FCC RF Test Report

APPLICANT	:	Lenovo(Shanghai) Electronics Technology Co., Ltd.
EQUIPMENT	:	Portable Tablet Computer
BRAND NAME	:	Lenovo
MODEL NAME	:	TB332ZJ
FCC ID	:	O57TB332ZJ
STANDARD	:	47 CFR Part 27(M)
CLASSIFICATION	:	Licensed Non-Broadcast Station Transmitter (TNB)
TEST DATE(S)	:	Mar. 01, 2025 ~ Mar. 21, 2025

We, Sporton International Inc. (Kunshan), 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.

This report contains data that were produced under subcontract by Sporton International Inc. (Shenzhen).

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (Kunshan), the test report shall not be reproduced except in full.

Jason Jia

Approved by: Jason Jia

ACCREDITED Cert #5145.02

Sporton International Inc. (Kunshan)
No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG512403A	Rev. 01	Initial issue of report	Apr. 08, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 41)	EIRP < 2Watt	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§27.53(m)(4)	Conducted Band Edge Measurement (Band 41)	§27.53(m)(4)	PASS	-
3.8	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 41)	< $55+10\log_{10}$(P[Watts])	PASS	-
3.9	§2.1055 §24.235 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 41)	< $55+10\log_{10}$(P[Watts])	PASS	Under limit 21.27 dB at 5168.00 MHz

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.

1 General Description

1.1 Applicant

Lenovo(Shanghai) Electronics Technology Co., Ltd.
Section 304-305, Building No. 4, # 222, Meiyue Road, China (Shanghai) Pilot Free Trade Zone

1.2 Manufacturer

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

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Portable Tablet Computer
Brand Name	Lenovo
Model Name	TB332ZJ
FCC ID	O57TB332ZJ
IMEI Code	Conducted: 869660070000790/869660070000808 Radiation: 869660070010112/869660070010120
HW Version	TB332ZJ
SW Version	Lenovo ZUI 17.0
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. There are three types of EUT, the differences could be referred to the TB332ZJ_Product Equality Declaration which is exhibit separately. According to the difference, we choose sample 1 to full test.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 41 : 2496 MHz ~ 2690 MHz
Rx Frequency	LTE Band 41 : 2496 MHz ~ 2690 MHz
Bandwidth	LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	<ANT4> LTE Band 41 : 26.10 dBm LTE CA_41C : 26.03 dBm <ANT7> LTE Band 41 : 23.19 dBm
Antenna Gain	<ANT4> LTE Band 41 : -2.9 dBi <ANT7> LTE Band 41 : -6.3 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

Note:

1. The maximum EIRP is calculated from max output power and max antenna gain, so only the

maximum EIRP of Antenna 4 for LTE Band41/41C are shown in the report.

2. The device supports two PAs for LTE Band 41 (main PA, and other PA for NSA mode only), both the PAs are full tested, only the worst EIRP are shown in the report.
3. LTE B41/41C supports HPUE mode (PC2).

1.5 Modification of EUT

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

1.6 Maximum EIRP Power and Emission Designator

LTE Band 41		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2498.5 ~ 2687.5	0.2065	4M50G7D	0.1644	4M48W7D
10	2501.0 ~ 2685.0	0.2080	9M07G7D	0.1618	9M03W7D
15	2503.5 ~ 2682.5	0.2070	13M4G7D	0.1652	13M5W7D
20	2506.0 ~ 2680.0	0.2089	17M9G7D	0.1667	17M9W7D

LTE Band 41 CA	QPSK		16QAM/64QAM	
BW (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5MHz+20MHz	0.1884	23M3G7D	0.1466	23M2W7D
10MHz+20MHz	0.1858	28M3G7D	0.1500	28M1W7D
10MHz+15MHz	0.1866	23M5G7D	0.1486	23M4W7D
15MHz+15MHz	0.1849	28M7G7D	0.1455	28M7W7D
15MHz+20MHz	0.1888	32M9G7D	0.1483	32M9W7D
15MHz+10MHz	0.1901	23M4G7D	0.1476	23M5W7D
20MHz+5MHz	0.1892	23M4G7D	0.1483	23M2W7D
20MHz+10MHz	0.1914	28M2G7D	0.1459	28M1W7D
20MHz+15MHz	0.1932	32M9G7D	0.1514	33M0W7D
20MHz+20MHz	0.2056	37M9G7D	0.1667	37M6W7D

Note: All modulations have been tested, and only the worst test results of PSK & QAM are shown in the report.

1.7 Testing Location

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-KS	CN1257	314309

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	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH02-SZ	CN1256	421272

Note: Test data subcontracted: RSE test case in section 4.4 of this report.

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	TH01-KS	SPORTON	FCC LTE_Ver2.0 Auto_china_210503	2.0
2.	03CH02-SZ	AUDIX	E3	6.2009-8-24a

1.9 Applicable Standards

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

- 47 CFR Part 27(M)
- ANSI C63.26-2015
- FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

Remark:

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

2 Test Configuration of Equipment Under Test

2.1 Test Mode

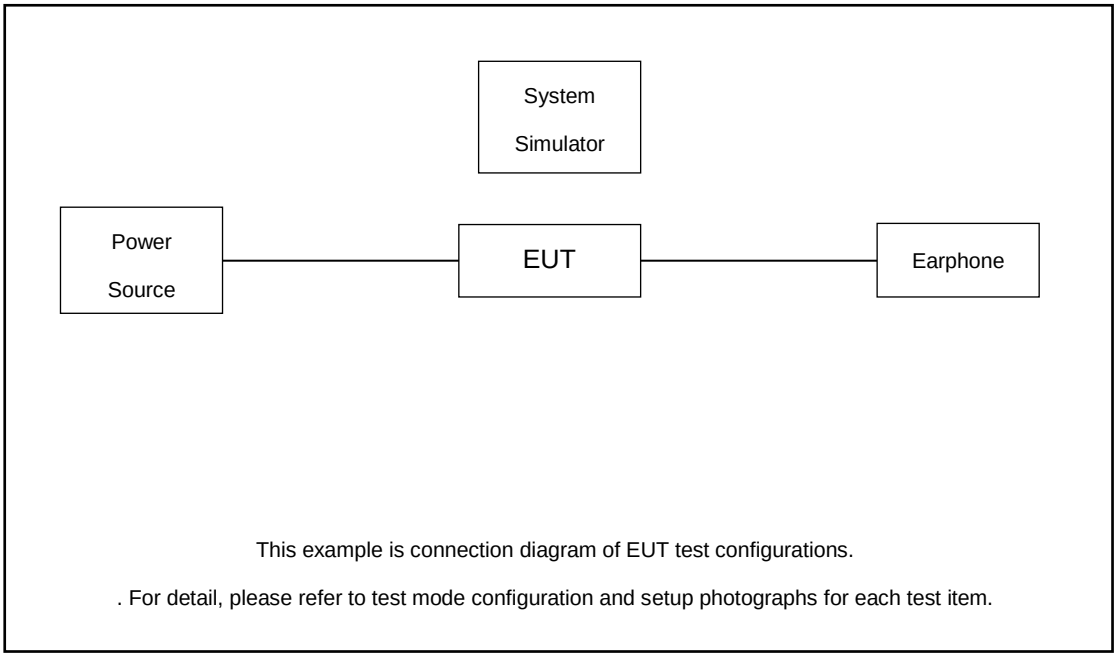
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

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

Test Items	Band	Bandwidth (MHz)						Modulation				RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64 QAM	256 QAM	1	Half	Full	L	M	H
Max. Output Power	41	-	-	v	v	v	v	v	v	v	-	v		v	v	v	v
Peak-to-Average Ratio	41	-	-				v	v	v	v	-			v		v	
26dB and 99% Bandwidth	41	-	-	v	v	v	v	v	v		-			v		v	
Conducted Band Edge	41	-	-	v	v	v	v	v	v	v	-	v		v	v		v
Conducted Spurious Emission	41	-	-	v	v	v	v	v			-	v			v	v	v
Frequency Stability	41	-	-		v			v			-			v		v	
E.I.R.P.	41	-	-	v	v	v	v	v	v	v	-	v		v	v	v	v
Radiated Spurious Emission	41	Worst Case														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.																

