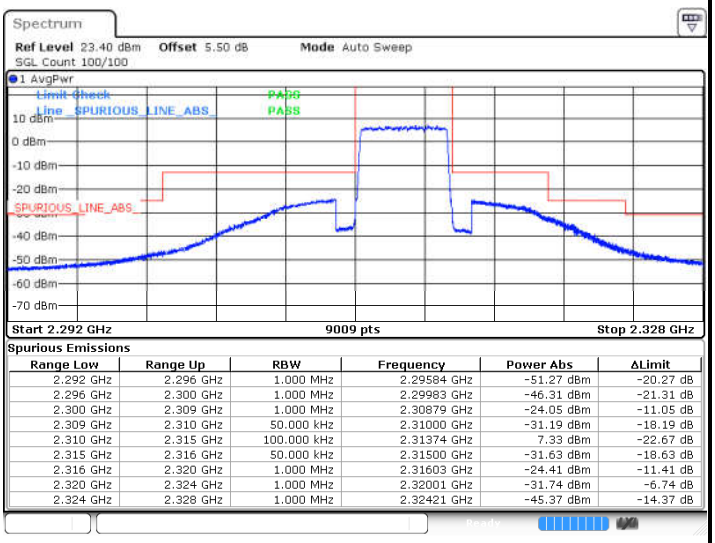


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29593 GHz	-45.77 dBm	-14.77 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29975 GHz	-32.49 dBm	-7.49 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30397 GHz	-24.50 dBm	-11.50 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-31.41 dBm	-18.41 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30834 GHz	6.86 dBm	-23.14 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-31.91 dBm	-18.91 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31106 GHz	-24.97 dBm	-11.97 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32002 GHz	-45.58 dBm	-20.58 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-51.12 dBm	-20.12 dB

Date: 7.JAN.2018 09:34:55

Highest Band Edge / Full RB



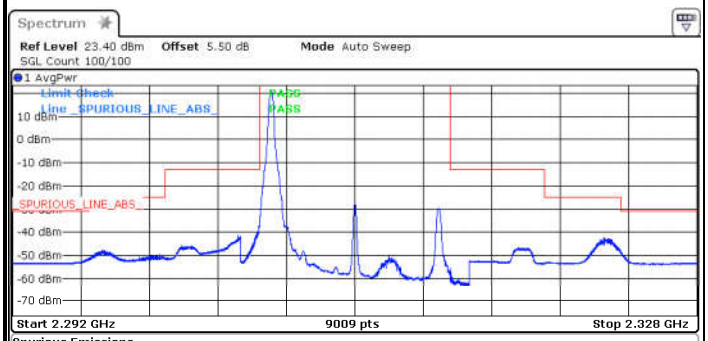
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29584 GHz	-51.27 dBm	-20.27 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29983 GHz	-46.31 dBm	-21.31 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30879 GHz	-24.05 dBm	-11.05 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-31.19 dBm	-18.19 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31374 GHz	7.33 dBm	-22.67 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-31.63 dBm	-18.63 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31603 GHz	-24.41 dBm	-11.41 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-31.74 dBm	-6.74 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32421 GHz	-45.37 dBm	-14.37 dB

Date: 7.JAN.2018 09:35:30

LTE Band 30 / 10MHz / 64QAM

Band Edge / 1 RB0

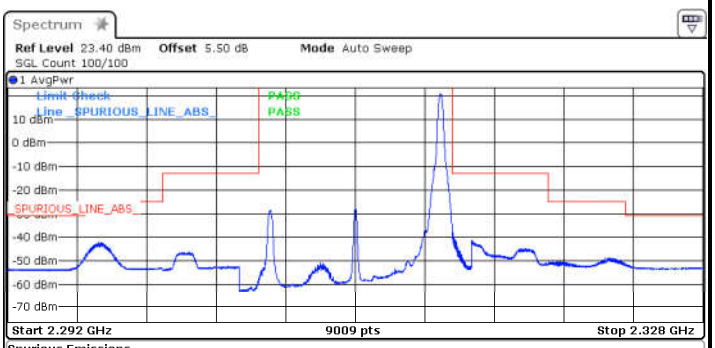


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29596 GHz	-51.39 dBm	-20.39 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29684 GHz	-47.75 dBm	-22.75 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30387 GHz	-41.56 dBm	-28.56 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-34.93 dBm	-21.93 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30559 GHz	20.75 dBm	-9.25 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-55.63 dBm	-42.63 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31862 GHz	-46.80 dBm	-33.80 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32307 GHz	-42.39 dBm	-17.39 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-48.88 dBm	-17.88 dB

