FCC RF Test Report

APPLICANT	:	Motorola Mobility LLC
EQUIPMENT	:	Mobile Cellular Phone
BRAND NAME	:	Motorola
MODEL NAME	:	XT2215-2, XT2215-3, XT2215-4, XT2215DL
FCC ID	:	IHDT56AA4
STANDARD	:	47 CFR Part 2, 27(D)
CLASSIFICATION	:	PCS Licensed Transmitter Held to Ear (PCE)
TEST DATE(S)	:	Dec. 27, 2021 ~ Jan. 13, 2022

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 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 Inc. (Shenzhen), the test report shall not be reproduced except in full.

Reviewed by: Derreck Chen / Supervisor

Approved by: Eric Shih / Manager

ACCREDITED Cert #5145.01

Sporton International Inc. (ShenZhen)

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG1N0903F	Rev. 01	Initial issue of report	Jan. 30, 2022

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	—	Report Only	-
3.5	-	Peak-to-Average Ratio	—	Report Only	
3.6	§27.50 (a)(3)	EIRP	EIRP < 250mW/5MHz	PASS	-
3.7	§2.1049	Occupied Bandwidth	—	Report Only	-
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 11.66 dB at 11527.50 MHz

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

1 General Description

1.1 Applicant

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

1.2 Manufacturer

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

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2215-2, XT2215-3, XT2215-4, XT2215DL
FCC ID	IHDT56AA4
IMEI Code	Conducted : 351475460011370 Radiation : 351475460012023
HW Version	DVT2
SW Version	S1SD32.29
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. The four models XT2215-2, XT2215-3, XT2215-4 and XT2215DL are only for market differentiation, all the others are the same.

1.4 Product Specification of Equipment Under Test

Product Feature	
Tx Frequency	LTE Band 30 : 2305 MHz ~ 2315 MHz
Rx Frequency	LTE Band 30 : 2350 MHz ~ 2360 MHz
Bandwidth	5MHz / 10MHz
Antenna Gain	Ant 7: -6.7 dBi Ant 8: -5.5 dBi
Type of Modulation	QPSK / 16QAM / 64QAM / 256QAM

Remark: The maximum EIRP is calculated from max Output power and antenna gain, only the maximum EIRP of Ant.8 is shown in the report.

1.5 Modification of EUT

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

1.6 Specification of Accessory

Specification of Accessory				
AC Adapter 1	**Brand Name**	Motorola(Chenyang)	**Model Name**	MC-101
AC Adapter 2	**Brand Name**	Motorola(Salcomp)	**Model Name**	MC-101
AC Adapter 3	**Brand Name**	Motorola(AOHAI)	**Model Name**	MC-101
Battery	**Brand Name**	Motorola(ATL)	**Model Name**	MD50
USB Cable 1	**Brand Name**	Motorola(Saibao)	**Model Name**	SC18D22297
USB Cable 2	**Brand Name**	Motorola(Cabletech)	**Model Name**	SC18D22298
USB Cable 3	**Brand Name**	Motorola(Luxshare)	**Model Name**	SC18D22299

1.7 Maximum EIRP Power and Emission Designator

LTE Band 30		QPSK		16QAM/64QAM	
BW (MHz)	**Frequency Range (MHz)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**
5	2307.5 ~ 2312.5	0.0504	4M53G7D	0.0460	4M52W7D
10	2310.0	0.0545	9M01G7D	0.0457	9M05W7D

1.8 Testing Site

Sporton International Inc. (Shenzhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City Guangdong Province China 518103 TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH01-SZ	CN1256	421272

1.9 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH01-SZ	AUDIX	E3	6.2009-8-24

1.10 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 C63.26-2015
- FCC KDB 971168 Power Meas License Digital Systems D01 v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01
-

Remark:

All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

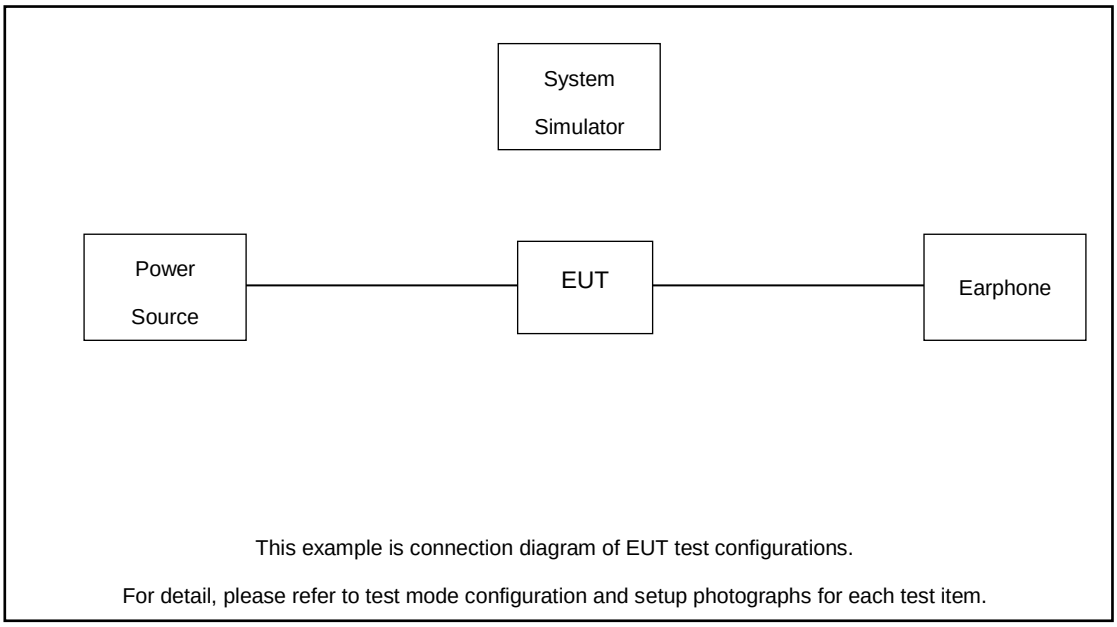
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 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	256QAM	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	V		V	
Peak-to-Average Ratio	30	-	-		V	-	-	V	V	V		V		V		V	
E.I.R.P	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. For QAM modulation, LTE 256QAM only verify output power, the 256QAM power < 16QAM/64QAM, full tests were assessed 16QAM/64QAM. 4. 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.	Earphone	Eimuse	E-500MV	Fcc DoC	Shielded, 2.2m	N/A
2.	Base Station	Anritsu	MT8820C	Fcc DoC	N/A	Shielded, 1.5m

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 and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5 dB and 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 5 + 10 = 15 (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

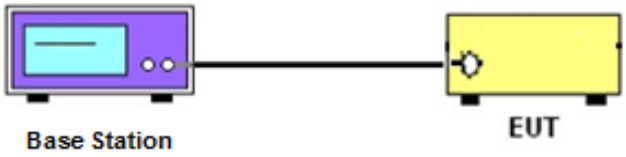
3 Conducted Test Items

3.1 Measuring Instruments

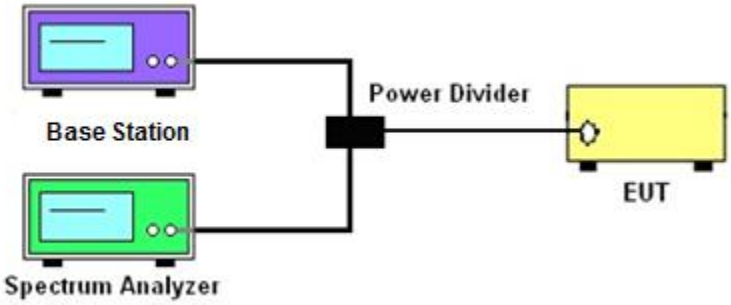
See list of measuring instruments of this test report.

3.2 Test Setup

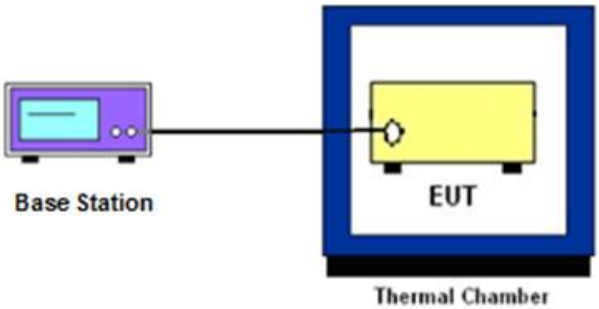
3.2.1 Conducted Output Power



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 testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

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 ANSI C63.26 Section 5.2.3.4 (CCDF).
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

3.6.1 Description of EIRP

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. According to KDB 412172 D01 Power Approach,
2. EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

   P_T = transmitter output power in dBm

   G_T = gain of the transmitting antenna in dBi

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

3.7 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 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.7.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
   (this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “–X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.8 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 testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used or a narrower RBW was used and the measured power was integrated over the full required measurement bandwidth of 1 MHz.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

   Example:

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

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

   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

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 9 kHz up to a frequency including its 10th harmonic.

3.9.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from 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 testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. 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.
4. 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 testing follows ANSI C63.26 section 5.6.5.
2. The EUT was placed in a temperature chamber at 20±5°C and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

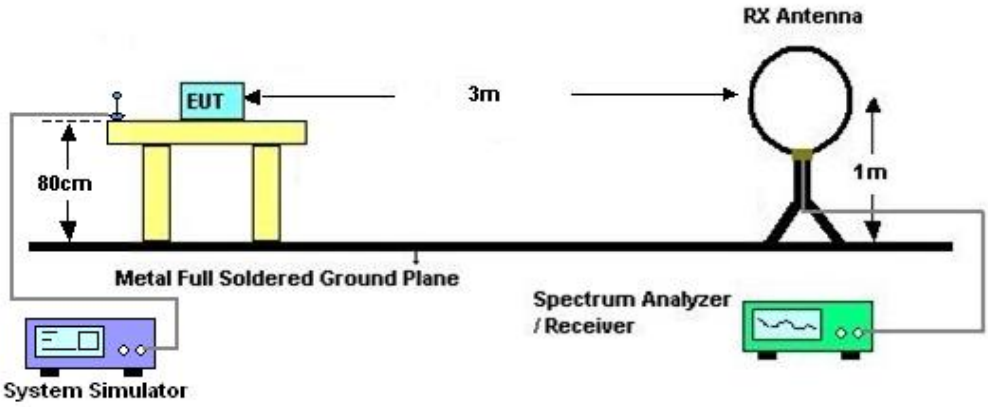
4 Radiated Test Items

4.1 Measuring Instruments

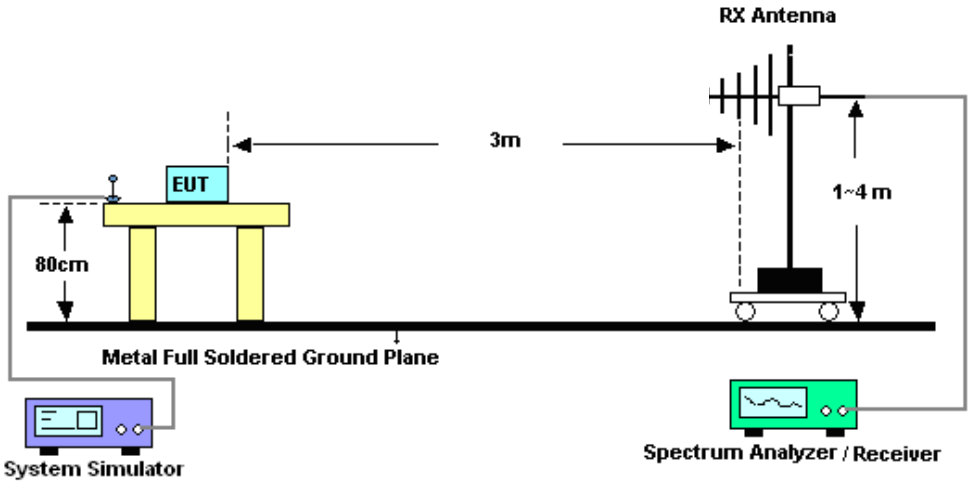
See list of measuring instruments of this test report.

4.2 Test Setup

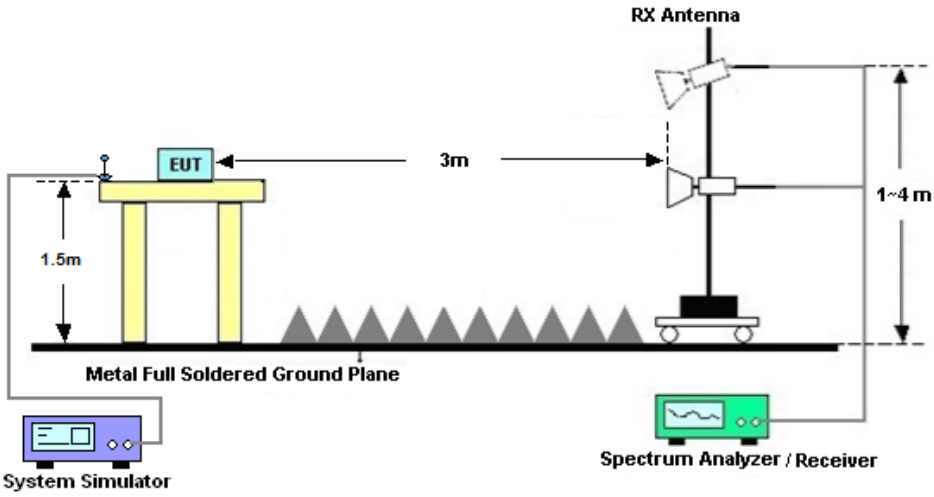
4.2.1 For radiated test below 30MHz



4.2.2 For radiated test from 30MHz to 1GHz



4.2.3 For radiated test above 1GHz



4.3 Test Result of Radiated Test

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

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.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
   EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
   ERP (dBm) = EIRP - 2.15
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.