Test Items	Band	Bandwidth (MHz)										Modulation				RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64 QAM	256 QAM	1	Half	Full	L	M	H
Max. Output Power	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	-	v			v	v	v
26dB and 99% Bandwidth	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v		-			v		v	
Conducted Band Edge	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	-	v		v	v		v
Conducted Spurious Emission	41C_CA	v	v	v	v	v	v	v	v	v	v	v			-	v			v	v	v
E.I.R.P.	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	-	v			v	v	v
Frequency Stability	41C_CA	v										v						v		v	
Radiated Spurious Emission	41C_CA	Worst Case																		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



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m
3.	NR Base Station	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
4.	Earphone 1	N/A	N/A	N/A	3.5mm	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.

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 6.0 dB.

Example :

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

= 6.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

LTE Band 41 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	39750	40620	41490
	Frequency	2506	2593	2680
15	Channel	39725	40620	41515
	Frequency	2503.5	2593	2682.5
10	Channel	39700	40620	41540
	Frequency	2501	2593	2685
5	Channel	39675	40620	41565
	Frequency	2498.5	2593	2687.5

LTE Band 41C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	39750	40521	41292
		Frequency	2506.0	2583.1	2660.2
	SCC	Channel	39948	40719	41490
		Frequency	2525.8	2602.9	2680.0
20 + 15	PCC	Channel	39750	40546	41341
		Frequency	2506.0	2585.6	2665.1
	SCC	Channel	39921	40717	41512
		Frequency	2523.1	2602.7	2682.2
15 + 20	PCC	Channel	39728	40523	41319
		Frequency	2503.8	2593.3	2662.9
	SCC	Channel	39899	40694	41490
		Frequency	2520.9	2600.4	2680.0
20 + 10	PCC	Channel	39750	40571	41391
		Frequency	2506.0	2588.1	2670.1
	SCC	Channel	39894	40715	41535
		Frequency	2520.4	2602.5	2684.5
10 + 20	PCC	Channel	39705	40526	41346
		Frequency	2501.5	2583.6	2665.6
	SCC	Channel	39849	40670	41490
		Frequency	2515.9	2598.0	2680.0

LTE Band 41C_CA Channel and Frequency List					
20 + 5	PCC	Channel	39750	40595	41440
		Frequency	2506.0	2590.5	2675.0
	SCC	Channel	39867	40712	41557
		Frequency	2517.7	2602.2	2686.7
5 + 20	PCC	Channel	39683	40528	41373
		Frequency	2499.3	2583.8	2668.3
	SCC	Channel	39800	40645	41490
		Frequency	2511.0	2595.5	2680.0
15 + 15	PCC	Channel	39725	40545	41365
		Frequency	2503.5	2585.5	2667.5
	SCC	Channel	39875	40695	41515
		Frequency	2518.5	2600.5	2682.5
10 + 15	PCC	Channel	39703	40549	41395
		Frequency	2501.3	2585.9	2670.5
	SCC	Channel	39823	40669	41515
		Frequency	2513.3	2597.9	2682.5
15 + 10	PCC	Channel	39725	40571	41417
		Frequency	2503.5	2588.1	2672.7
	SCC	Channel	39845	40691	41537
		Frequency	2515.5	2600.1	2684.7

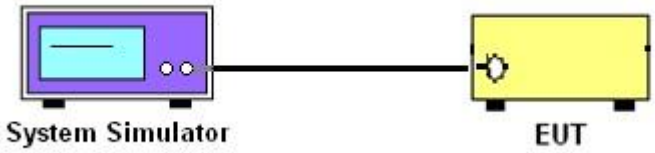
3 Conducted Test Items

3.1 Measuring Instruments

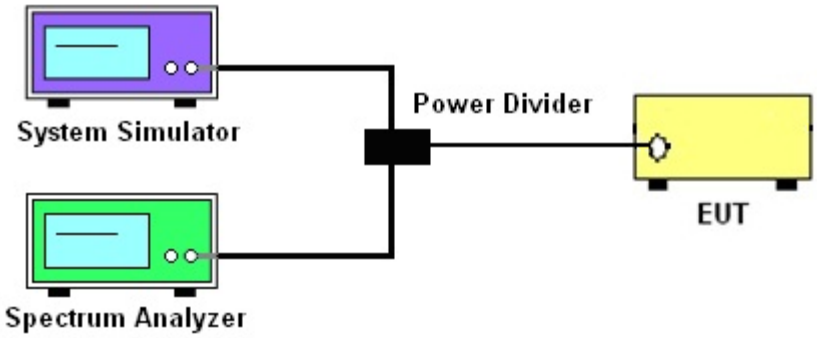
See list of measuring instruments of this test report.

3.2 Test Setup

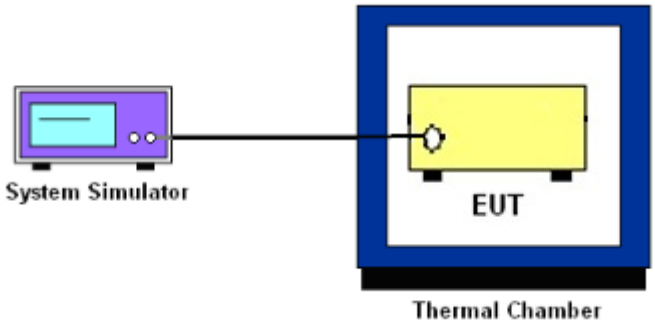
3.2.1 Conducted Output Power



3.2.2 Peak-to-Average Ratio, Occupied Bandwidth ,Conducted 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 and EIRP

3.4.1 Description of the Conducted Output Power Measurement and EIRP Measurement

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

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 41.