Date: 7.JAN.2018 09:47:20

Band Edge / 1 RB MAX

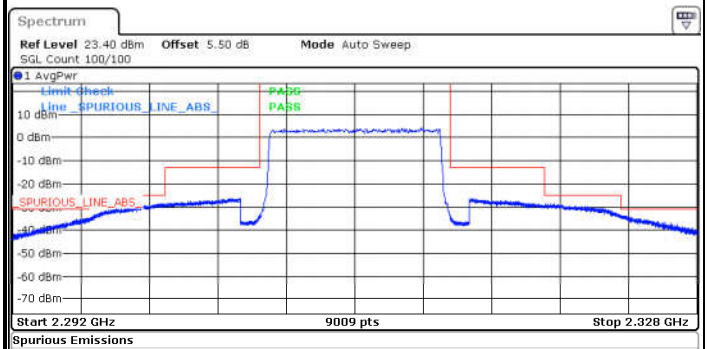


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29598 GHz	-48.41 dBm	-17.41 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29682 GHz	-42.06 dBm	-17.06 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30139 GHz	-46.45 dBm	-33.45 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-57.40 dBm	-44.40 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31441 GHz	20.76 dBm	-9.24 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-35.19 dBm	-22.19 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31605 GHz	-41.31 dBm	-28.31 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32333 GHz	-48.76 dBm	-23.76 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32403 GHz	-51.68 dBm	-20.68 dB

Date: 7.JAN.2018 09:49:46

Band Edge / Full RB



Spurious Emissions

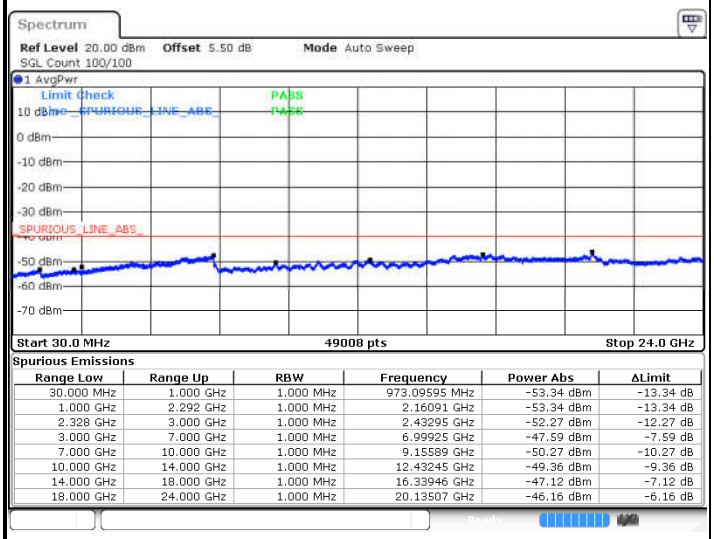
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29590 GHz	-34.74 dBm	-3.74 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29999 GHz	-28.57 dBm	-3.57 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30400 GHz	-26.36 dBm	-13.36 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-33.28 dBm	-20.28 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31349 GHz	4.19 dBm	-25.81 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-33.63 dBm	-20.63 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31609 GHz	-26.49 dBm	-13.49 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32012 GHz	-28.52 dBm	-3.52 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-33.64 dBm	-2.64 dB