5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 08, 2021	Dec. 27, 2021	Apr. 07, 2022	Conducted (TH01-SZ)
Power Divider	TOJOIN	PS-2SM-04 265	60.06.020.007 7	0.4GHz~26.5GHz	Dec. 25, 2021	Dec. 27, 2021	Dec. 24, 2022	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Jul. 14, 2021	Dec. 27, 2021	Jul. 13, 2022	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 21, 2021	Jan. 13, 2022	Jul. 20, 2022	Radiation (03CH01-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	Jun. 22, 2020	Jan. 13, 2022	Jun. 21, 2022	Radiation (03CH01-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jul. 15, 2021	Jan. 13, 2022	Jul. 14, 2022	Radiation (03CH01-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 25, 2021	Jan. 13, 2022	Jul. 24, 2022	Radiation (03CH01-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 11, 2021	Jan. 13, 2022	Apr. 10, 2022	Radiation (03CH01-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 16, 2021	Jan. 13, 2022	Oct. 15, 2022	Radiation (03CH01-SZ
LF Amplifier	Burgeon	BPA-530	102209	0.01~3000Mhz	Apr. 07, 2021	Jan. 13, 2022	Apr. 06, 2022	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	AMF-7D-00 101800-30-1 0P-R	1943528	1GHz~18GHz	Oct. 15, 2021	Jan. 13, 2022	Oct. 14, 2022	Radiation (03CH01-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 21. 2021	Jan. 13, 2022	Jul. 20. 2022	Radiation (03CH01-SZ)
AC Power Source	Chroma	61601	616010001985	N/A	NCR	Jan. 13, 2022	NCR	Radiation (03CH01-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jan. 13, 2022	NCR	Radiation (03CH01-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jan. 13, 2022	NCR	Radiation (03CH01-SZ)

NCR:No Calibration Required

6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.48dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.53dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.02dB**

Appendix A. Test Results of Conducted Test

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				27710		
Frequency (MHz)				2310		
10	QPSK	1	0	-	22.86	-
10	QPSK	1	25	-	22.49	-
10	QPSK	1	49	-	22.37	-
10	QPSK	25	0	-	21.84	-
10	QPSK	25	12	-	21.74	-
10	QPSK	25	25	-	21.78	-
10	QPSK	50	0	-	21.73	-
10	16QAM	1	0	-	22.07	-
10	16QAM	1	25	-	22.10	-
10	16QAM	1	49	-	22.05	-
10	16QAM	25	0	-	20.72	-
10	16QAM	25	12	-	20.82	-
10	16QAM	25	25	-	20.83	-
10	16QAM	50	0	-	20.77	-
10	64QAM	1	0	-	20.90	-
10	64QAM	1	25	-	21.09	-
10	64QAM	1	49	-	20.98	-
10	64QAM	25	0	-	19.82	-
10	64QAM	25	12	-	19.82	-
10	64QAM	25	25	-	19.86	-
10	64QAM	50	0	-	19.79	-
10	256QAM	1	0	-	18.03	-
10	256QAM	1	25	-	18.13	-
10	256QAM	1	49	-	18.02	-
10	256QAM	25	0	-	17.94	-
10	256QAM	25	12	-	18.04	-
10	256QAM	25	25	-	18.03	-
10	256QAM	50	0	-	17.92	-
Channel				27685	27710	27735
Frequency (MHz)				2307.5	2310	2312.5
5	QPSK	1	0	22.37	22.47	22.44
5	QPSK	1	12	22.41	22.52	22.47
5	QPSK	1	24	22.46	22.48	22.43
5	QPSK	12	0	21.68	21.73	21.75
5	QPSK	12	7	21.79	21.74	21.79
5	QPSK	12	13	21.77	21.82	21.81
5	QPSK	25	0	21.75	21.72	21.73

5	16QAM	1	0	21.98	22.07	22.09
5	16QAM	1	12	21.99	22.07	22.09
5	16QAM	1	24	22.11	22.13	22.03
5	16QAM	12	0	20.70	20.78	20.77
5	16QAM	12	7	20.81	20.76	20.83
5	16QAM	12	13	20.80	20.85	20.84
5	16QAM	25	0	20.78	20.76	20.79
5	64QAM	1	0	20.83	20.91	20.91
5	64QAM	1	12	20.91	20.94	20.94
5	64QAM	1	24	20.91	21.00	20.49
5	64QAM	12	0	19.77	19.77	19.81
5	64QAM	12	7	19.89	19.88	19.88
5	64QAM	12	13	19.83	19.85	19.86
5	64QAM	25	0	19.77	19.79	19.76
5	256QAM	1	0	17.91	18.02	18.03
5	256QAM	1	12	18.15	18.18	18.15
5	256QAM	1	24	18.16	18.07	18.07
5	256QAM	12	0	17.83	17.92	17.96
5	256QAM	12	7	18.05	17.91	17.87
5	256QAM	12	13	17.98	18.03	17.97
5	256QAM	25	0	17.92	17.90	17.82

EIRP

LTE Band 30 (GT - LC =-5.50dB) QPSK (dBm/5MHz)			
Bandwidth	5M		
Channel	27685	27710	27735
	(Low)	(Mid)	(High)
Frequency (MHz)	2307.5	2310	2312.5
Conducted Power (dBm)	22.41	22.52	22.47
Conducted Power (Watts)	0.1742	0.1786	0.1766
EIRP(dBm)	16.91	17.02	16.97
EIRP(Watts)	0.0491	0.0504	0.0498
Limit	250mW / 5MHz = 24dBm / 5MHz		PASS

LTE Band 30 (GT - LC = -5.50dB) QPSK (dBm/5MHz)			
Bandwidth	10M		
Channel		27710	
		(Mid)	
Frequency (MHz)		2310	
Conducted Power (dBm)		22.86	
Conducted Power (Watts)		0.1932	
EIRP(dBm)		17.36	
EIRP(Watts)		0.0545	
Limit	250mW / 5MHz = 24dBm / 5MHz		PASS

LTE Band 30 (GT - LC =-5.50 dB) 16QAM (dBm/5MHz)			
Bandwidth	5M		
Channel	27685	27710	27735
	(Low)	(Mid)	(High)
Frequency (MHz)	2307.5	2310	2312.5
Conducted Power (dBm)	22.11	22.13	22.03
Conducted Power (Watts)	0.1626	0.1633	0.1596
EIRP(dBm)	16.61	16.63	16.53
EIRP(Watts)	0.0458	0.0460	0.0450
Limit	250mW / 5MHz = 24dBm / 5MHz		PASS

LTE Band 30 (GT - LC = -5.50dB) 16QAM (dBm/5MHz)			
Bandwidth	10M		
Channel		27710	
		(Mid)	
Frequency (MHz)		2310	
Conducted Power (dBm)		22.10	
Conducted Power (Watts)		0.1622	
EIRP(dBm)		16.60	
EIRP(Watts)		0.0457	
Limit	250mW / 5MHz = 24dBm / 5MHz		PASS

LTE Band 30 (GT - LC =-5.50dB) 64QAM (dBm/5MHz)			
Bandwidth	5M		
Channel	27685	27710	27735
	(Low)	(Mid)	(High)
Frequency (MHz)	2307.5	2310	2312.5
Conducted Power (dBm)	20.91	21.00	20.49
Conducted Power (Watts)	0.1233	0.1259	0.1119
EIRP(dBm)	15.41	15.50	14.99
EIRP(Watts)	0.0348	0.0355	0.0316
Limit	250mW / 5MHz = 24dBm / 5MHz		PASS

LTE Band 30 (GT - LC = -5.50dB) 64QAM (dBm/5MHz)			
Bandwidth	10M		
Channel		27710	
		(Mid)	
Frequency (MHz)		2310	
Conducted Power (dBm)		21.09	
Conducted Power (Watts)		0.1285	
EIRP(dBm)		15.59	
EIRP(Watts)		0.0362	
Limit	250mW / 5MHz = 24dBm / 5MHz		PASS

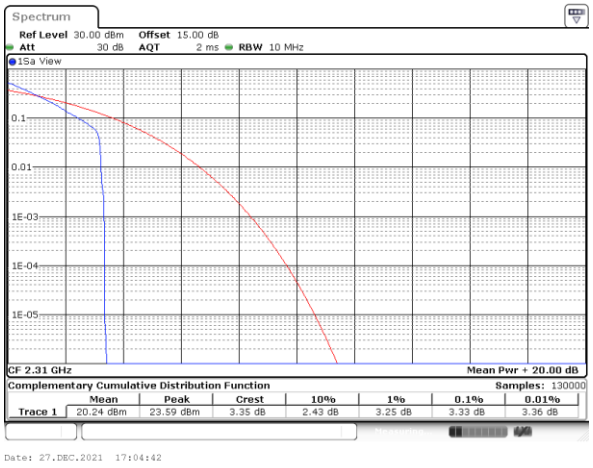
LTE Band 30

Peak-to-Average Ratio

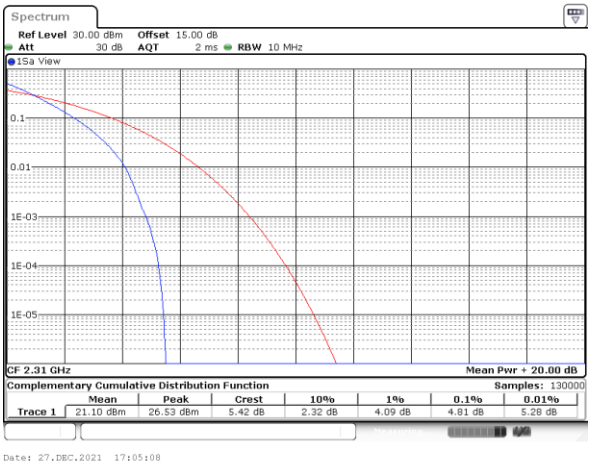
Mode	LTE Band 30 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.33	4.81	4.61	5.65	
Highest CH	-	-	-	-	
Mode	LTE Band 30 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.09	6.17	-	-	
Highest CH	-	-	-	-	

LTE Band 30 / 10MHz / QPSK

Middle Channel / 1RB

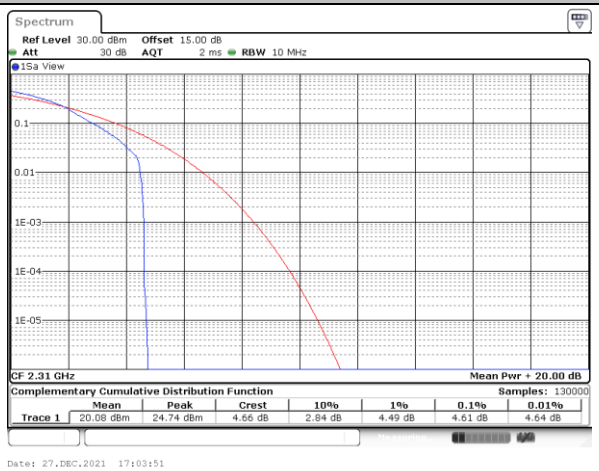


Middle Channel / Full RB

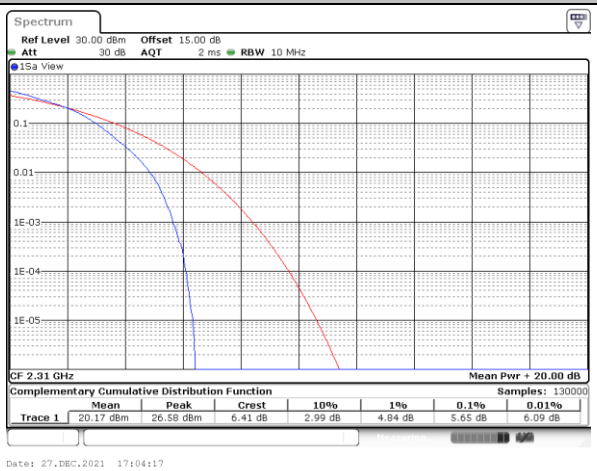


LTE Band 30 / 10MHz / 16QAM

Middle Channel / 1RB

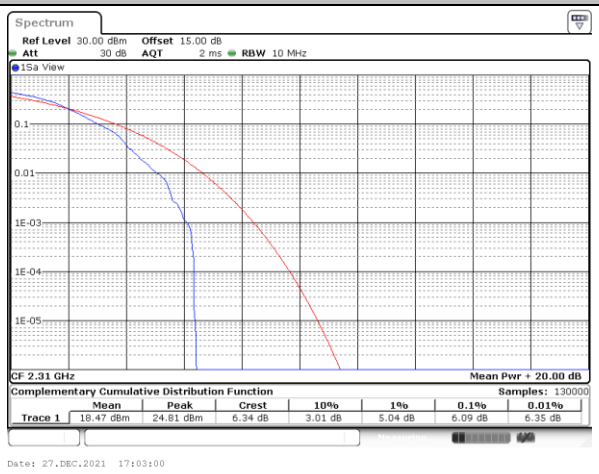


Middle Channel / Full RB

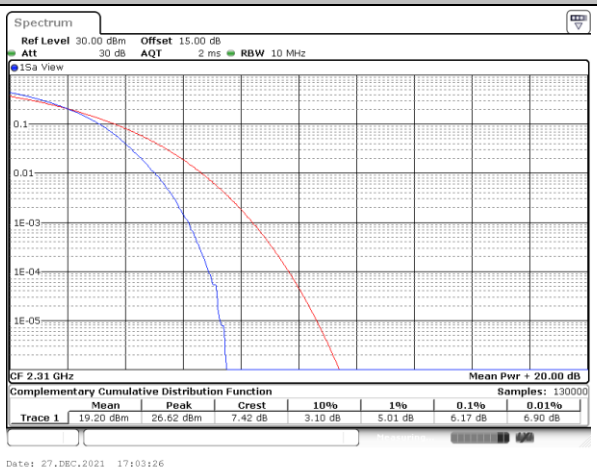


LTE Band 30 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB

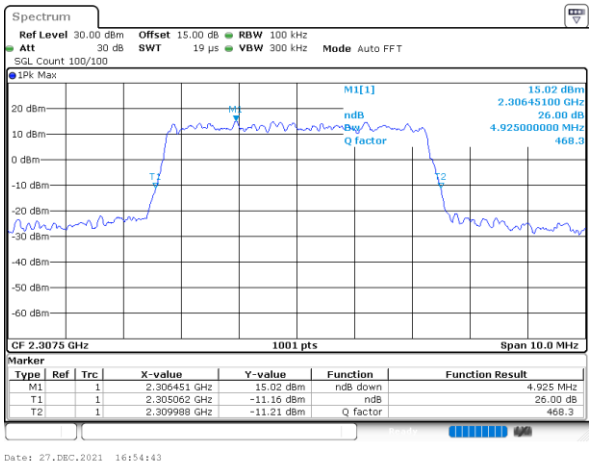


26dB Bandwidth

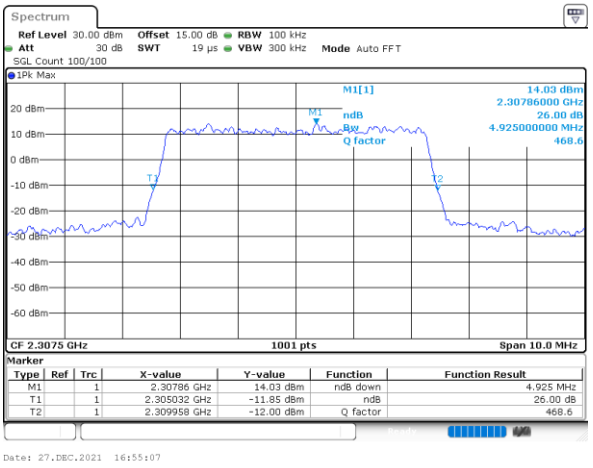
Mode	LTE Band 30 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.93	4.93	-	-	-	-	-	-
Middle CH	-	-	-	-	4.92	4.90	9.91	9.83	-	-	-	-
Highest CH	-	-	-	-	4.97	4.94	-	-	-	-	-	-
Mode	LTE Band 30 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.83	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.89	-	9.75	-	-	-	-	-
Highest CH	-	-	-	-	4.92	-	-	-	-	-	-	-