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

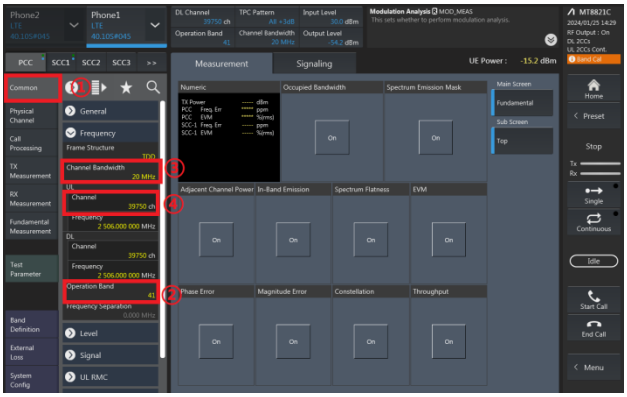
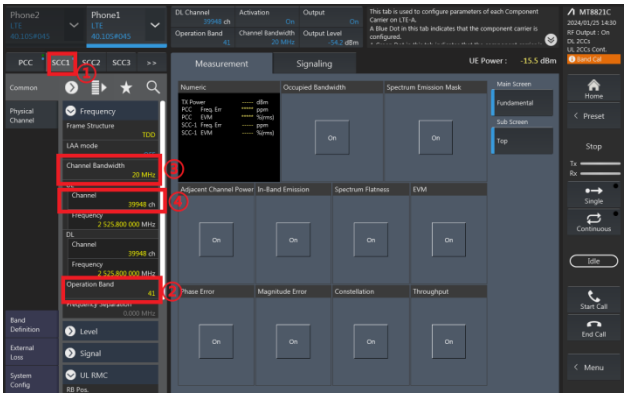
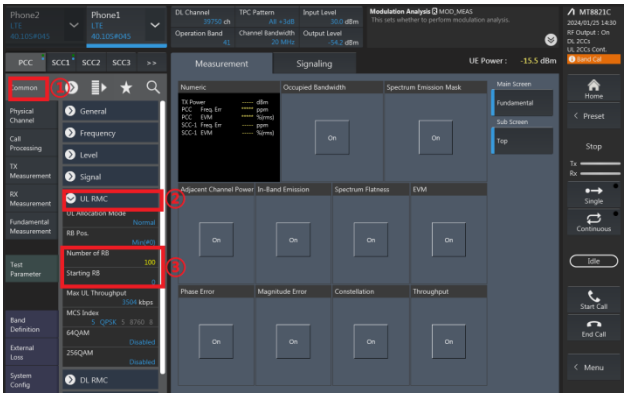
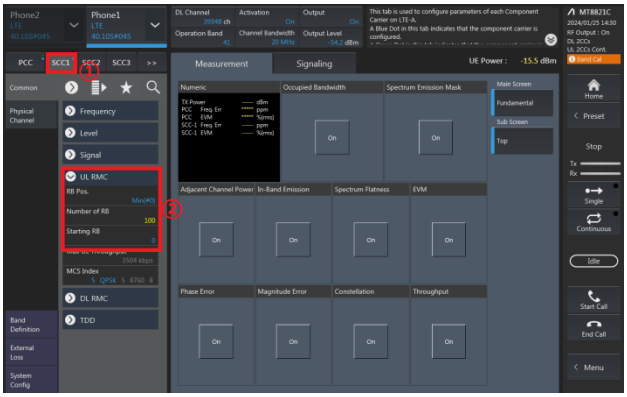
L_C = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.4.2 Test Procedures

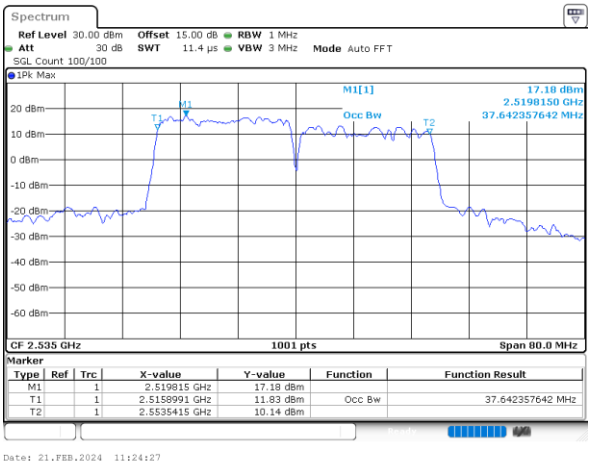
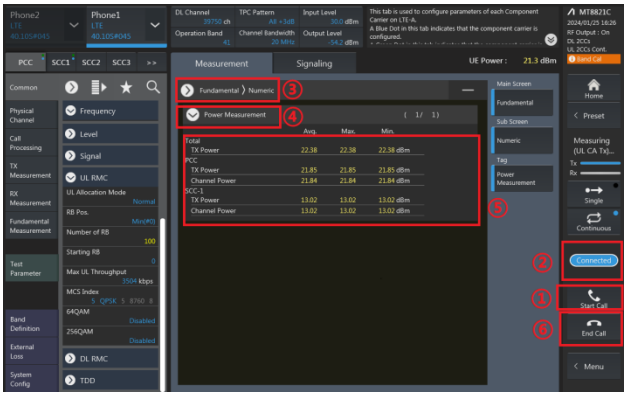
1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from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

3.4.3 Test Procedures for LTE ULCA

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter PCC & SCC output ports were connected to the system simulator.
3. Set EUT at maximum power, set the PCC/SCC CA band, channel, bandwidth and RB config.

PCC config_(Channel Bandwidth / Channel / Band)	SCC config_(Channel Bandwidth / Channel / Band)
	
PCC config_(Number of RB / Starting RB)	**SCC config_(Number of RB / Starting RB)**
	

4. Select lowest, middle, and highest channels for each ULCA band and different modulation.
5. Check the ULCA spectrum and record the total power from the system simulator.

Check the ULCA spectrum (eg. 20M+20M)	Read the Total UL CA output power (PCC+SCC)
	

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 Occupied Bandwidth

3.6.1 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.

3.6.2 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.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

27.53(m)(4)

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

3.7.2 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.
9. For LTE Band 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
10. When using the integration method, the starting frequency of the integration shall be centered at one-half of the RBW away from the band edge.

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

For Band 41:

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

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

3.8.2 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 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. For Band 41

    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)

    = P(W)- [55+ 10log(P)] (dB)

    = [30+ 10log(P)] (dBm) - [55+ 10log(P)] (dB)

    = -25dBm.

3.9 Frequency Stability

3.9.1 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.

3.9.2 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.

3.9.3 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.

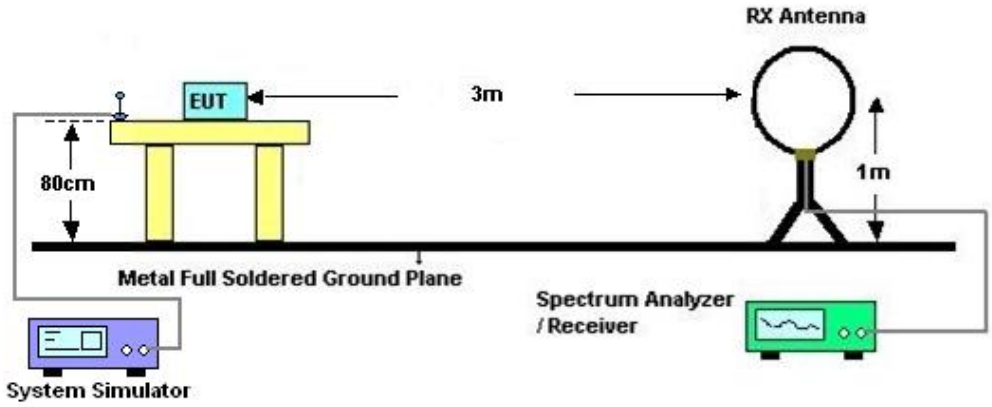
4 Radiated Test Items

4.1 Measuring Instruments

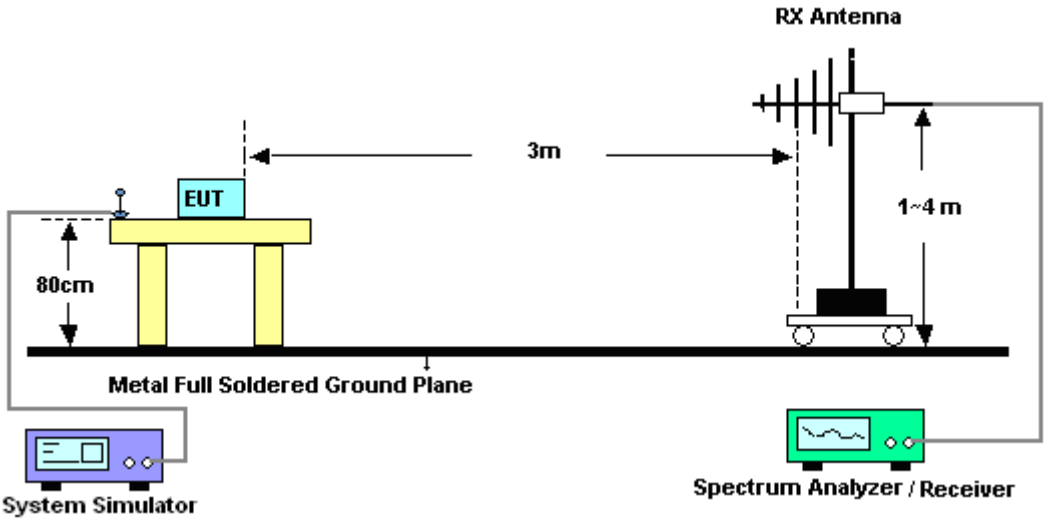
See list of measuring instruments of this test report.