Date: 7.JAN.2018 09:40:51

Conducted Spurious Emission

LTE Band 30 / 5MHz

Lowest Channel / QPSK

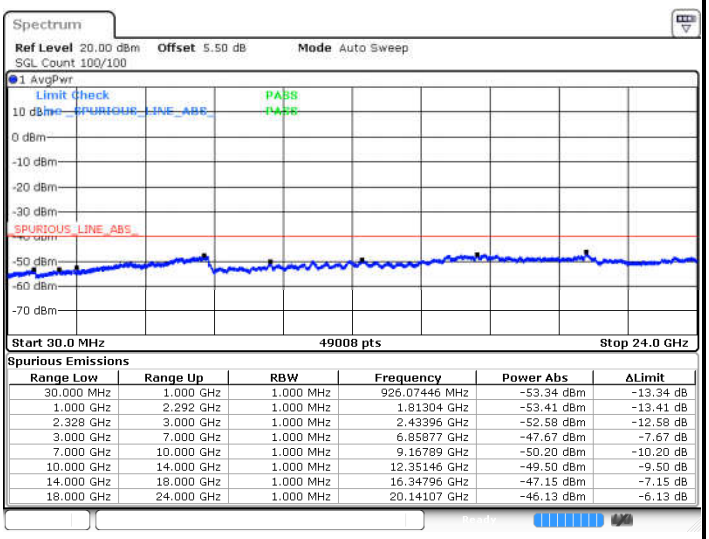


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	973.09595 MHz	-53.34 dBm	-13.34 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.16091 GHz	-53.34 dBm	-13.34 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43295 GHz	-52.27 dBm	-12.27 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99925 GHz	-47.59 dBm	-7.59 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.15589 GHz	-50.27 dBm	-10.27 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.43245 GHz	-49.36 dBm	-9.36 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.33946 GHz	-47.12 dBm	-7.12 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.13507 GHz	-46.16 dBm	-6.16 dB

Date: 7.JAN.2018 08:44:43

Lowest Channel / 16QAM

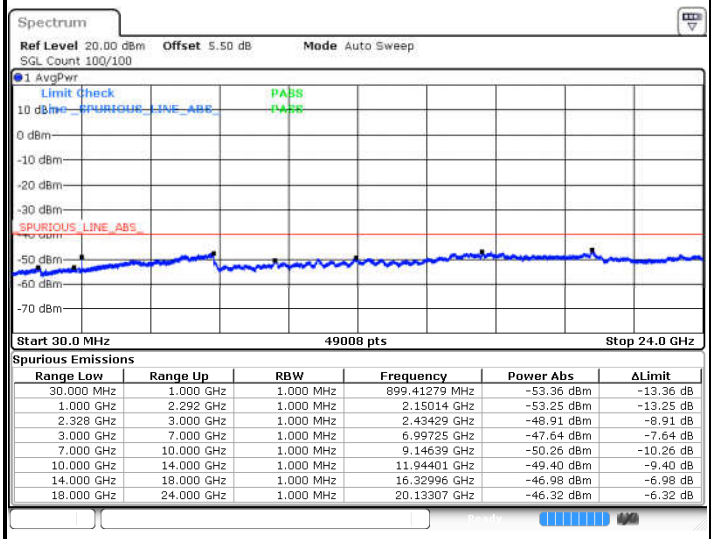


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	926.07446 MHz	-53.34 dBm	-13.34 dB
1.000 GHz	2.292 GHz	1.000 MHz	1.81304 GHz	-53.41 dBm	-13.41 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43396 GHz	-52.58 dBm	-12.58 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.85877 GHz	-47.67 dBm	-7.67 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.16789 GHz	-50.20 dBm	-10.20 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.35146 GHz	-49.50 dBm	-9.50 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.34796 GHz	-47.15 dBm	-7.15 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14107 GHz	-46.13 dBm	-6.13 dB