LTE Band 30

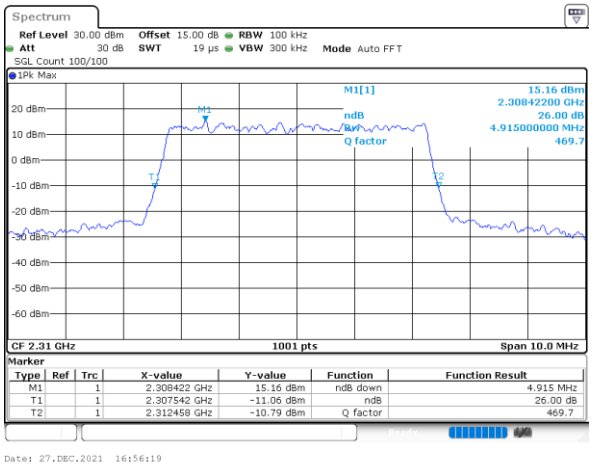
Lowest Channel / 5MHz / QPSK



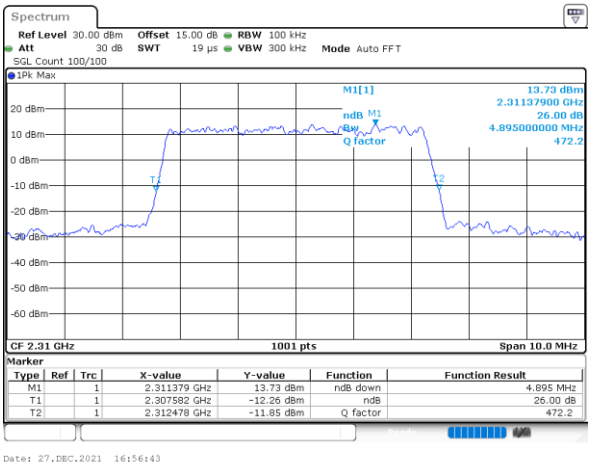
Lowest Channel / 5MHz / 16QAM



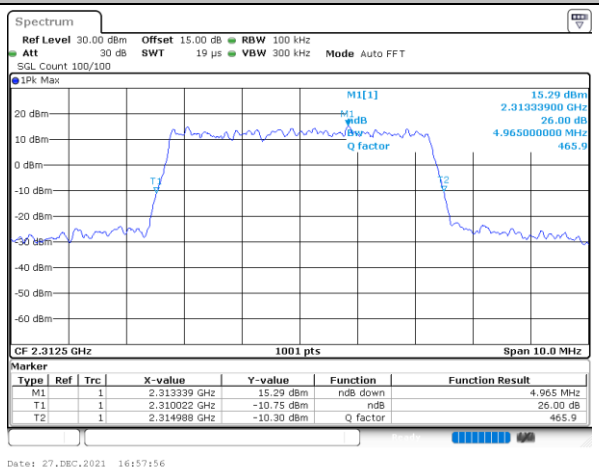
Middle Channel / 5MHz / QPSK



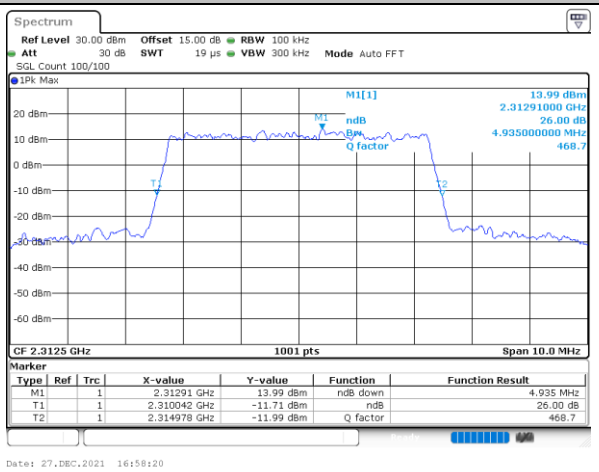
Middle Channel / 5MHz / 16QAM



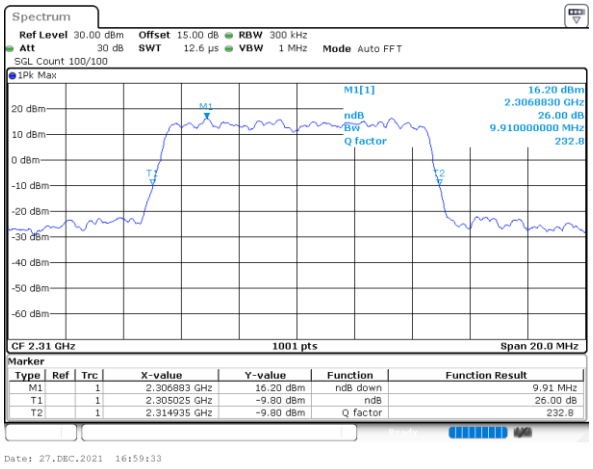
Highest Channel / 5MHz / QPSK

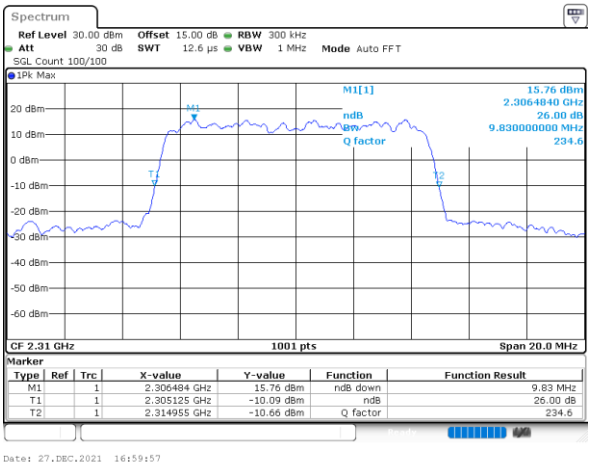


Highest Channel / 5MHz / 16QAM



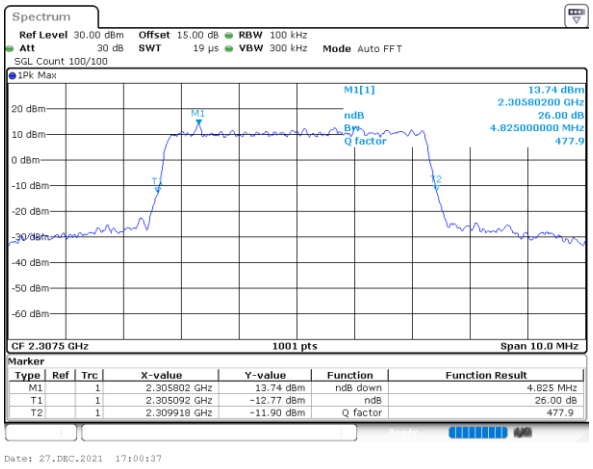
LTE Band 30	
Middle Channel / 10MHz / QPSK	**Middle Channel / 10MHz / 16QAM**





LTE Band 30

Lowest Channel / 5MHz / 64QAM



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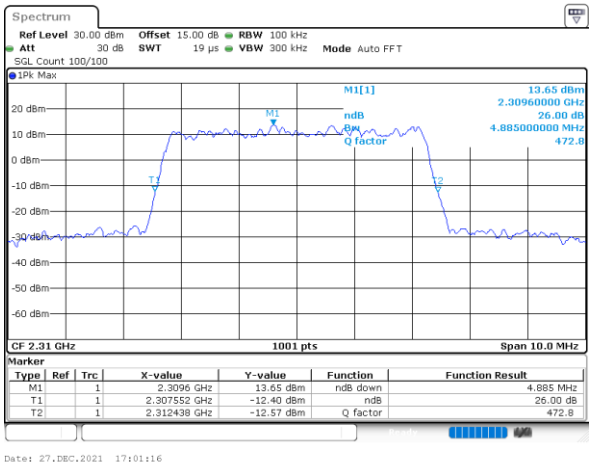
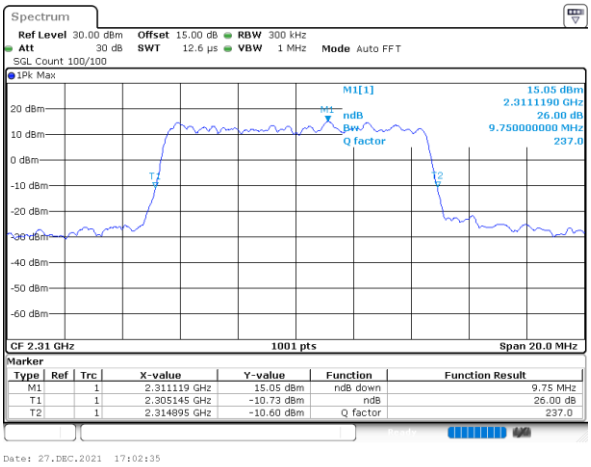
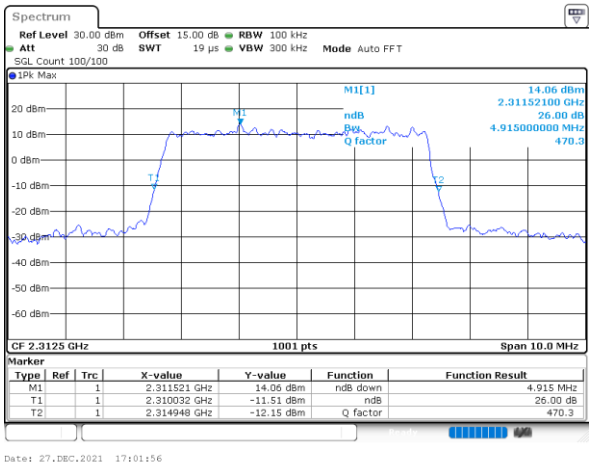
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



N/A

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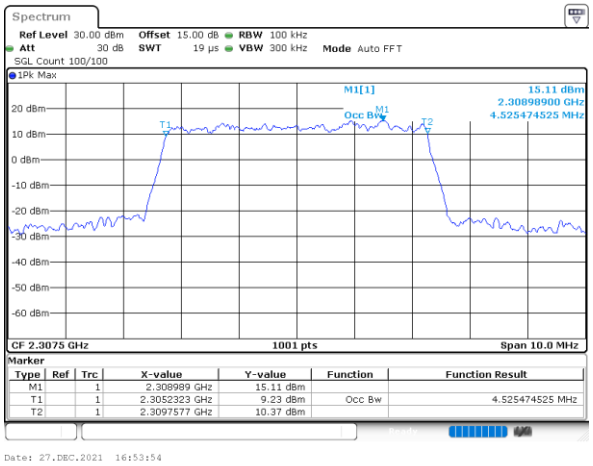
Occupied Bandwidth

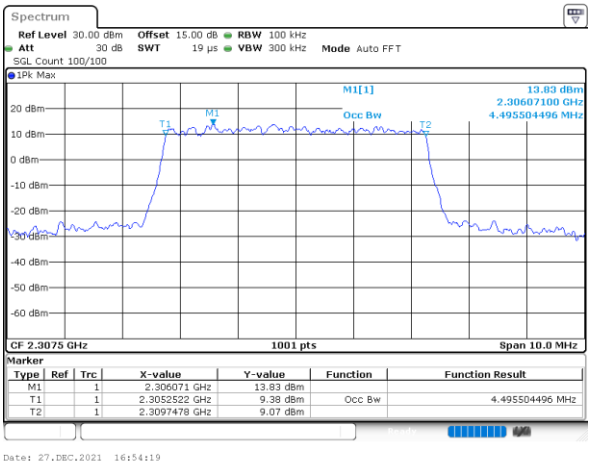
Mode	LTE Band 30 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.53	4.50	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.50	9.01	8.99	-	-	-	-
Highest CH	-	-	-	-	4.51	4.50	-	-	-	-	-	-
Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-