4.2 Test Setup

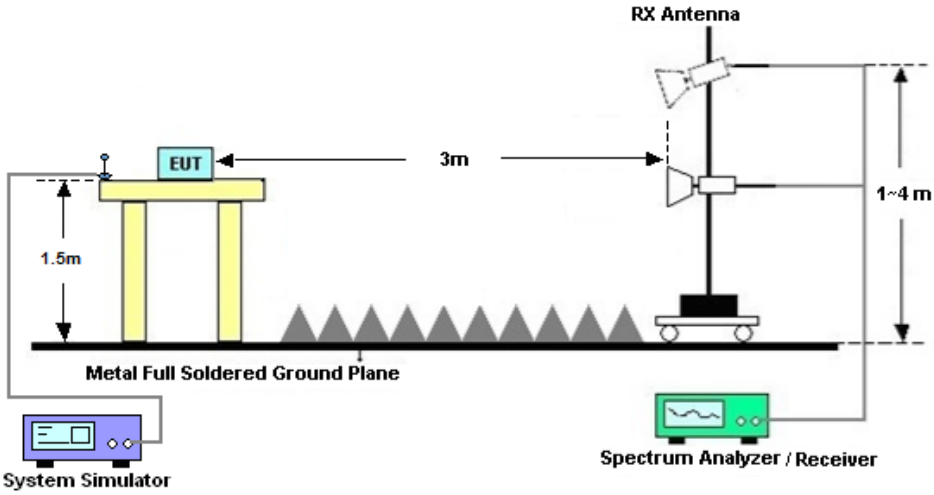
4.2.1 For radiated test below 30MHz



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

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26.

For Band 41

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

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.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)
    = -25dBm.

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	Oct. 10, 2024	Mar. 01, 2025~ Mar. 12, 2025	Oct. 09, 2025	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Mar. 01, 2025~ Mar. 12, 2025	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Mar. 01, 2025~ Mar. 12, 2025	Jul. 03, 2025	Conducted (TH01-KS)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Jul. 03, 2024	Mar. 21, 2025	Jul. 02, 2025	Radiation (03CH02-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 28, 2024	Mar. 21, 2025	Dec. 27, 2025	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Oct. 24, 2023	Mar. 21, 2025	Oct. 23, 2025	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Jul. 04, 2024	Mar. 21, 2025	Jul. 04, 2025	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 03, 2024	Mar. 21, 2025	Jul. 03, 2025	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Apr. 09, 2024	Mar. 21, 2025	Apr. 08, 2025	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2024	Mar. 21, 2025	Oct. 17, 2025	Radiation (03CH02-SZ)
HF Amplifier	KEYSIGHT	83017A	MY53270105	0.5GHz~26.5Ghz	Oct. 14, 2024	Mar. 21, 2025	Oct. 13, 2025	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010003043	N/A	Oct. 18, 2024	Mar. 21, 2025	Oct. 17, 2025	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Mar. 21, 2025	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Mar. 21, 2025	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required

6 Measurement Uncertainty

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 Conducted Measurement

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	±2.22 dB
Occupied Channel Bandwidth	±0.1%
Conducted Power	±0.50 dB
Peak to Average Ratio	±0.90 dB
Frequency Stability	±0.04ppm

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.47 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.31 dB

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.72 dB

---------- THE END ----------

Appendix A. Test Results of Conducted Test

Test Engineer :	Smile Wang	Temperature :	22~23℃
		Relative Humidity :	40~42%

Conducted Output Power(Average power) and EIRP

LTE Band41_ANT4:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP(W)		
Channel				39750	40620	41490			
Frequency (MHz)				2506	2593	2680	L	M	H
20	QPSK	1	0	25.80	26.10	25.94	0.1950	0.2089	0.2014
20	QPSK	1	99	25.87	25.94	25.73	0.1982	0.2014	0.1919
20	QPSK	100	0	24.89	25.00	24.95	0.1581	0.1622	0.1603
20	16QAM	1	0	25.12	25.02	25.00	0.1667	0.1629	0.1622
20	64QAM	1	0	23.87	23.89	23.90	0.1250	0.1256	0.1259
Channel				39725	40620	41515	EIRP(W)		
Frequency (MHz)				2503.5	2593	2682.5	L	M	H
15	QPSK	1	0	26.06	26.05	25.94	0.2070	0.2065	0.2014
15	16QAM	1	0	25.06	25.08	24.93	0.1644	0.1652	0.1596
Channel				39700	40620	41540	EIRP(W)		
Frequency (MHz)				2501	2593	2685	L	M	H
10	QPSK	1	0	26.08	26.03	26.05	0.2080	0.2056	0.2065
10	16QAM	1	0	24.99	24.97	24.98	0.1618	0.1611	0.1614
Channel				39675	40620	41565	EIRP(W)		
Frequency (MHz)				2498.5	2593	2687.5	L	M	H
5	QPSK	1	0	25.91	26.05	25.94	0.2000	0.2065	0.2014
5	16QAM	1	0	24.95	24.91	25.06	0.1603	0.1589	0.1644

LTE CA_41C _ANT4:

Combination 20MHz+20MHz (100RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
L	QPSK	1	Max	1	0	25.77	0.1936
M	QPSK	1	Max	1	0	26.03	0.2056
H	QPSK	1	Max	1	0	25.88	0.1986
L	16QAM	1	Max	1	0	24.74	0.1528
M	16QAM	1	Max	1	0	25.12	0.1667
H	16QAM	1	Max	1	0	24.93	0.1596
L	64QAM	1	Max	1	0	23.73	0.1211
M	64QAM	1	Max	1	0	24.08	0.1312
H	64QAM	1	Max	1	0	23.80	0.1230
Combination 20MHz+15MHz (100RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.76	0.1932
M	16QAM	1	Max	1	0	24.70	0.1514
Combination 15MHz+20MHz (75RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.66	0.1888
M	16QAM	1	Max	1	0	24.61	0.1483
Combination 15MHz+15MHz (75RB+75RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.57	0.1849
M	16QAM	1	Max	1	0	24.53	0.1455
Combination 20MHz+10MHz (100RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.72	0.1914
M	16QAM	1	Max	1	0	24.54	0.1459
Combination 10MHz+20MHz (50RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.59	0.1858
M	16QAM	1	Max	1	0	24.66	0.1500
Combination 15MHz+10MHz (75RB+50RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.69	0.1901
M	16QAM	1	Max	1	0	24.59	0.1476
Combination 10MHz+15MHz (50RB+75RB)							
Channel	Modulation	PCC		SCC		Measured	EIRP(W)