Date: 7.JAN.2018 08:45:47

Middle Channel / QPSK

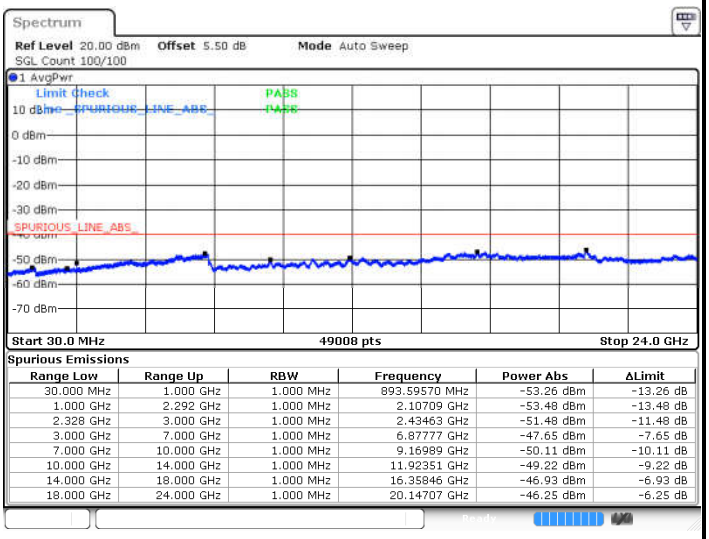


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	899.41279 MHz	-53.36 dBm	-13.36 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.15014 GHz	-53.25 dBm	-13.25 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43429 GHz	-48.91 dBm	-8.91 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99725 GHz	-47.64 dBm	-7.64 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.14639 GHz	-50.26 dBm	-10.26 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.94401 GHz	-49.40 dBm	-9.40 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.32996 GHz	-46.98 dBm	-6.98 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.13307 GHz	-46.32 dBm	-6.32 dB

Date: 7.JAN.2018 08:47:41

Middle Channel / 16QAM



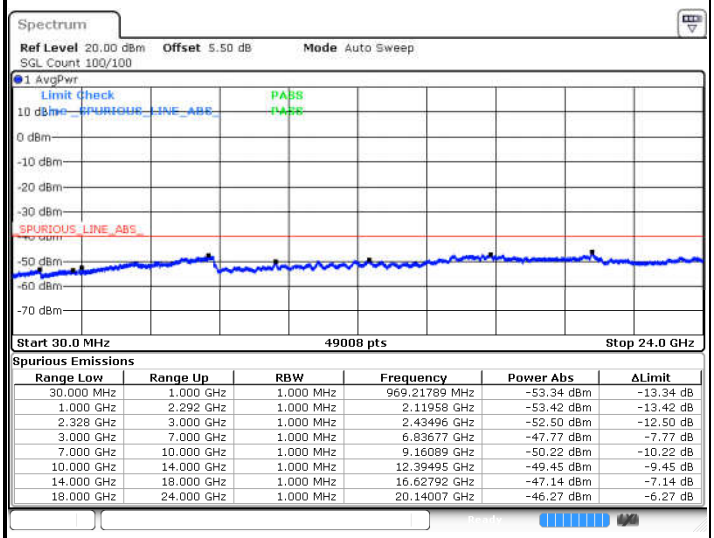
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	893.59570 MHz	-53.26 dBm	-13.26 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.10709 GHz	-53.48 dBm	-13.48 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43463 GHz	-51.48 dBm	-11.48 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87777 GHz	-47.65 dBm	-7.65 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.16989 GHz	-50.11 dBm	-10.11 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.92351 GHz	-49.22 dBm	-9.22 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.35846 GHz	-46.93 dBm	-6.93 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14707 GHz	-46.25 dBm	-6.25 dB