LTE Band 30

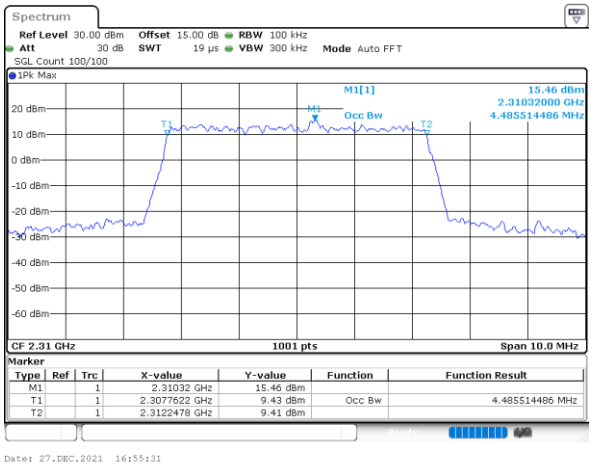
Lowest Channel / 5MHz / QPSK



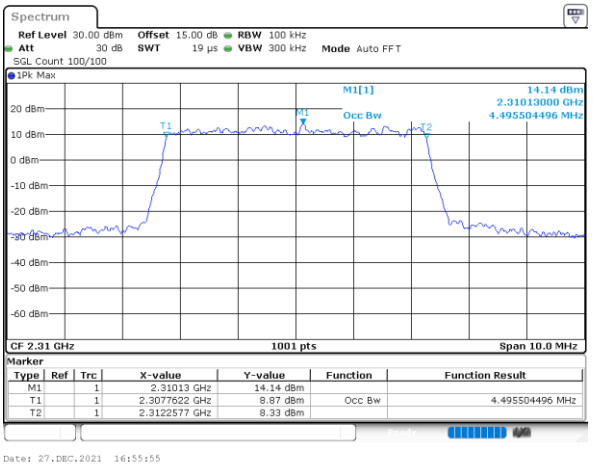
Lowest Channel / 5MHz / 16QAM



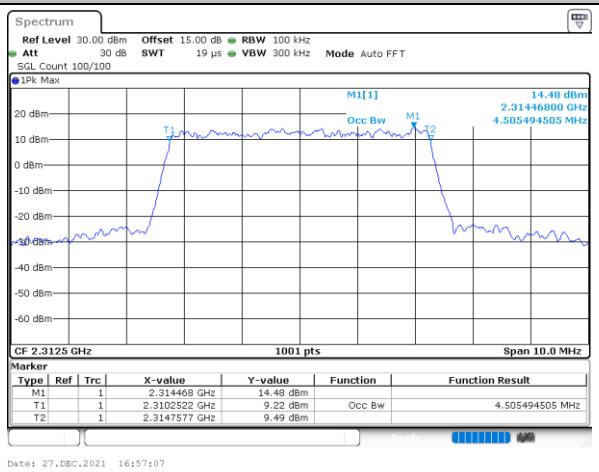
Middle Channel / 5MHz / QPSK



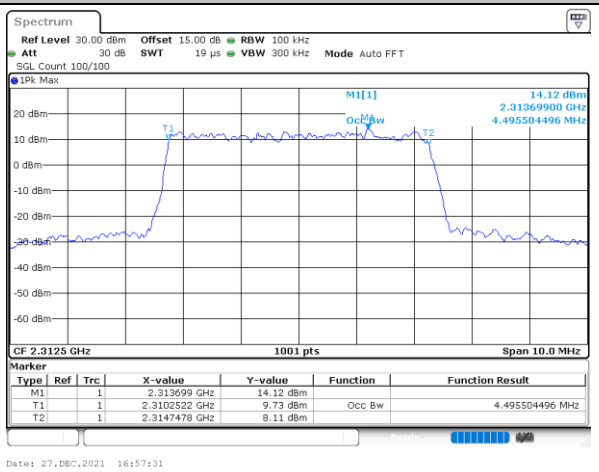
Middle Channel / 5MHz / 16QAM



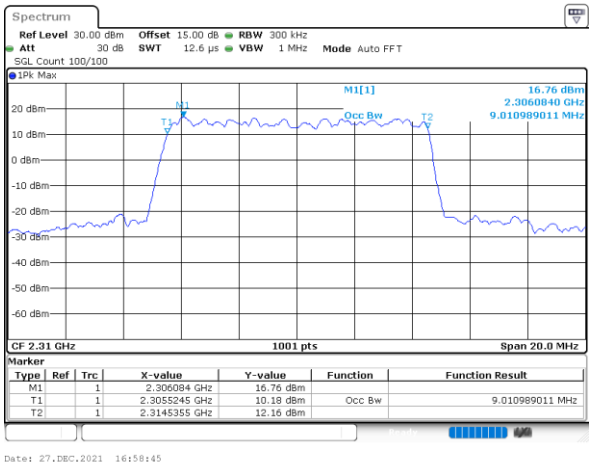
Highest Channel / 5MHz / QPSK

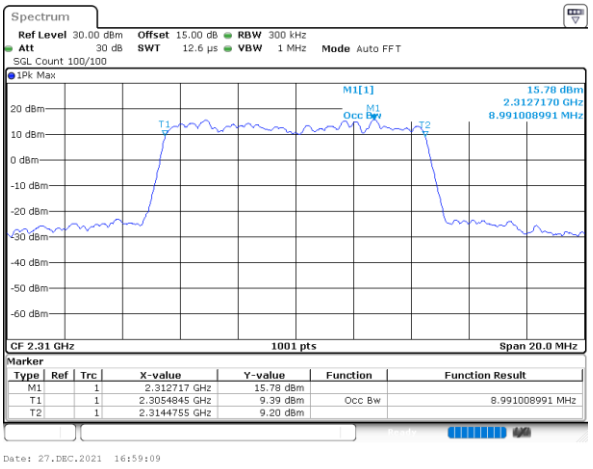


Highest Channel / 5MHz / 16QAM



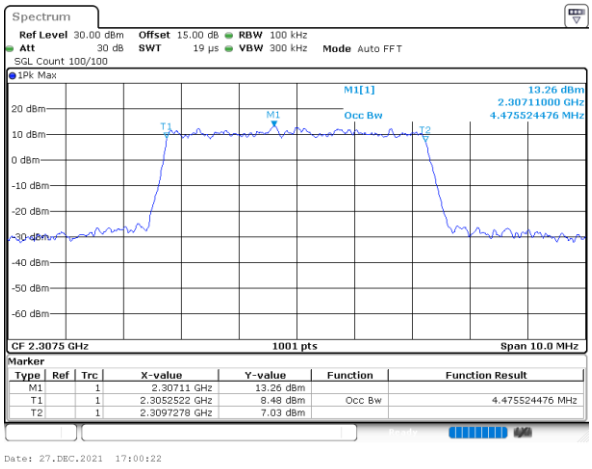
LTE Band 30	
Middle Channel / 10MHz / QPSK	**Middle Channel / 10MHz / 16QAM**





LTE Band 30

Lowest Channel / 5MHz / 64QAM



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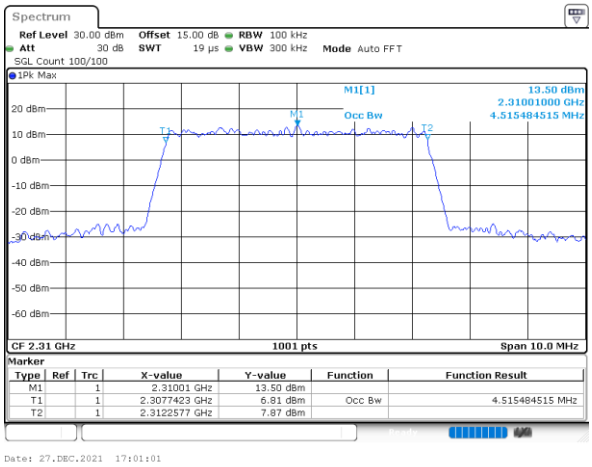
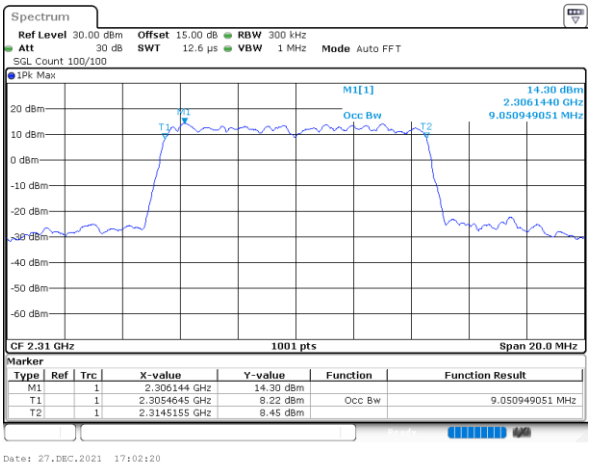
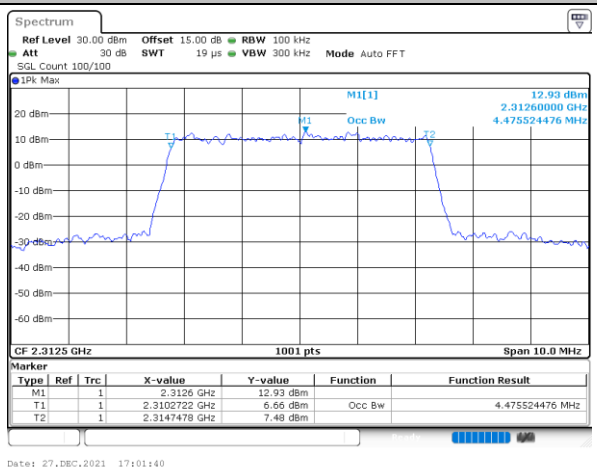
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



N/A

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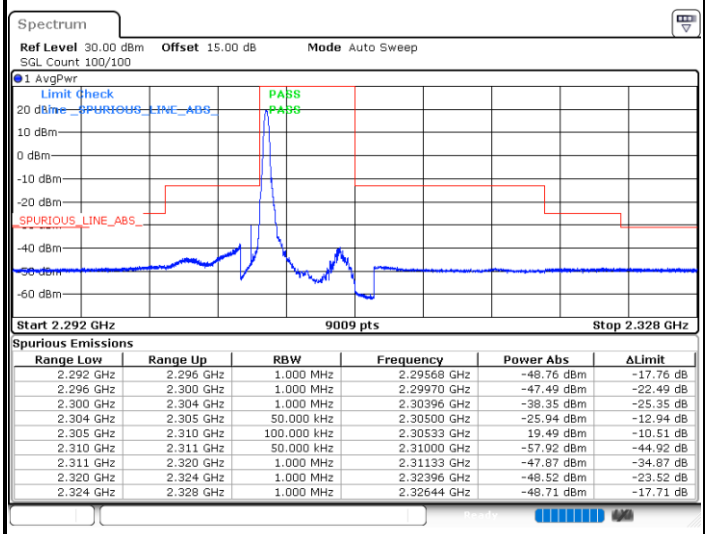
Conducted Band Edge

LTE Band 30 / 5MHz / QPSK

Lowest Band Edge / 1 RB

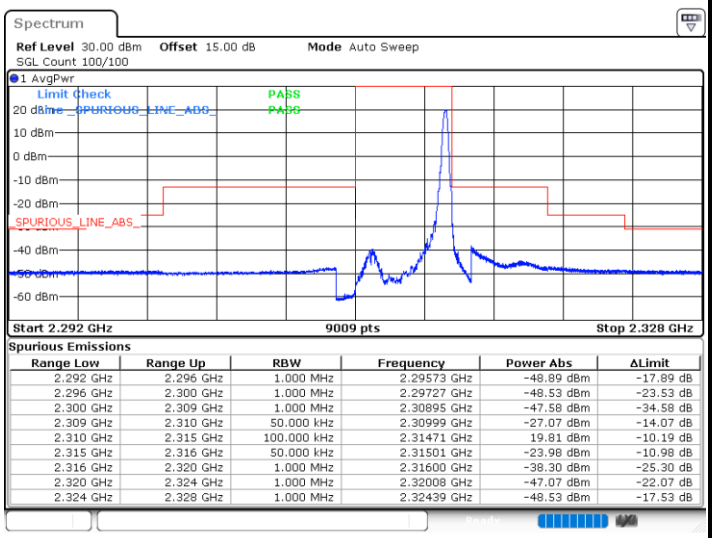


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29568 GHz	-48.76 dBm	-17.76 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29970 GHz	-47.49 dBm	-22.49 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30396 GHz	-38.35 dBm	-25.35 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-25.94 dBm	-12.94 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30533 GHz	19.49 dBm	-10.51 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31000 GHz	-57.92 dBm	-44.92 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31133 GHz	-47.87 dBm	-34.87 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32396 GHz	-48.52 dBm	-23.52 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32644 GHz	-48.71 dBm	-17.71 dB

Date: 27.DEC.2021 16:00:04

Highest Band Edge / 1 RB

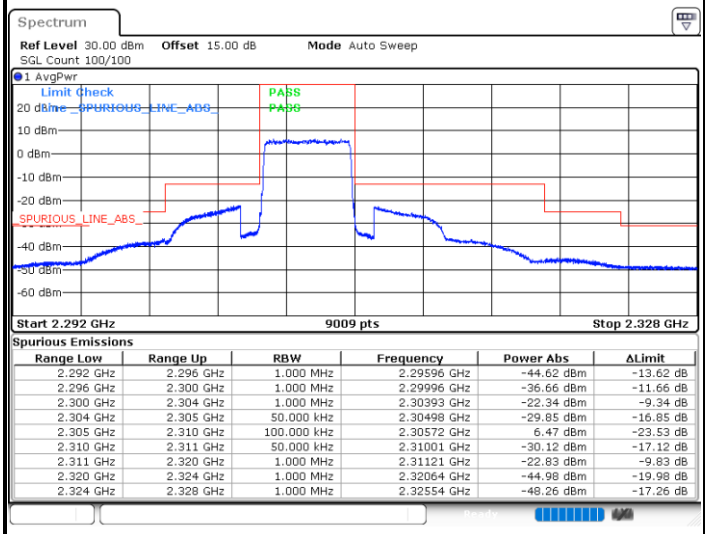


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29573 GHz	-48.89 dBm	-17.89 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29727 GHz	-48.53 dBm	-23.53 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30895 GHz	-47.58 dBm	-34.58 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30999 GHz	-27.07 dBm	-14.07 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31471 GHz	19.81 dBm	-10.19 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31501 GHz	-23.98 dBm	-10.98 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31600 GHz	-38.30 dBm	-25.30 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32008 GHz	-47.07 dBm	-22.07 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32439 GHz	-48.53 dBm	-17.53 dB

Date: 27.DEC.2021 16:07:25

Lowest Band Edge / Full RB

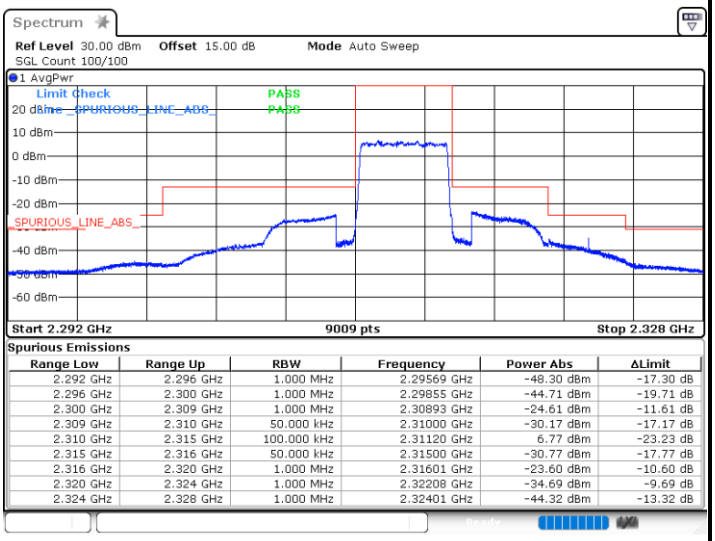


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29596 GHz	-44.62 dBm	-13.62 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29996 GHz	-36.66 dBm	-11.66 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30393 GHz	-22.34 dBm	-9.34 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30498 GHz	-29.85 dBm	-16.85 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30572 GHz	6.47 dBm	-23.53 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-30.12 dBm	-17.12 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31121 GHz	-22.83 dBm	-9.83 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32064 GHz	-44.98 dBm	-19.98 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32554 GHz	-48.26 dBm	-17.26 dB