		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.61	0.1866
M	16QAM	1	Max	1	0	24.62	0.1486
Combination 20MHz+5MHz (100RB+25RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.67	0.1892
M	16QAM	1	Max	1	0	24.61	0.1483
Combination 5MHz+20MHz (25RB+100RB)							
Channel	Modulation	PCC		SCC		Measured Power	EIRP(W)
		RB Size	RB offset	RB Size	RB offset		
M	QPSK	1	Max	1	0	25.65	0.1884
M	16QAM	1	Max	1	0	24.56	0.1466

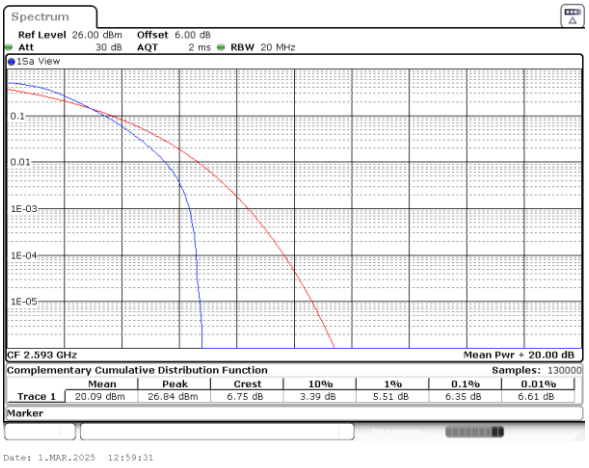
LTE Band 41

Peak-to-Average Ratio

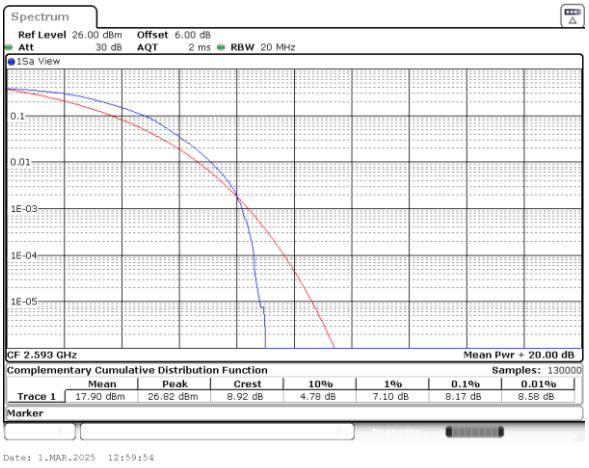
Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	6.35	8.17	6.49	PASS

LTE Band 41 / 20MHz

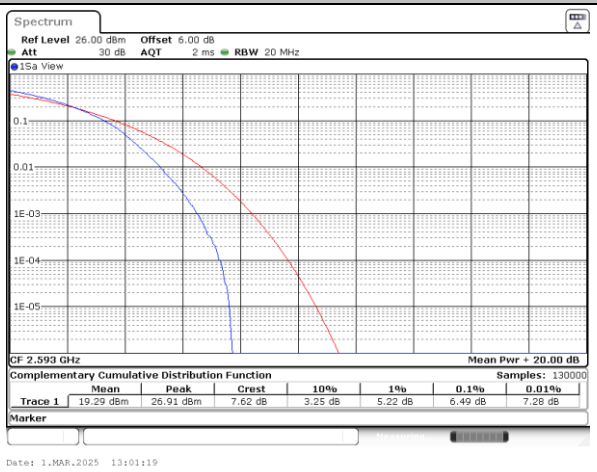
Middle Channel / Full RB / QPSK



Middle Channel / Full RB / 16QAM



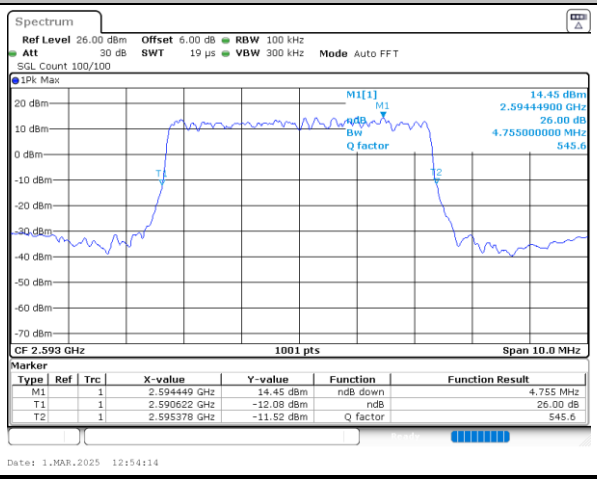
Middle Channel / Full RB / 64QAM

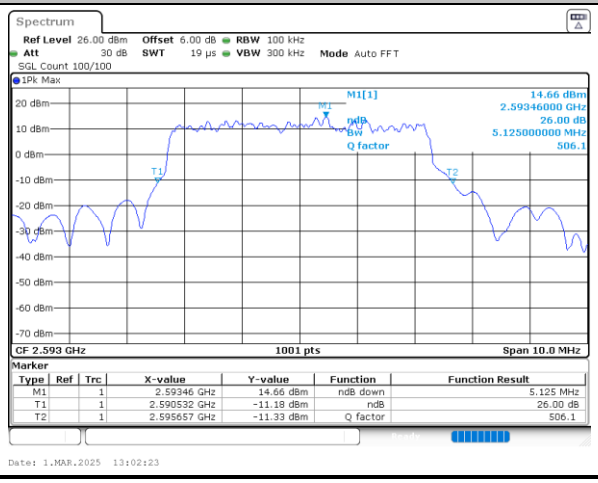


26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.78	5.13
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.71	9.81
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.12	14.18
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.86	18.78

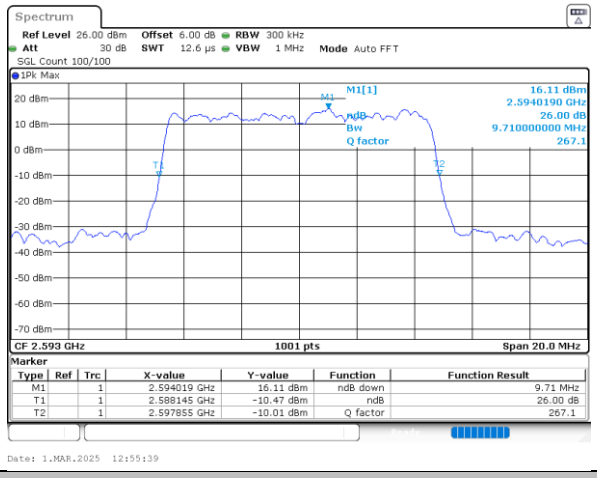
LTE Band 41	
Middle Channel / 5MHz / QPSK	Middle Channel / 5MHz / 16QAM