Date: 7.JAN.2018 08:46:45

LTE Band 30 / 5MHz

Highest Channel / QPSK

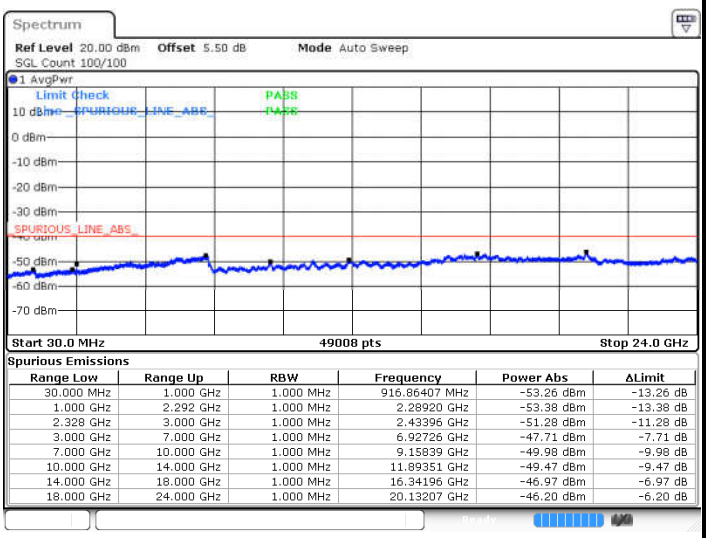


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	969.21789 MHz	-53.34 dBm	-13.34 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.11958 GHz	-53.42 dBm	-13.42 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43496 GHz	-52.50 dBm	-12.50 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.83677 GHz	-47.77 dBm	-7.77 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.16089 GHz	-50.22 dBm	-10.22 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.39495 GHz	-49.45 dBm	-9.45 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.62792 GHz	-47.14 dBm	-7.14 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14007 GHz	-46.27 dBm	-6.27 dB

Date: 7.JAN.2018 08:49:03

Highest Channel / 16QAM



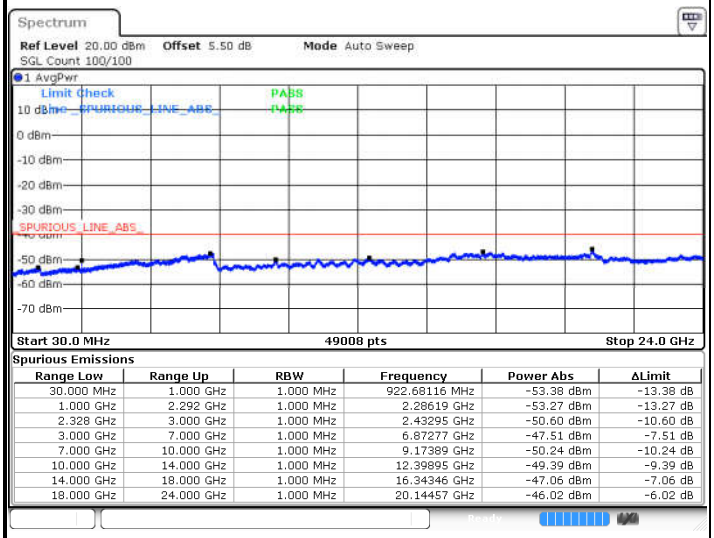
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	916.86407 MHz	-53.26 dBm	-13.26 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.28920 GHz	-53.38 dBm	-13.38 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43396 GHz	-51.28 dBm	-11.28 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92726 GHz	-47.71 dBm	-7.71 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.15839 GHz	-49.98 dBm	-9.98 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.89351 GHz	-49.47 dBm	-9.47 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.34196 GHz	-46.97 dBm	-6.97 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.13207 GHz	-46.20 dBm	-6.20 dB