Date: 27.DEC.2021 16:03:45

Highest Band Edge / Full RB



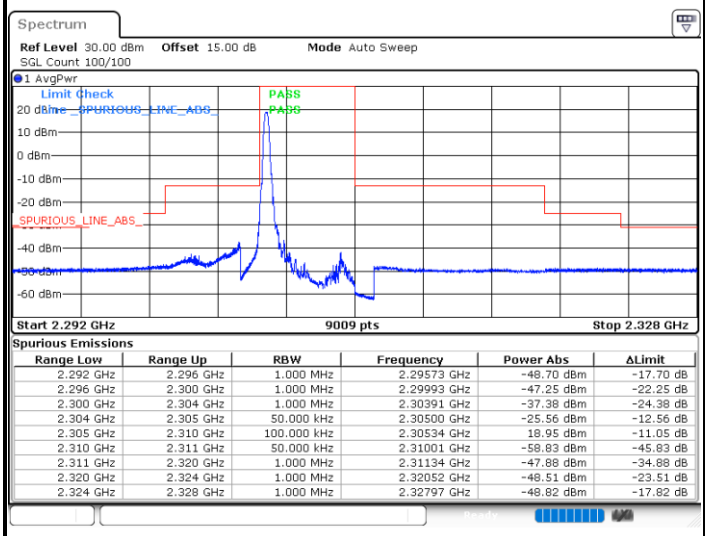
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29569 GHz	-48.30 dBm	-17.30 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29855 GHz	-44.71 dBm	-19.71 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30893 GHz	-24.61 dBm	-11.61 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.31000 GHz	-30.17 dBm	-17.17 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31120 GHz	6.77 dBm	-23.23 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-30.77 dBm	-17.77 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-23.60 dBm	-10.60 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32208 GHz	-34.69 dBm	-9.69 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32401 GHz	-44.32 dBm	-13.32 dB

Date: 27.DEC.2021 16:11:05

LTE Band 30 / 5MHz / 16QAM

Lowest Band Edge / 1RB

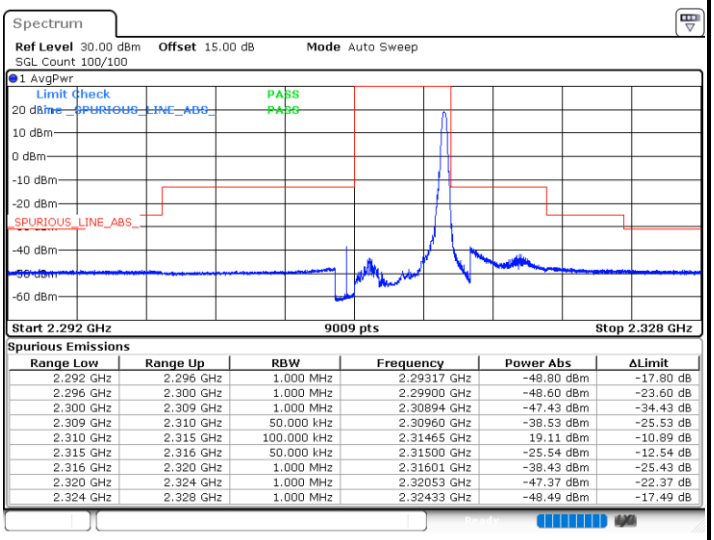


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29573 GHz	-48.70 dBm	-17.70 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29993 GHz	-47.25 dBm	-22.25 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30391 GHz	-37.38 dBm	-24.38 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-25.56 dBm	-12.56 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30534 GHz	18.95 dBm	-11.05 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-58.83 dBm	-45.83 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31134 GHz	-47.88 dBm	-34.88 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32052 GHz	-48.51 dBm	-23.51 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32797 GHz	-48.82 dBm	-17.82 dB

Date: 27.DEC.2021 16:01:18

Highest Band Edge / 1 RB

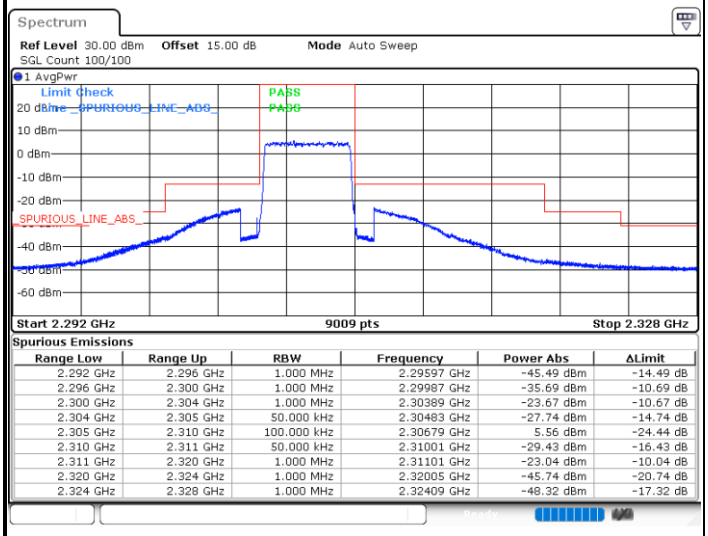


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29317 GHz	-48.80 dBm	-17.80 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29900 GHz	-48.60 dBm	-23.60 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30894 GHz	-47.43 dBm	-34.43 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30960 GHz	-38.53 dBm	-25.53 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31465 GHz	19.11 dBm	-10.89 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-25.54 dBm	-12.54 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-38.43 dBm	-25.43 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32053 GHz	-47.37 dBm	-22.37 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32433 GHz	-48.49 dBm	-17.49 dB

Date: 27.DEC.2021 16:08:39

Lowest Band Edge / Full RB

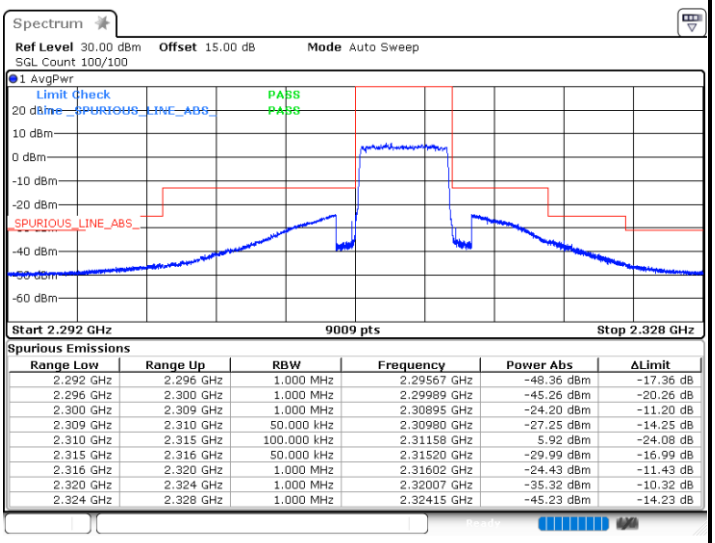


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29597 GHz	-45.49 dBm	-14.49 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29987 GHz	-35.69 dBm	-10.69 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30389 GHz	-23.67 dBm	-10.67 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30483 GHz	-27.74 dBm	-14.74 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30679 GHz	5.56 dBm	-24.44 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-29.43 dBm	-16.43 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31101 GHz	-23.04 dBm	-10.04 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32005 GHz	-45.74 dBm	-20.74 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32409 GHz	-48.32 dBm	-17.32 dB

Date: 27.DEC.2021 16:04:58

Highest Band Edge / Full RB



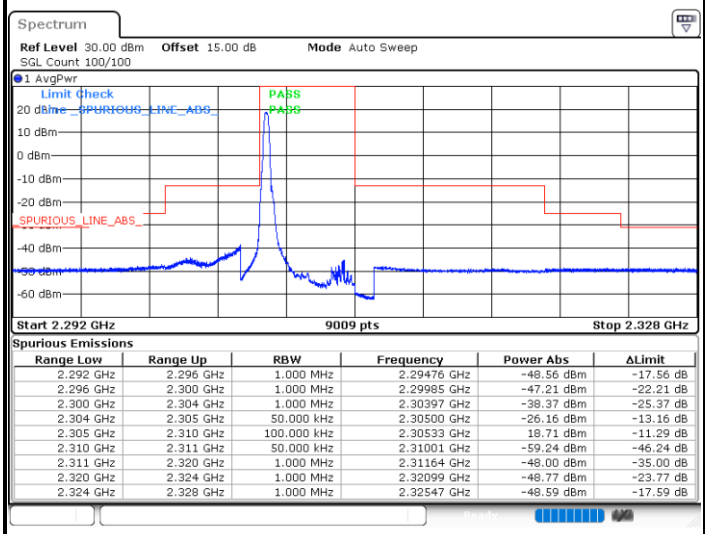
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29567 GHz	-48.36 dBm	-17.36 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29989 GHz	-45.26 dBm	-20.26 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30895 GHz	-24.20 dBm	-11.20 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30980 GHz	-27.25 dBm	-14.25 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31158 GHz	5.92 dBm	-24.08 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31520 GHz	-29.99 dBm	-16.99 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31602 GHz	-24.43 dBm	-11.43 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32007 GHz	-35.32 dBm	-10.32 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32415 GHz	-45.23 dBm	-14.23 dB

Date: 27.DEC.2021 16:12:19

LTE Band 30 / 5MHz / 64QAM

Lowest Band Edge / 1RB

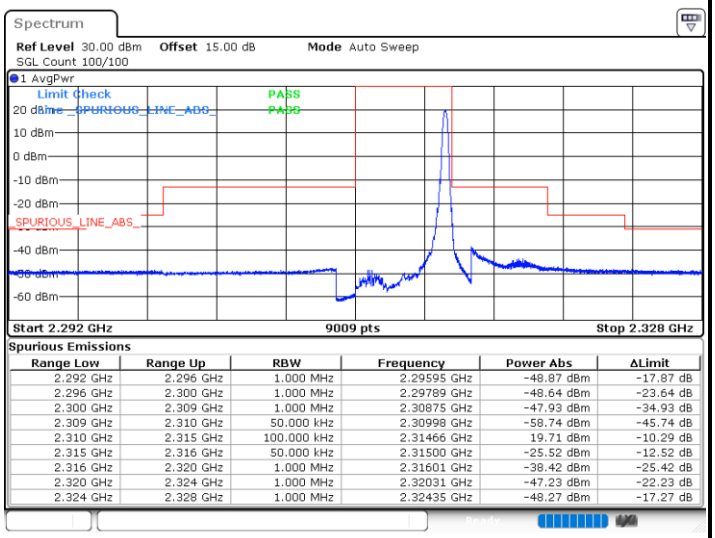


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29476 GHz	-48.56 dBm	-17.56 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29985 GHz	-47.21 dBm	-22.21 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30397 GHz	-38.37 dBm	-25.37 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-26.16 dBm	-13.16 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30533 GHz	18.71 dBm	-11.29 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-59.24 dBm	-46.24 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31164 GHz	-48.00 dBm	-35.00 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32099 GHz	-48.77 dBm	-23.77 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32547 GHz	-48.59 dBm	-17.59 dB

Date: 27.DEC.2021 16:02:31

Highest Band Edge / 1 RB

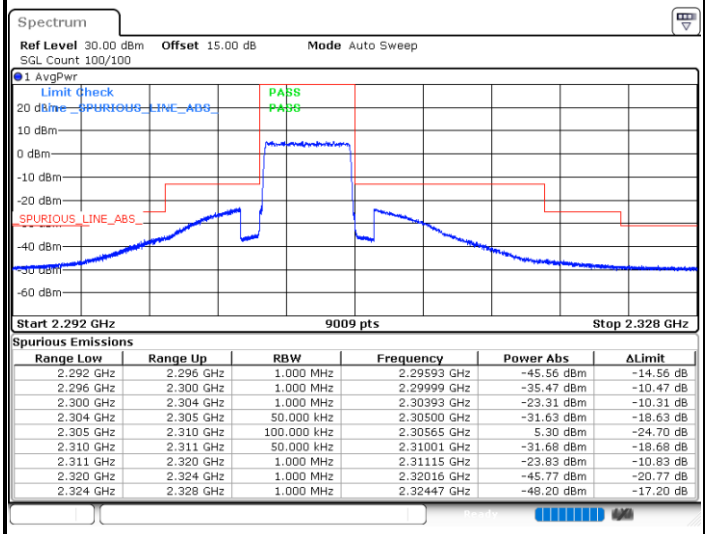


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29595 GHz	-48.87 dBm	-17.87 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29789 GHz	-48.64 dBm	-23.64 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30875 GHz	-47.93 dBm	-34.93 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30998 GHz	-58.74 dBm	-45.74 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31466 GHz	19.71 dBm	-10.29 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31500 GHz	-25.52 dBm	-12.52 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-38.42 dBm	-25.42 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32031 GHz	-47.23 dBm	-22.23 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32435 GHz	-48.27 dBm	-17.27 dB

Date: 27.DEC.2021 16:09:52

Lowest Band Edge / Full RB

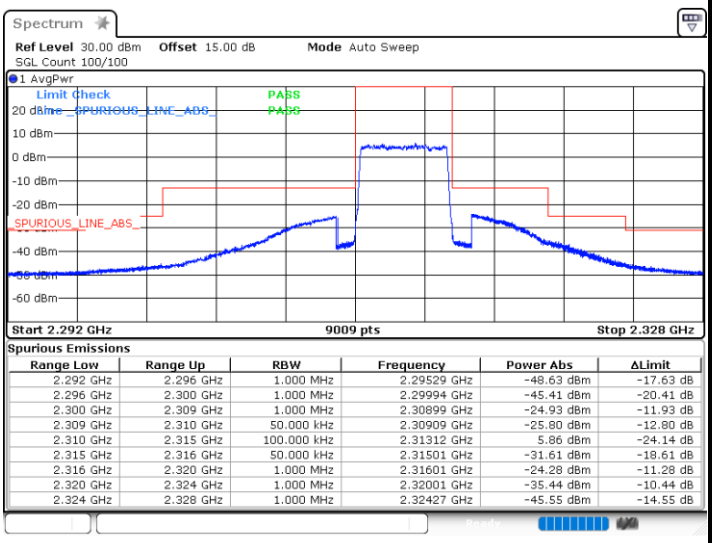


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29593 GHz	-45.56 dBm	-14.56 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29999 GHz	-35.47 dBm	-10.47 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30393 GHz	-23.31 dBm	-10.31 dB
2.304 GHz	2.305 GHz	50.000 kHz	2.30500 GHz	-31.63 dBm	-18.63 dB
2.305 GHz	2.310 GHz	100.000 kHz	2.30565 GHz	5.30 dBm	-24.70 dB
2.310 GHz	2.311 GHz	50.000 kHz	2.31001 GHz	-31.68 dBm	-18.68 dB
2.311 GHz	2.320 GHz	1.000 MHz	2.31115 GHz	-23.83 dBm	-10.83 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32016 GHz	-45.77 dBm	-20.77 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32447 GHz	-48.20 dBm	-17.20 dB