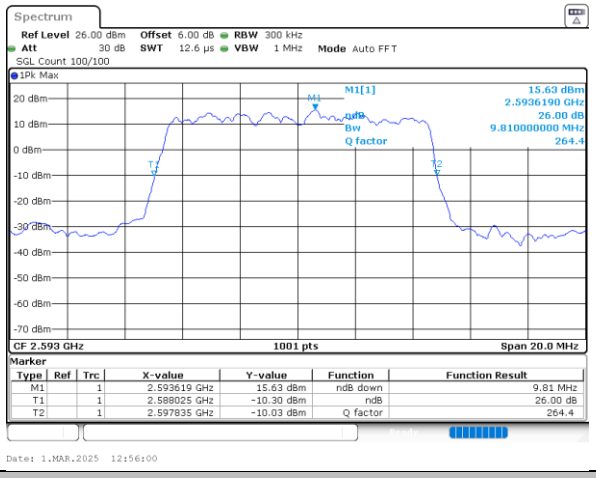


LTE Band 41

Middle Channel / 10MHz / QPSK

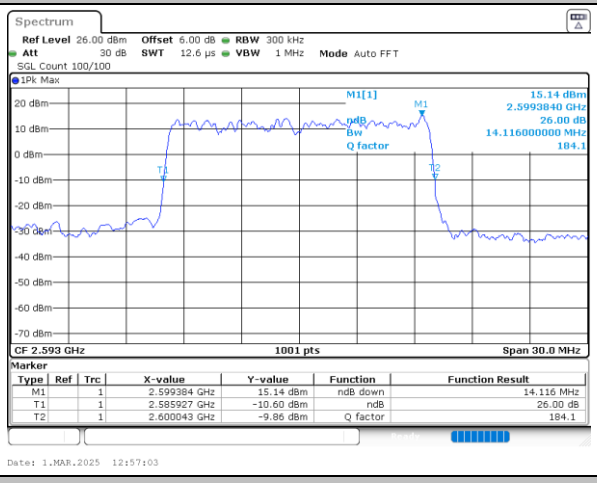


Middle Channel / 10MHz / 16QAM

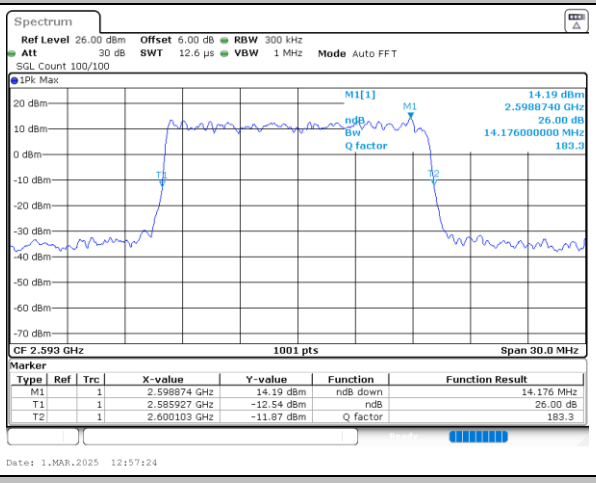


LTE Band 41

Middle Channel / 15MHz / QPSK

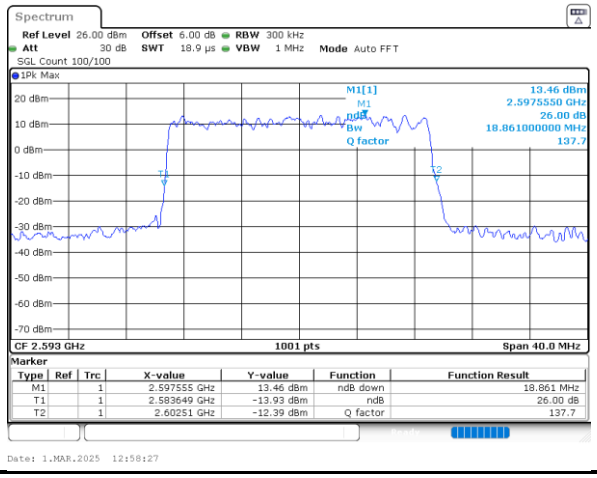


Middle Channel / 15MHz / 16QAM

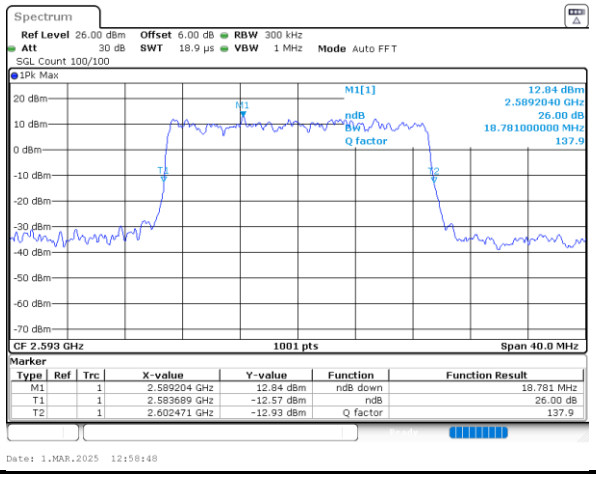


LTE Band 41

Middle Channel / 20MHz / QPSK



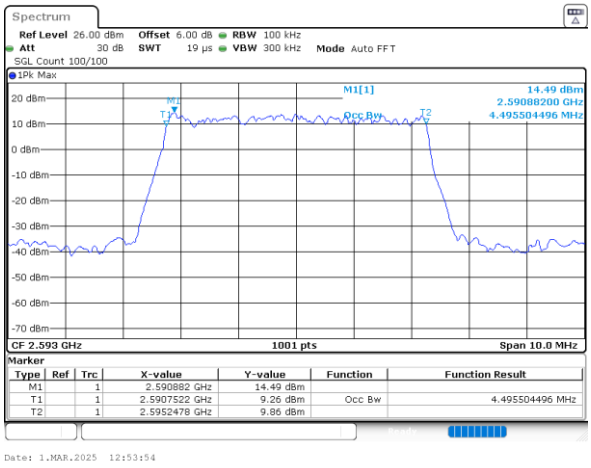
Middle Channel / 20MHz / 16QAM

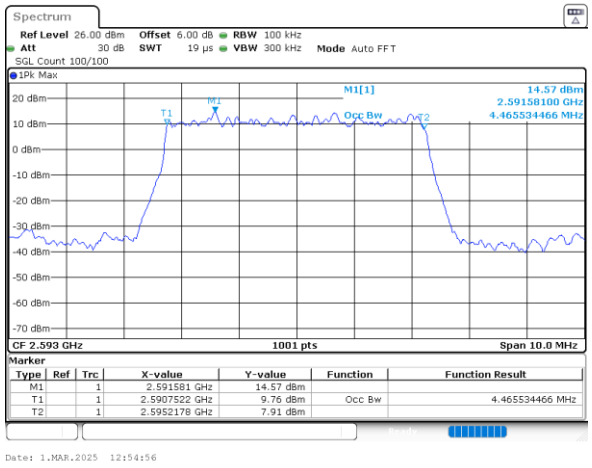


Occupied Bandwidth

Mode	LTE Band 41 : 99%OBW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.50	4.47
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.07	9.01
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	13.43	13.43
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	17.90	17.86

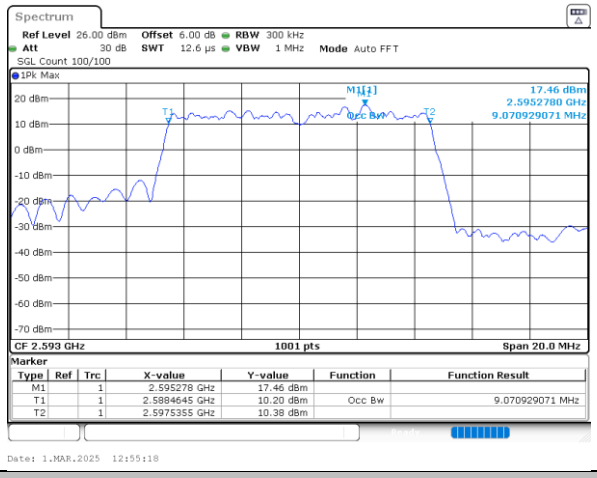
LTE Band 41	
Middle Channel / 5MHz / QPSK	Middle Channel / 5MHz / 16QAM