Date: 7.JAN.2018 08:50:02

LTE Band 30 / 10MHz

Middle Channel / QPSK

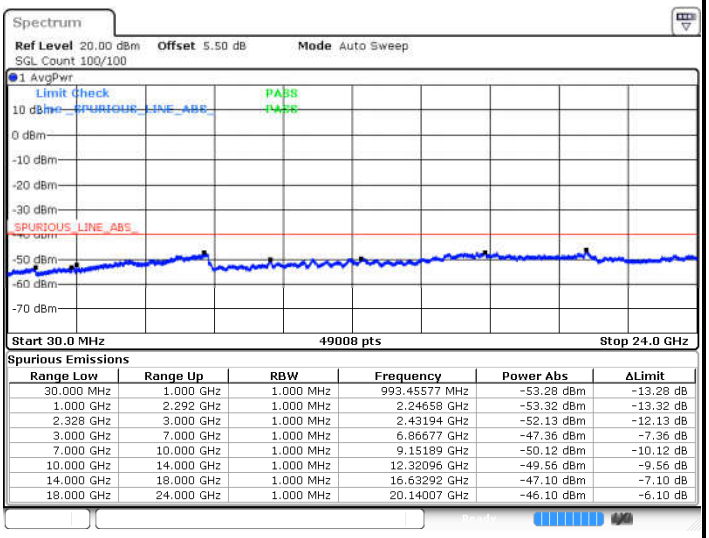


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	922.68116 MHz	-53.38 dBm	-13.38 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.28619 GHz	-53.27 dBm	-13.27 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43295 GHz	-50.60 dBm	-10.60 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.87277 GHz	-47.51 dBm	-7.51 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.17389 GHz	-50.24 dBm	-10.24 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.39895 GHz	-49.39 dBm	-9.39 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.34346 GHz	-47.06 dBm	-7.06 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14457 GHz	-46.02 dBm	-6.02 dB

Date: 7.JAN.2018 09:06:30

Middle Channel / 16QAM



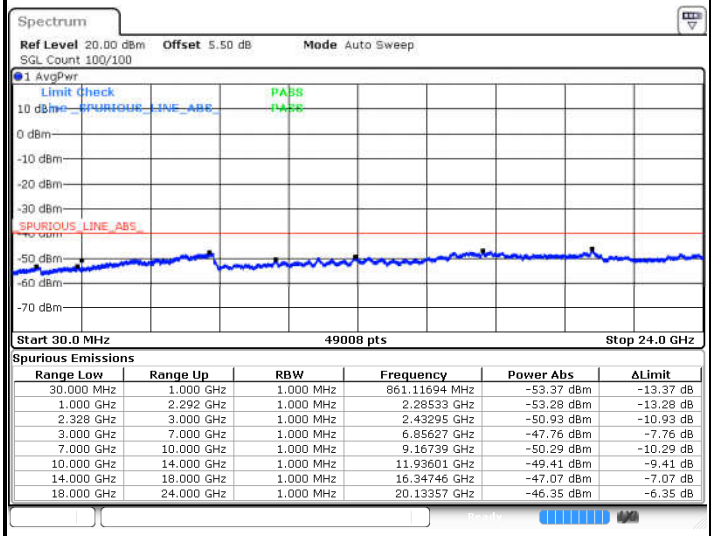
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	993.45577 MHz	-53.28 dBm	-13.28 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.24658 GHz	-53.32 dBm	-13.32 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43194 GHz	-52.13 dBm	-12.13 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86677 GHz	-47.36 dBm	-7.36 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.15189 GHz	-50.12 dBm	-10.12 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.32096 GHz	-49.56 dBm	-9.56 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.63292 GHz	-47.10 dBm	-7.10 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14007 GHz	-46.10 dBm	-6.10 dB

Date: 7.JAN.2018 09:04:42

LTE Band 30 / 5MHz

Lowest Channel / 64QAM

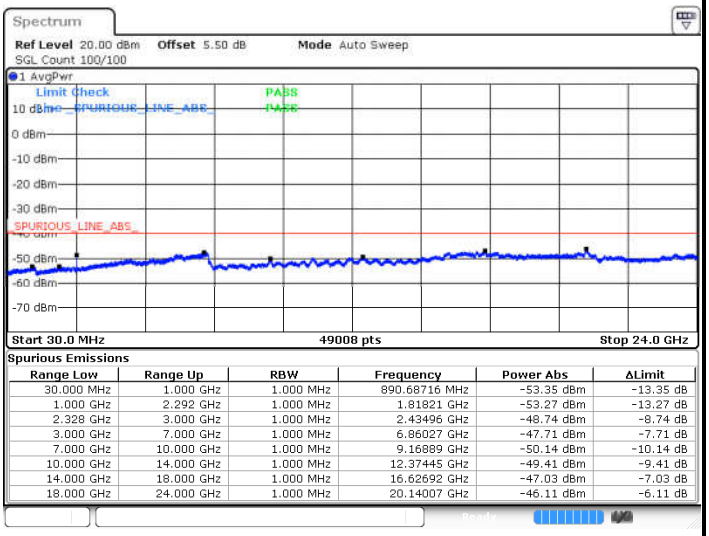


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	861.11694 MHz	-53.37 dBm	-13.37 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.28533 GHz	-53.28 dBm	-13.28 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43295 GHz	-50.93 dBm	-10.93 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.85627 GHz	-47.76 dBm	-7.76 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.16739 GHz	-50.29 dBm	-10.29 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.93601 GHz	-49.41 dBm	-9.41 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.34746 GHz	-47.07 dBm	-7.07 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.13357 GHz	-46.35 dBm	-6.35 dB