Date: 27.DEC.2021 16:06:12

Highest Band Edge / Full RB



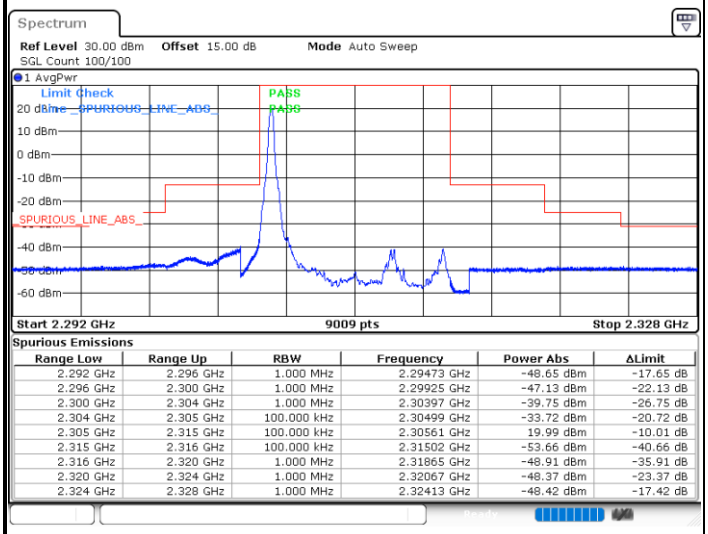
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29529 GHz	-48.63 dBm	-17.63 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29994 GHz	-45.41 dBm	-20.41 dB
2.300 GHz	2.309 GHz	1.000 MHz	2.30899 GHz	-24.93 dBm	-11.93 dB
2.309 GHz	2.310 GHz	50.000 kHz	2.30909 GHz	-25.80 dBm	-12.80 dB
2.310 GHz	2.315 GHz	100.000 kHz	2.31312 GHz	5.86 dBm	-24.14 dB
2.315 GHz	2.316 GHz	50.000 kHz	2.31501 GHz	-31.61 dBm	-18.61 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31601 GHz	-24.28 dBm	-11.28 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-35.44 dBm	-10.44 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32427 GHz	-45.55 dBm	-14.55 dB

Date: 27.DEC.2021 16:13:32

LTE Band 30 / 10MHz / QPSK

Lowest Band Edge / 1 RB

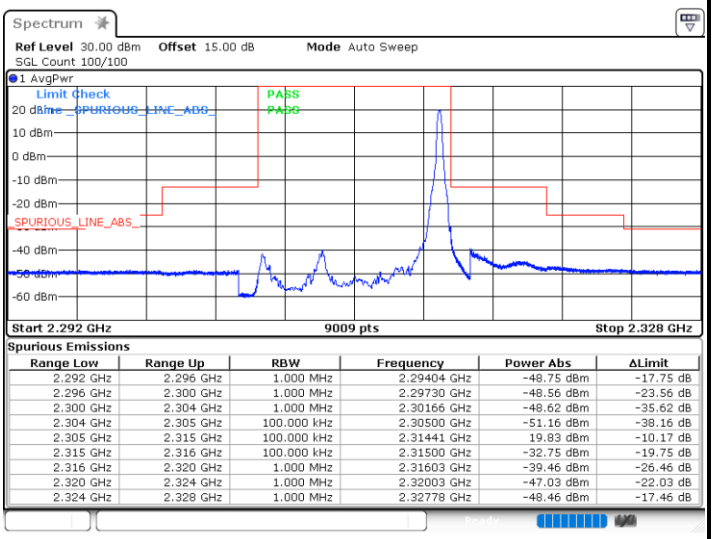


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29473 GHz	-48.65 dBm	-17.65 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29925 GHz	-47.13 dBm	-22.13 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30397 GHz	-39.75 dBm	-26.75 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-33.72 dBm	-20.72 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30561 GHz	19.99 dBm	-10.01 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31502 GHz	-53.66 dBm	-40.66 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31865 GHz	-48.91 dBm	-35.91 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32067 GHz	-48.37 dBm	-23.37 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32413 GHz	-48.42 dBm	-17.42 dB

Date: 27.DEC.2021 16:14:46

Highest Band Edge / 1 RB

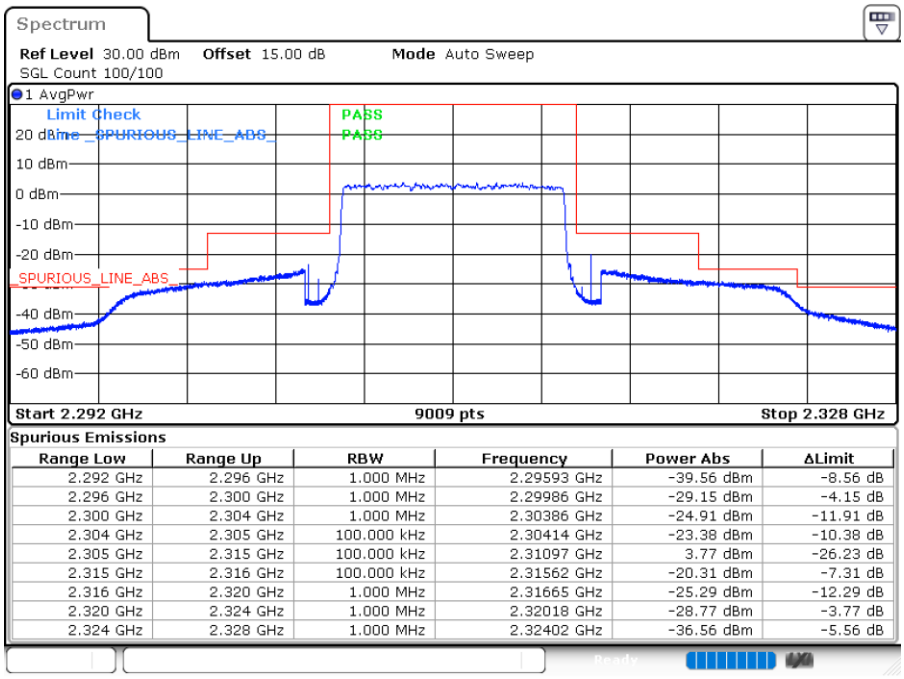


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29404 GHz	-48.75 dBm	-17.75 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29730 GHz	-48.56 dBm	-23.56 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30166 GHz	-48.62 dBm	-35.62 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-51.16 dBm	-38.16 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31441 GHz	19.83 dBm	-10.17 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-32.75 dBm	-19.75 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31603 GHz	-39.46 dBm	-26.46 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32003 GHz	-47.03 dBm	-22.03 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32778 GHz	-48.46 dBm	-17.46 dB

Date: 27.DEC.2021 16:18:24

Band Edge / Full RB



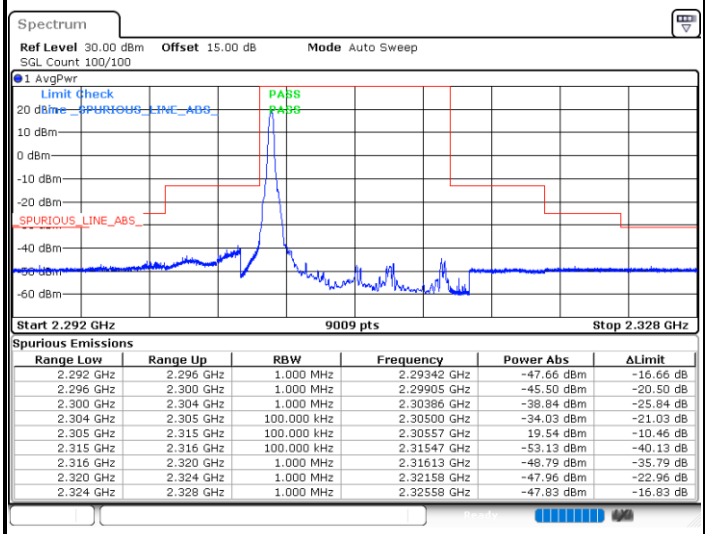
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29593 GHz	-39.56 dBm	-8.56 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29986 GHz	-29.15 dBm	-4.15 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30386 GHz	-24.91 dBm	-11.91 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30414 GHz	-23.38 dBm	-10.38 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31097 GHz	3.77 dBm	-26.23 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31562 GHz	-20.31 dBm	-7.31 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31665 GHz	-25.29 dBm	-12.29 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32018 GHz	-28.77 dBm	-3.77 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32402 GHz	-36.56 dBm	-5.56 dB

Date: 27.DEC.2021 16:27:22

LTE Band 30 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

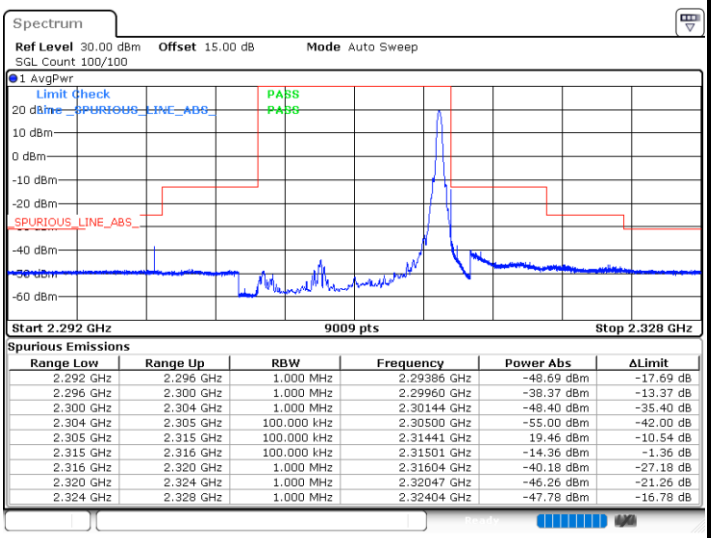


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29342 GHz	-47.66 dBm	-16.66 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29905 GHz	-45.50 dBm	-20.50 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30386 GHz	-38.84 dBm	-25.84 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-34.03 dBm	-21.03 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30557 GHz	19.54 dBm	-10.46 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31547 GHz	-53.13 dBm	-40.13 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31613 GHz	-48.79 dBm	-35.79 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32158 GHz	-47.96 dBm	-22.96 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32558 GHz	-47.83 dBm	-16.83 dB

Date: 27.DEC.2021 16:15:58

Highest Band Edge / 1 RB

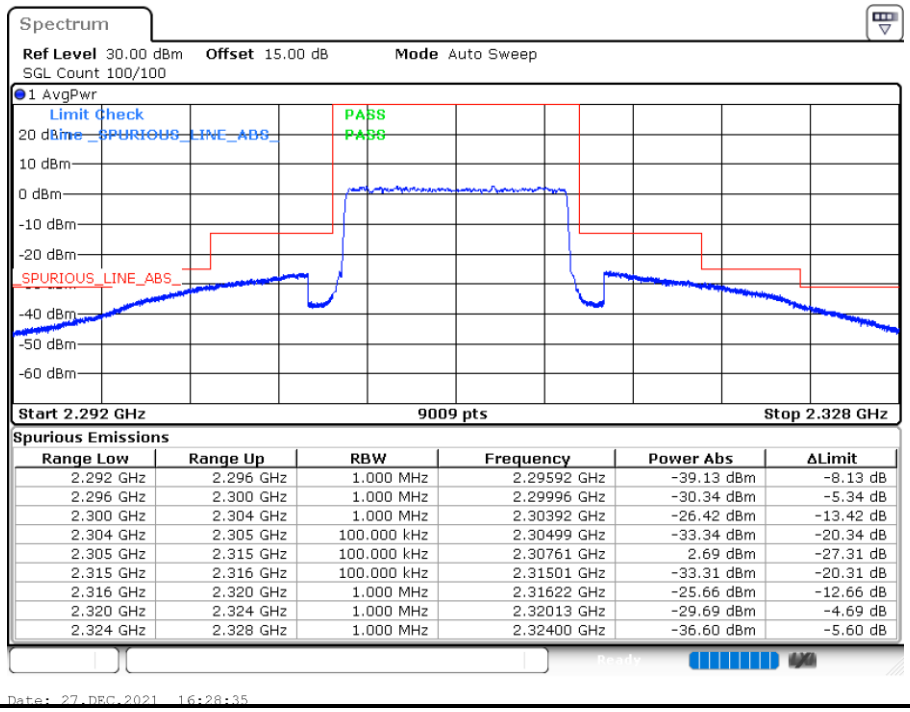


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29386 GHz	-48.69 dBm	-17.69 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29960 GHz	-38.37 dBm	-13.37 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30144 GHz	-48.40 dBm	-35.40 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-55.00 dBm	-42.00 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31441 GHz	19.46 dBm	-10.54 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-14.36 dBm	-1.36 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31604 GHz	-40.18 dBm	-27.18 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32047 GHz	-46.26 dBm	-21.26 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32404 GHz	-47.78 dBm	-16.78 dB