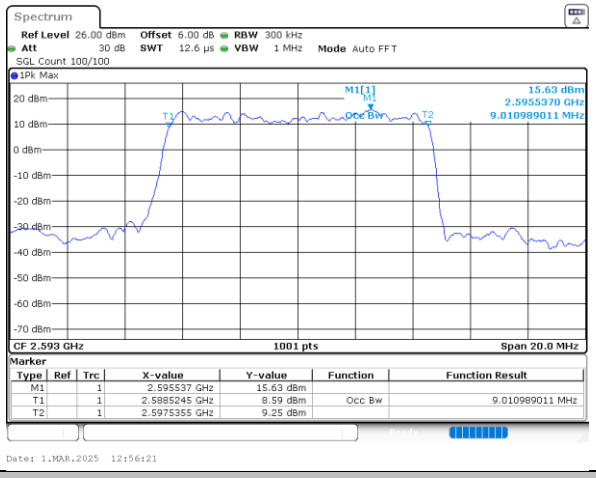


LTE Band 41

Middle Channel / 10MHz / QPSK

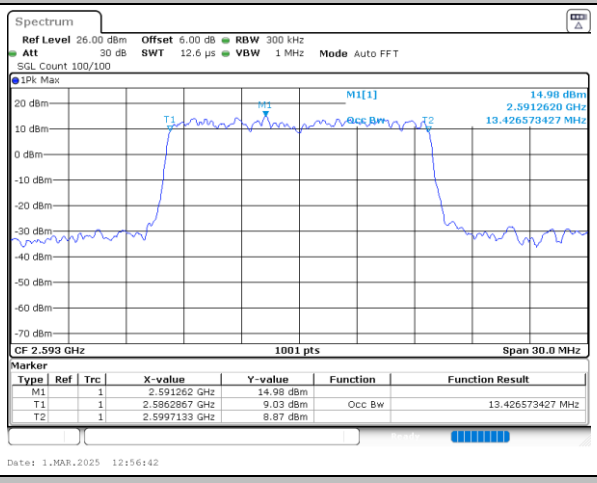


Middle Channel / 10MHz / 16QAM

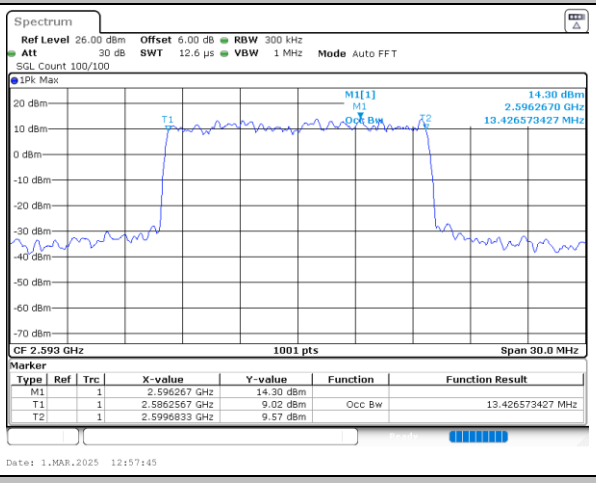


LTE Band 41

Middle Channel / 15MHz / QPSK

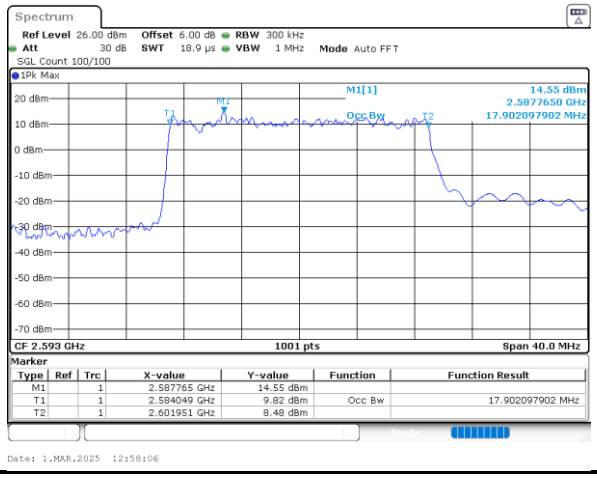


Middle Channel / 15MHz / 16QAM

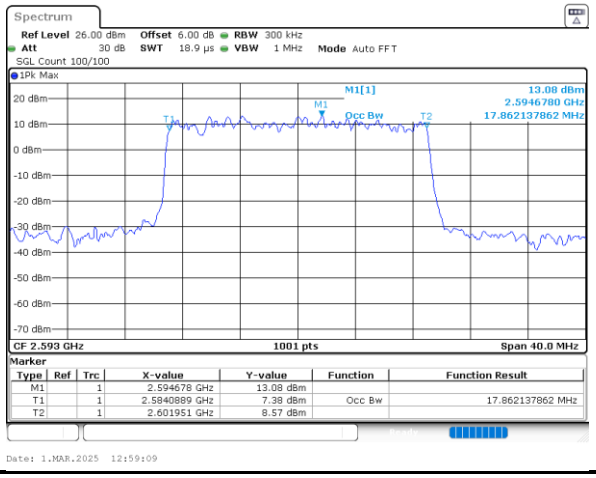


LTE Band 41

Middle Channel / 20MHz / QPSK



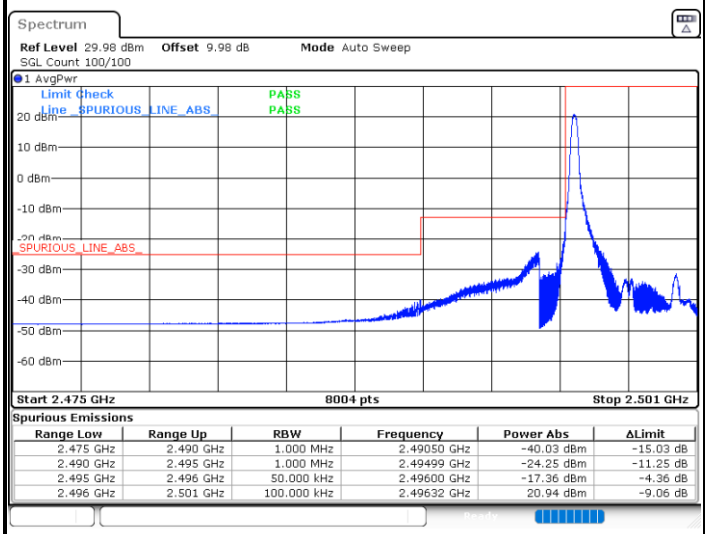
Middle Channel / 20MHz / 16QAM



Conducted Band Edge

LTE Band 41 / 5MHz / QPSK

Lowest Band Edge / 1 RB

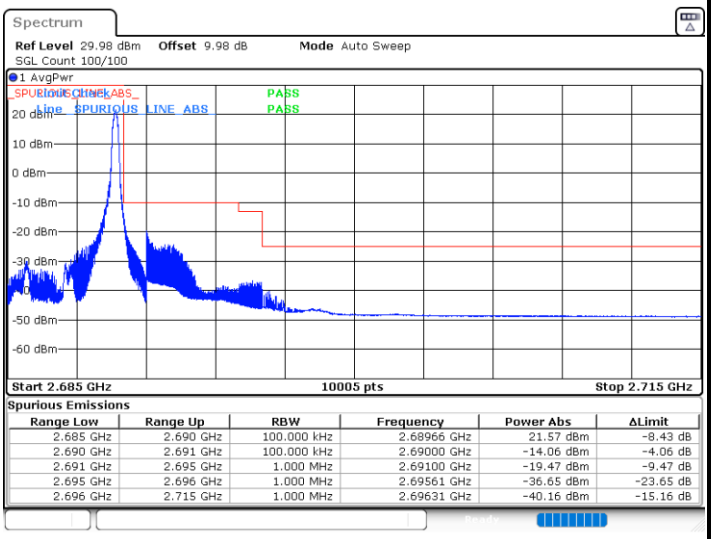


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49050 GHz	-40.03 dBm	-15.03 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49499 GHz	-24.25 dBm	-11.25 dB
2.495 GHz	2.496 GHz	50.000 kHz	2.49600 GHz	-17.36 dBm	-4.36 dB
2.496 GHz	2.501 GHz	100.000 kHz	2.49632 GHz	20.94 dBm	-9.06 dB