Date: 7.JAN.2018 09:30:01

Middle Channel / 64QAM

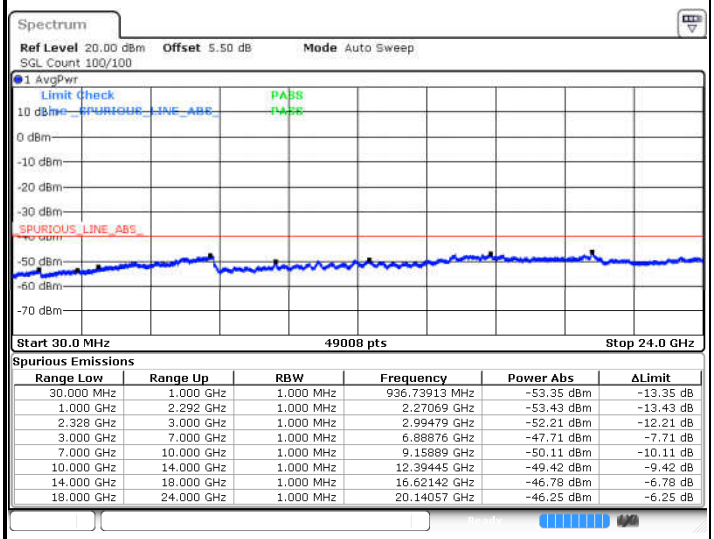


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	890.68716 MHz	-53.35 dBm	-13.35 dB
1.000 GHz	2.292 GHz	1.000 MHz	1.81821 GHz	-53.27 dBm	-13.27 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43496 GHz	-48.74 dBm	-8.74 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.86027 GHz	-47.71 dBm	-7.71 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.16889 GHz	-50.14 dBm	-10.14 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.37445 GHz	-49.41 dBm	-9.41 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.62692 GHz	-47.03 dBm	-7.03 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14007 GHz	-46.11 dBm	-6.11 dB

Date: 7.JAN.2018 09:30:53

Highest Channel / 64QAM



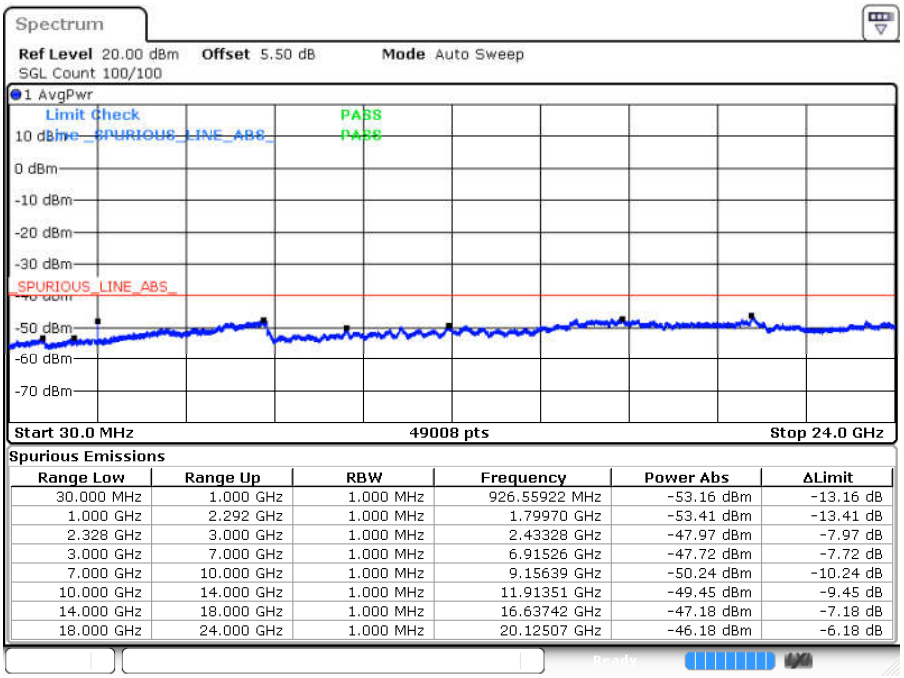
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	936.73913 MHz	-53.35 dBm	-13.35 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.27069 GHz	-53.43 dBm	-13.43 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.99479 GHz	-52.21 dBm	-12.21 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.88876 GHz	-47.71 dBm	-7.71 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.15889 GHz	-50.11 dBm	-10.11 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.39445 GHz	-49.42 dBm	-9.42 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.62142 GHz	-46.78 dBm	-6.78 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.14057 GHz	-46.25 dBm	-6.25 dB