Date: 27.DEC.2021 16:24:57

Band Edge / Full RB



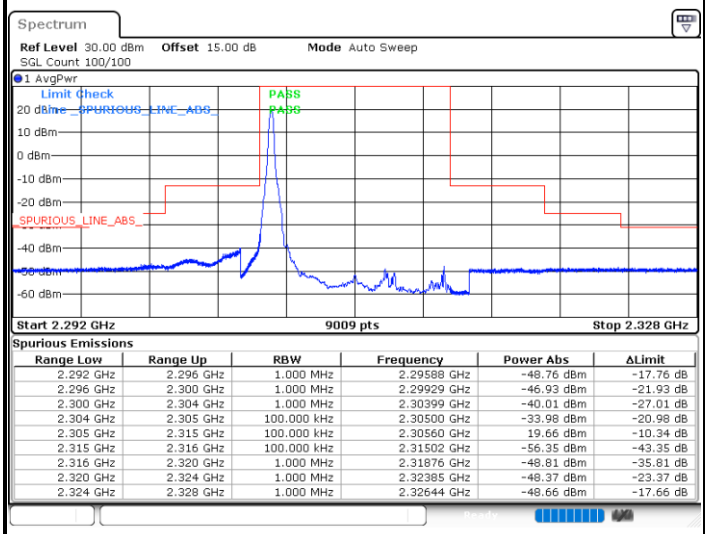
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29592 GHz	-39.13 dBm	-8.13 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29996 GHz	-30.34 dBm	-5.34 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30392 GHz	-26.42 dBm	-13.42 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-33.34 dBm	-20.34 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30761 GHz	2.69 dBm	-27.31 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31501 GHz	-33.31 dBm	-20.31 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31622 GHz	-25.66 dBm	-12.66 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32013 GHz	-29.69 dBm	-4.69 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32400 GHz	-36.60 dBm	-5.60 dB

Date: 27.DEC.2021 16:28:35

LTE Band 30 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

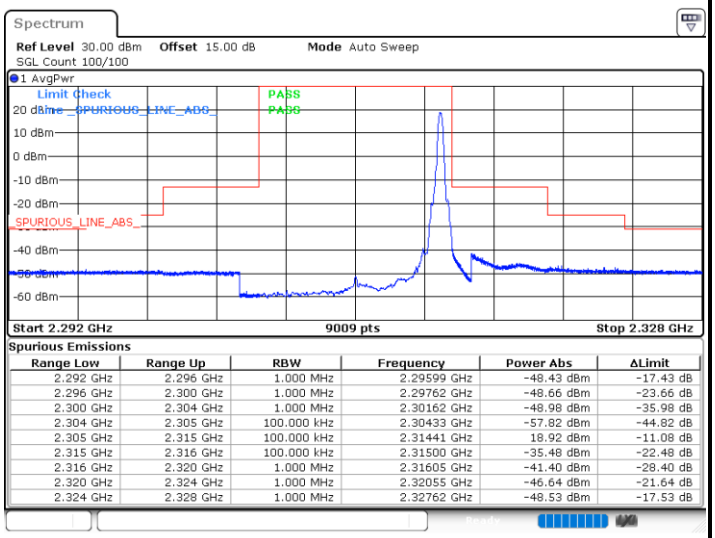


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29588 GHz	-48.76 dBm	-17.76 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29929 GHz	-46.93 dBm	-21.93 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30399 GHz	-40.01 dBm	-27.01 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30500 GHz	-33.98 dBm	-20.98 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30560 GHz	19.66 dBm	-10.34 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31502 GHz	-56.35 dBm	-43.35 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31876 GHz	-48.81 dBm	-35.81 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32385 GHz	-48.37 dBm	-23.37 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32644 GHz	-48.66 dBm	-17.66 dB

Date: 27.DEC.2021 16:17:11

Highest Band Edge / 1 RB

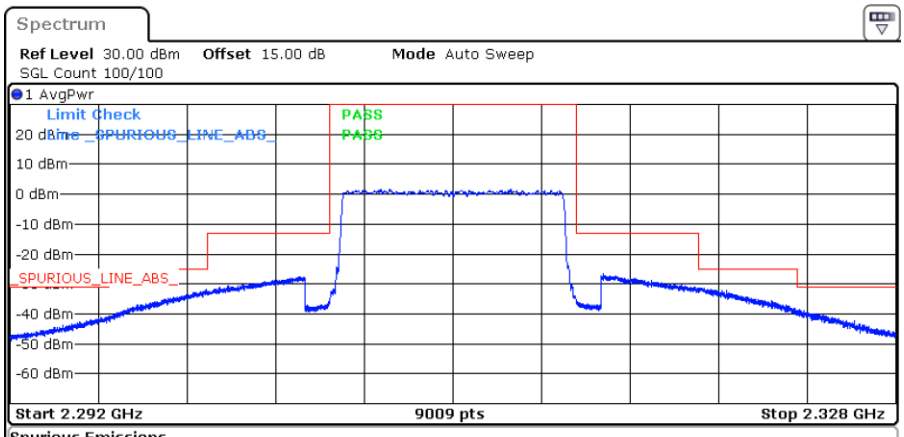


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29599 GHz	-48.43 dBm	-17.43 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29762 GHz	-48.66 dBm	-23.66 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30162 GHz	-48.98 dBm	-35.98 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30433 GHz	-57.82 dBm	-44.82 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.31441 GHz	18.92 dBm	-11.08 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-35.48 dBm	-22.48 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31605 GHz	-41.40 dBm	-28.40 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32055 GHz	-46.64 dBm	-21.64 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32762 GHz	-48.53 dBm	-17.53 dB

Date: 27.DEC.2021 17:06:41

Band Edge / Full RB



Spurious Emissions

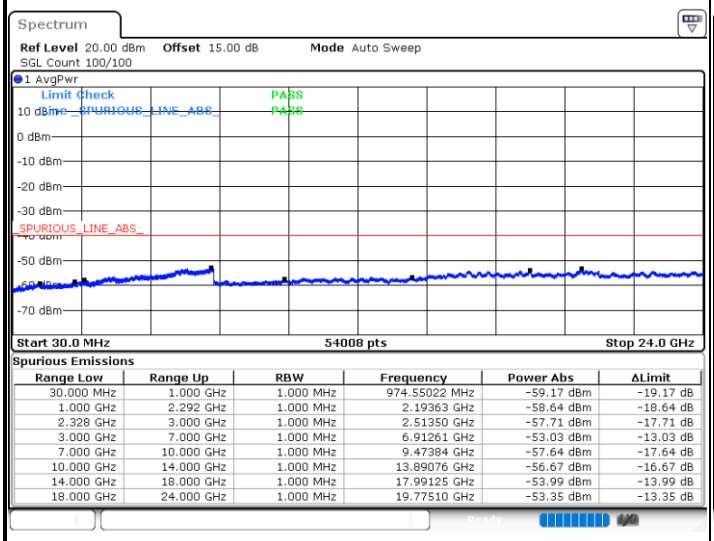
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.292 GHz	2.296 GHz	1.000 MHz	2.29591 GHz	-41.12 dBm	-10.12 dB
2.296 GHz	2.300 GHz	1.000 MHz	2.29996 GHz	-31.79 dBm	-6.79 dB
2.300 GHz	2.304 GHz	1.000 MHz	2.30393 GHz	-27.67 dBm	-14.67 dB
2.304 GHz	2.305 GHz	100.000 kHz	2.30499 GHz	-34.94 dBm	-21.94 dB
2.305 GHz	2.315 GHz	100.000 kHz	2.30706 GHz	1.59 dBm	-28.41 dB
2.315 GHz	2.316 GHz	100.000 kHz	2.31500 GHz	-35.02 dBm	-22.02 dB
2.316 GHz	2.320 GHz	1.000 MHz	2.31609 GHz	-26.61 dBm	-13.61 dB
2.320 GHz	2.324 GHz	1.000 MHz	2.32001 GHz	-31.36 dBm	-6.36 dB
2.324 GHz	2.328 GHz	1.000 MHz	2.32408 GHz	-38.63 dBm	-7.63 dB

Date: 27.DEC.2021 16:29:48

Conducted Spurious Emission

LTE Band 30 / 5MHz

Lowest Channel / QPSK

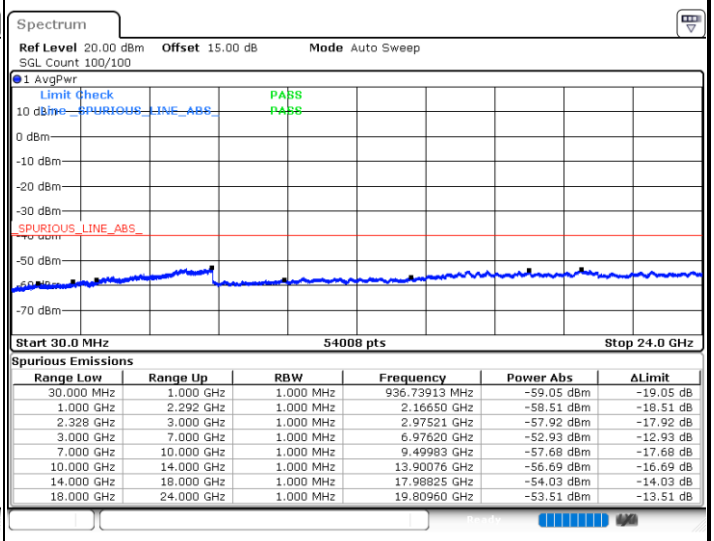


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	974.55022 MHz	-59.17 dBm	-19.17 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.19363 GHz	-58.64 dBm	-18.64 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.51350 GHz	-57.71 dBm	-17.71 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91261 GHz	-53.03 dBm	-13.03 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.47384 GHz	-57.64 dBm	-17.64 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.89076 GHz	-56.67 dBm	-16.67 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.99125 GHz	-53.99 dBm	-13.99 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.77510 GHz	-53.35 dBm	-13.35 dB

Date: 27.DEC.2021 16:32:04

Lowest Channel / 16QAM

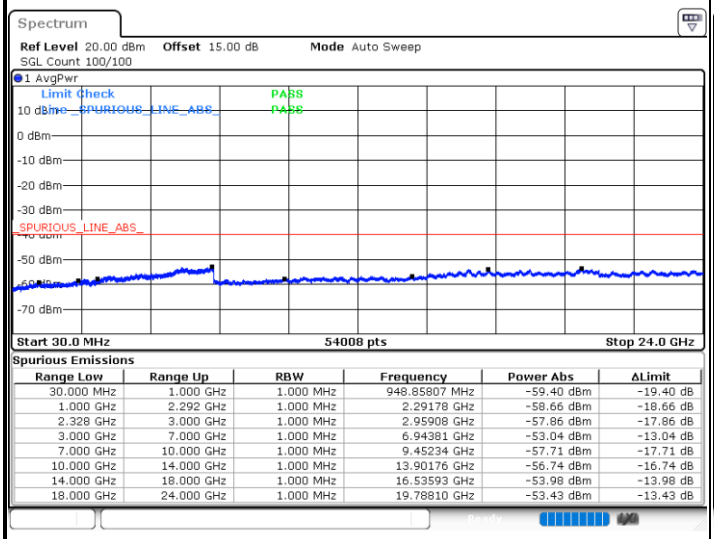


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	936.73913 MHz	-59.05 dBm	-19.05 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.16650 GHz	-58.51 dBm	-18.51 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.97521 GHz	-57.92 dBm	-17.92 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.97620 GHz	-52.93 dBm	-12.93 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.49983 GHz	-57.68 dBm	-17.68 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.90076 GHz	-56.69 dBm	-16.69 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.98825 GHz	-54.03 dBm	-14.03 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.80960 GHz	-53.51 dBm	-13.51 dB

Date: 27.DEC.2021 16:33:16

Middle Channel / QPSK

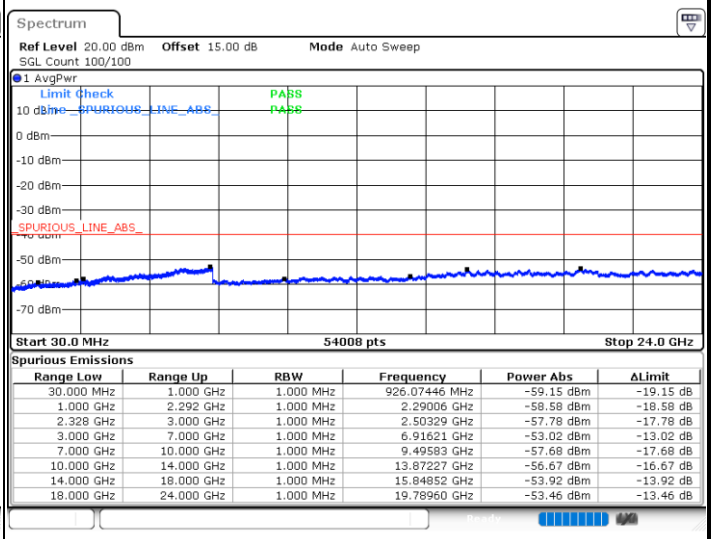


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	948.85807 MHz	-59.40 dBm	-19.40 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.29178 GHz	-58.66 dBm	-18.66 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.95908 GHz	-57.86 dBm	-17.86 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94381 GHz	-53.04 dBm	-13.04 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.45234 GHz	-57.71 dBm	-17.71 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.90176 GHz	-56.74 dBm	-16.74 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.53593 GHz	-53.98 dBm	-13.98 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.78810 GHz	-53.43 dBm	-13.43 dB

Date: 27.DEC.2021 16:34:28

Middle Channel / 16QAM



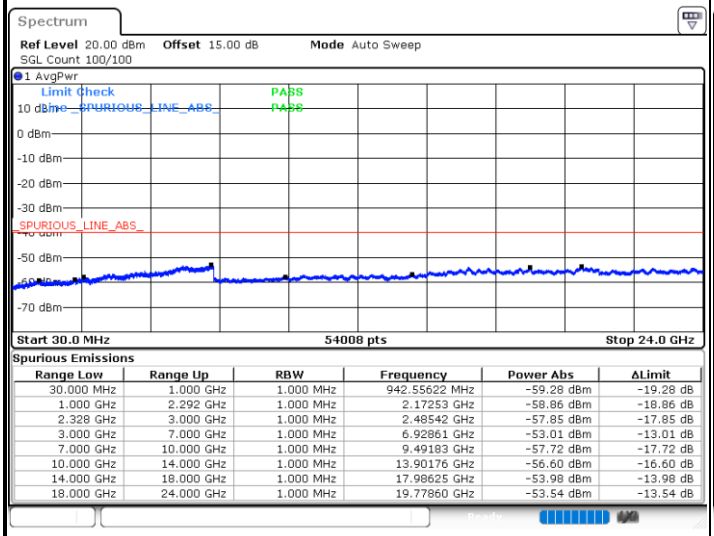
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	926.07446 MHz	-59.15 dBm	-19.15 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.29006 GHz	-58.58 dBm	-18.58 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.50329 GHz	-57.78 dBm	-17.78 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91621 GHz	-53.02 dBm	-13.02 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.49583 GHz	-57.68 dBm	-17.68 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.87227 GHz	-56.67 dBm	-16.67 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.84852 GHz	-53.92 dBm	-13.92 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.78960 GHz	-53.46 dBm	-13.46 dB

Date: 27.DEC.2021 16:35:39

LTE Band 30 / 5MHz

Highest Channel / QPSK

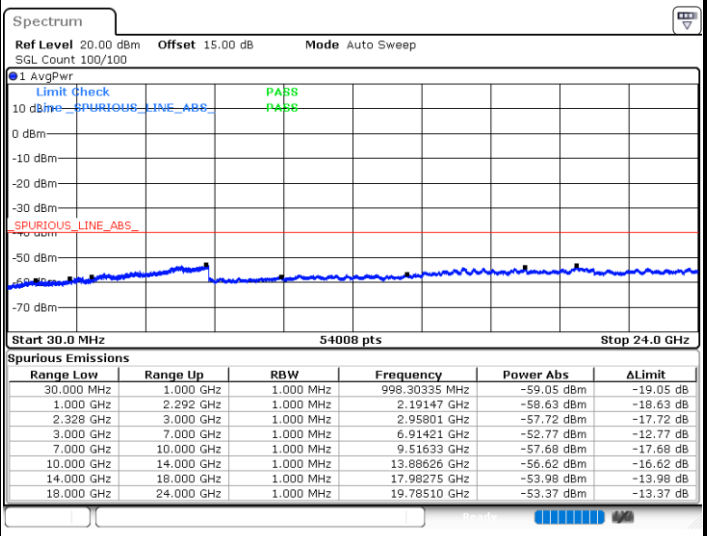


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	942.55622 MHz	-59.28 dBm	-19.28 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.17253 GHz	-58.86 dBm	-18.86 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.48542 GHz	-57.85 dBm	-17.85 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92861 GHz	-53.01 dBm	-13.01 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.49183 GHz	-57.72 dBm	-17.72 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.90176 GHz	-56.60 dBm	-16.60 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.98625 GHz	-53.98 dBm	-13.98 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.77860 GHz	-53.54 dBm	-13.54 dB

Date: 27.DEC.2021 16:36:51

Highest Channel / 16QAM



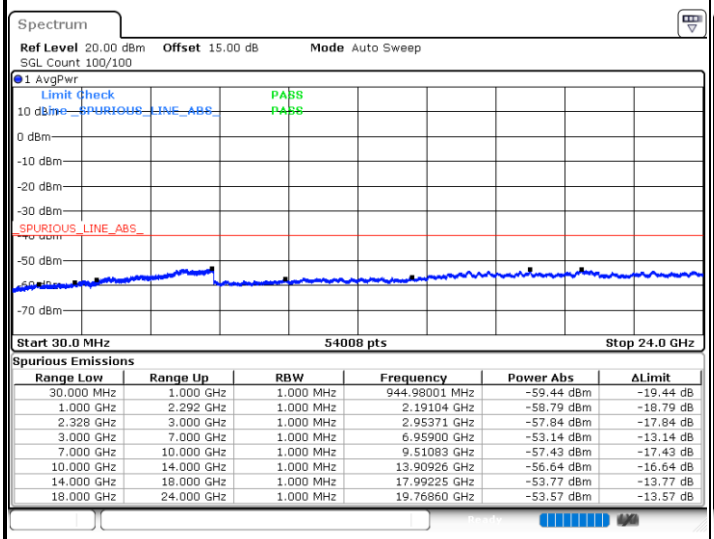
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	998.30335 MHz	-59.05 dBm	-19.05 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.19147 GHz	-58.63 dBm	-18.63 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.95801 GHz	-57.72 dBm	-17.72 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91421 GHz	-52.77 dBm	-12.77 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.51633 GHz	-57.68 dBm	-17.68 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.88626 GHz	-56.62 dBm	-16.62 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.98275 GHz	-53.98 dBm	-13.98 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.78510 GHz	-53.37 dBm	-13.37 dB

Date: 27.DEC.2021 16:38:04

LTE Band 30 / 10MHz

Middle Channel / QPSK

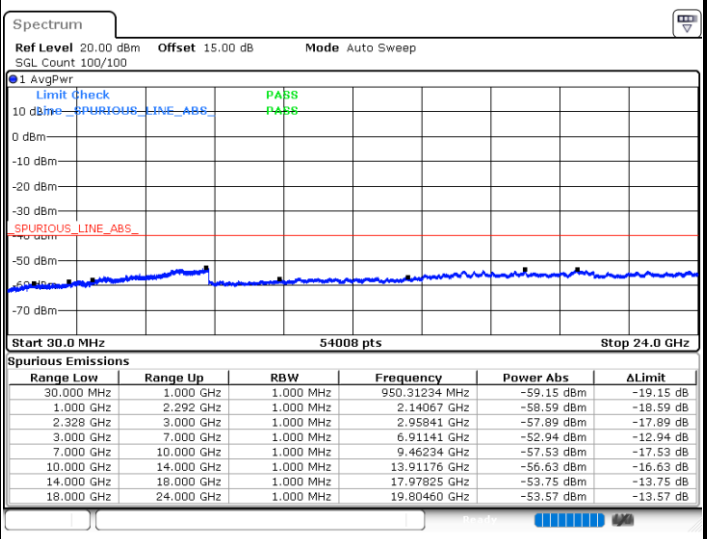


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	944.98001 MHz	-59.44 dBm	-19.44 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.19104 GHz	-58.79 dBm	-18.79 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.95371 GHz	-57.84 dBm	-17.84 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95900 GHz	-53.14 dBm	-13.14 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.51083 GHz	-57.43 dBm	-17.43 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.90926 GHz	-56.64 dBm	-16.64 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.99225 GHz	-53.77 dBm	-13.77 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.76860 GHz	-53.57 dBm	-13.57 dB

Date: 27.DEC.2021 16:44:04

Middle Channel / 16QAM



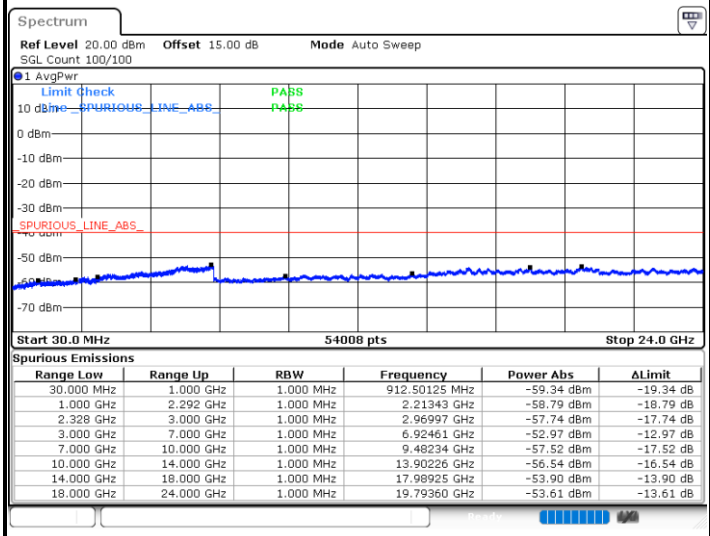
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	950.31234 MHz	-59.15 dBm	-19.15 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.14067 GHz	-58.59 dBm	-18.59 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.95841 GHz	-57.89 dBm	-17.89 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91141 GHz	-52.94 dBm	-12.94 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.46234 GHz	-57.53 dBm	-17.53 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.91176 GHz	-56.63 dBm	-16.63 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.97825 GHz	-53.75 dBm	-13.75 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.80460 GHz	-53.57 dBm	-13.57 dB

Date: 27.DEC.2021 16:45:15

LTE Band 30 / 5MHz

Lowest Channel / 64QAM

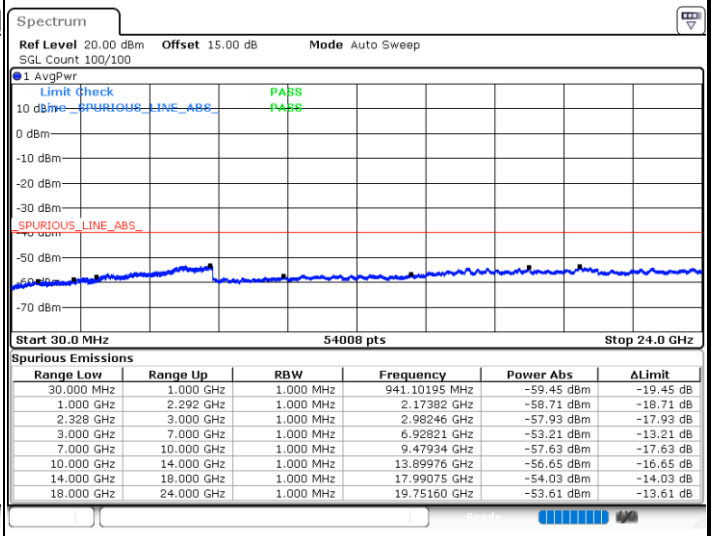


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	912.50125 MHz	-59.34 dBm	-19.34 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.21343 GHz	-58.79 dBm	-18.79 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.96997 GHz	-57.74 dBm	-17.74 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92461 GHz	-52.97 dBm	-12.97 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.48234 GHz	-57.52 dBm	-17.52 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.90226 GHz	-56.54 dBm	-16.54 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.98925 GHz	-53.90 dBm	-13.90 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.79360 GHz	-53.61 dBm	-13.61 dB

Date: 27.DEC.2021 16:39:16

Middle Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	941.10195 MHz	-59.45 dBm	-19.45 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.17382 GHz	-58.71 dBm	-18.71 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.98246 GHz	-57.93 dBm	-17.93 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.92821 GHz	-53.21 dBm	-13.21 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.47934 GHz	-57.63 dBm	-17.63 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.89976 GHz	-56.65 dBm	-16.65 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.99075 GHz	-54.03 dBm	-14.03 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.75160 GHz	-53.61 dBm	-13.61 dB

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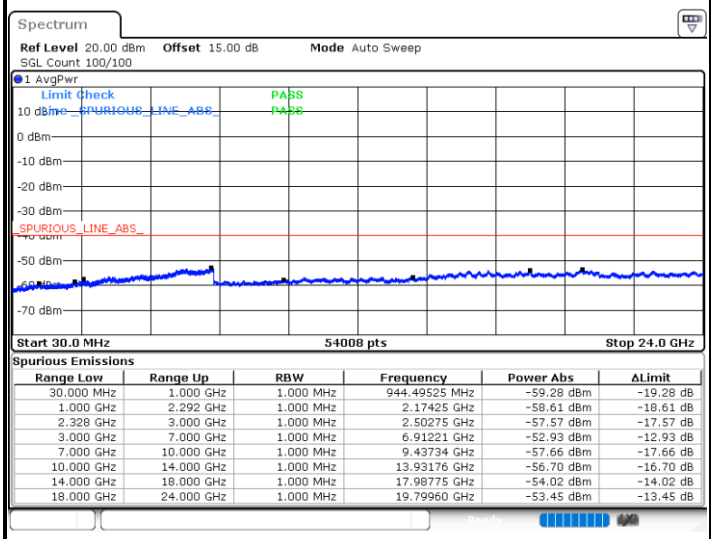
Highest Channel / 64QAM



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	944.49525 MHz	-59.28 dBm	-19.28 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.17425 GHz	-58.61 dBm	-18.61 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.50275 GHz	-57.57 dBm	-17.57 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91221 GHz	-52.93 dBm	-12.93 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.43734 GHz	-57.66 dBm	-17.66 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.93176 GHz	-56.70 dBm	-16.70 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.98775 GHz	-54.02 dBm	-14.02 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.79960 GHz	-53.45 dBm	-13.45 dB

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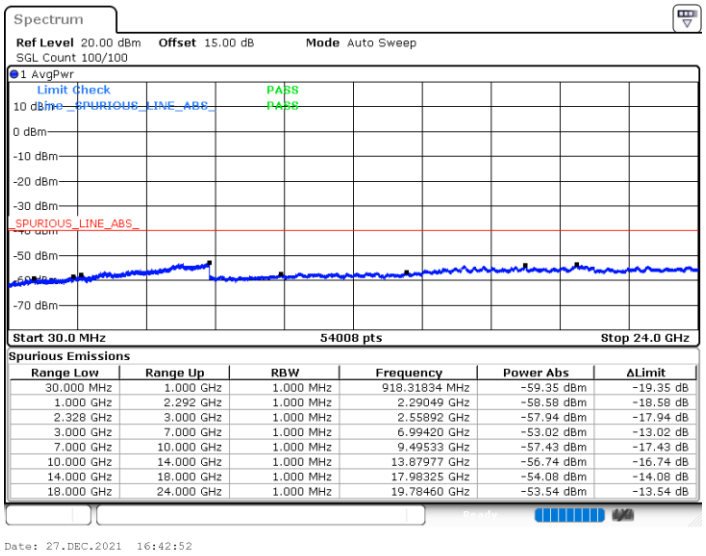
N/A

Blank

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	918.31834 MHz	-59.35 dBm	-19.35 dB
1.000 GHz	2.292 GHz	1.000 MHz	2.29049 GHz	-58.58 dBm	-18.58 dB
2.328 GHz	3.000 GHz	1.000 MHz	2.55892 GHz	-57.94 dBm	-17.94 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99420 GHz	-53.02 dBm	-13.02 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.49533 GHz	-57.43 dBm	-17.43 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.87977 GHz	-56.74 dBm	-16.74 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.98325 GHz	-54.08 dBm	-14.08 dB
18.000 GHz	24.000 GHz	1.000 MHz	19.78460 GHz	-53.54 dBm	-13.54 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	0.0003	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0001	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0000	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.45 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 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	SPA Reading (dBm)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	4611.00	-59.45	-40	-19.45	-63.74	-65.70	6.45	12.70	H
	6916.50	-58.84	-40	-18.84	-65.46	-62.24	8.40	11.80	H
	9222.00	-59.06	-40	-19.06	-68.09	-61.41	9.65	12.00	H
	11527.50	-54.40	-40	-14.40	-68.50	-55.48	11.12	12.20	H
	4611.00	-59.13	-40	-19.13	-63.55	-65.38	6.45	12.70	V
	6916.50	-57.67	-40	-17.67	-65.39	-61.07	8.40	11.80	V
	9222.00	-56.69	-40	-16.69	-67.95	-59.04	9.65	12.00	V
	11527.50	-51.66	-40	-11.66	-68.44	-52.74	11.12	12.20	V

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