Date: 7.JAN.2018 09:31:44

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	926.55922 MHz	-53.16 dBm	-13.16 dB
1.000 GHz	2.292 GHz	1.000 MHz	1.79970 GHz	-53.41 dBm	-13.41 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.43328 GHz	-47.97 dBm	-7.97 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91526 GHz	-47.72 dBm	-7.72 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.15639 GHz	-50.24 dBm	-10.24 dB
10.000 GHz	14.000 GHz	1.000 MHz	11.91351 GHz	-49.45 dBm	-9.45 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.63742 GHz	-47.18 dBm	-7.18 dB
18.000 GHz	24.000 GHz	1.000 MHz	20.12507 GHz	-46.18 dBm	-6.18 dB

Date: 7.JAN.2018 09:39:30

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	0.0007	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0016	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0015	

Note:

1. Normal Voltage =11.58 V.；Battery End Point (BEP) =9 V.；Maximum Voltage =13 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

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	-53.02	-40	-13.02	-76.41	-59.82	2.11	8.92	H
	6918	-49.28	-40	-9.28	-76.43	-57.36	2.62	10.70	H
	9216	-45.27	-40	-5.27	-75.83	-55.35	2.53	12.61	H
	4608	-52.85	-40	-12.85	-76.25	-59.65	2.11	8.92	V
	6918	-48.78	-40	-8.78	-76.03	-56.86	2.62	10.70	V
	9216	-44.55	-40	-4.55	-75.66	-54.63	2.53	12.61	V
Middle	4614	-52.90	-40	-12.90	-76.41	-59.71	2.11	8.93	H
	6924	-50.02	-40	-10.02	-77.25	-58.11	2.62	10.71	H
	9234	-45.50	-40	-5.50	-76.09	-55.57	2.53	12.61	H
	4614	-52.74	-40	-12.74	-76.12	-59.55	2.11	8.93	V
	6924	-49.55	-40	-9.55	-76.64	-57.64	2.62	10.71	V
	9234	-45.08	-40	-5.08	-76.08	-55.15	2.53	12.61	V
Highest	4620	-52.80	-40	-12.80	-76.22	-59.62	2.12	8.94	H
	6930	-49.66	-40	-9.66	-76.84	-57.76	2.61	10.72	H
	9234	-44.70	-40	-4.70	-75.26	-54.77	2.53	12.61	H
	4620	-52.80	-40	-12.80	-76.29	-59.62	2.12	8.94	V
	6930	-49.14	-40	-9.14	-76.42	-57.24	2.61	10.72	V
	9234	-44.95	-40	-4.95	-76.03	-55.02	2.53	12.61	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	-52.88	-40	-12.88	-76.37	-59.68	2.11	8.92	H
	6918	-49.49	-40	-9.49	-76.57	-57.57	2.62	10.70	H
	9216	-45.15	-40	-5.15	-75.76	-55.23	2.53	12.61	H
	4608	-52.71	-40	-12.71	-76.11	-59.51	2.11	8.92	V
	6918	-48.24	-40	-8.24	-75.37	-56.32	2.62	10.70	V
	9216	-45.98	-40	-5.98	-76.01	-56.06	2.53	12.61	V

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