Date: 1.MAR.2025 09:50:55

Highest Band Edge / 1 RB

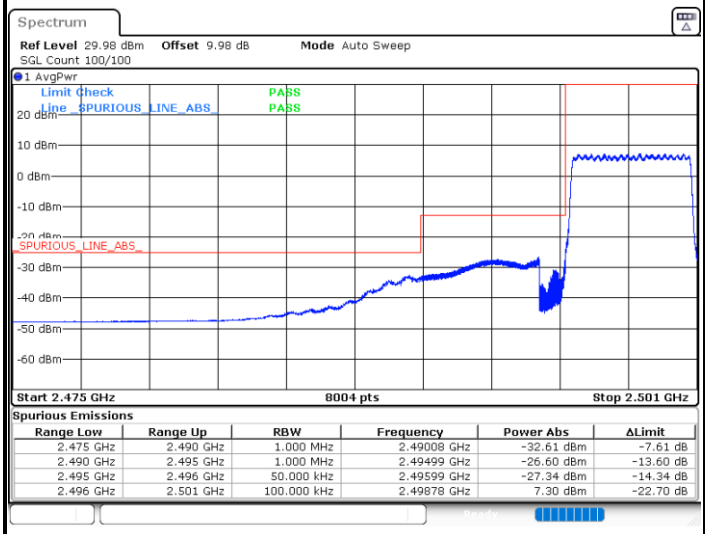


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.685 GHz	2.690 GHz	100.000 kHz	2.68966 GHz	21.57 dBm	-8.43 dB
2.690 GHz	2.691 GHz	100.000 kHz	2.69000 GHz	-14.06 dBm	-4.06 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69100 GHz	-19.47 dBm	-9.47 dB
2.695 GHz	2.696 GHz	1.000 MHz	2.69561 GHz	-36.65 dBm	-23.65 dB
2.696 GHz	2.715 GHz	1.000 MHz	2.69631 GHz	-40.16 dBm	-15.16 dB

Date: 1.MAR.2025 10:04:06

Lowest Band Edge / Full RB

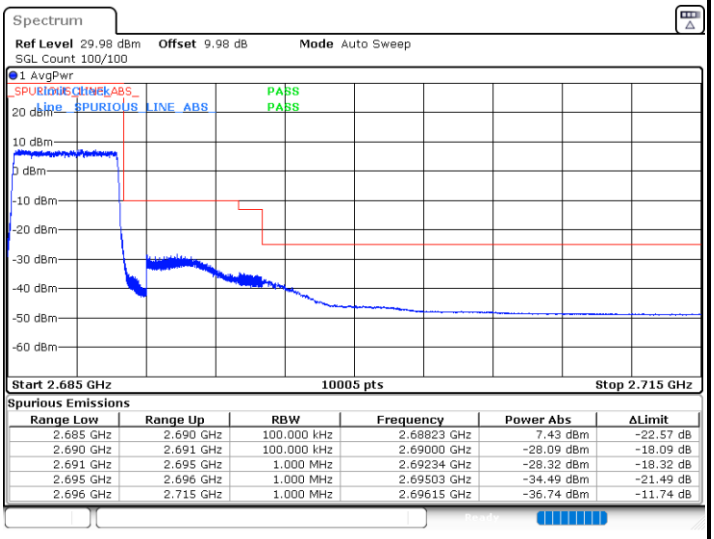


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49008 GHz	-32.61 dBm	-7.61 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49499 GHz	-26.60 dBm	-13.60 dB
2.495 GHz	2.496 GHz	50.000 kHz	2.49599 GHz	-27.34 dBm	-14.34 dB
2.496 GHz	2.501 GHz	100.000 kHz	2.49878 GHz	7.30 dBm	-22.70 dB

Date: 1.MAR.2025 09:59:41

Highest Band Edge / Full RB



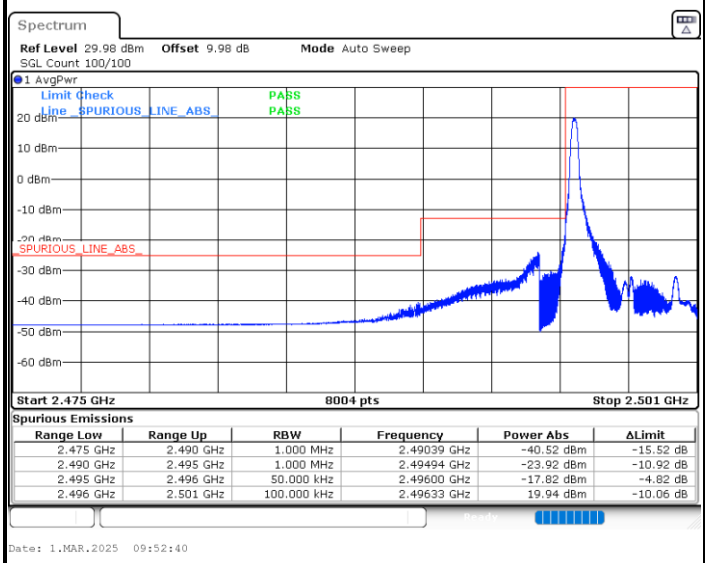
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.685 GHz	2.690 GHz	100.000 kHz	2.68823 GHz	7.43 dBm	-22.57 dB
2.690 GHz	2.691 GHz	100.000 kHz	2.69000 GHz	-28.09 dBm	-18.09 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69234 GHz	-28.32 dBm	-18.32 dB
2.695 GHz	2.696 GHz	1.000 MHz	2.69503 GHz	-34.49 dBm	-21.49 dB
2.696 GHz	2.715 GHz	1.000 MHz	2.69615 GHz	-36.74 dBm	-11.74 dB

Date: 1.MAR.2025 10:12:52

LTE Band 41 / 5MHz / 16QAM

Lowest Band Edge / 1RB

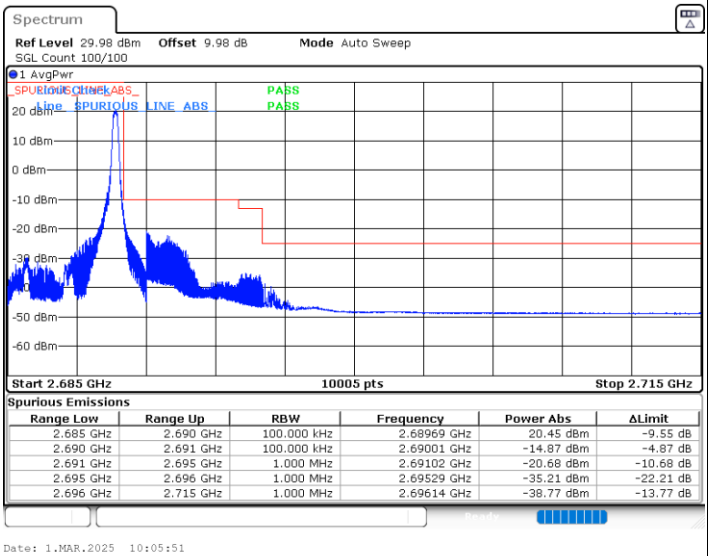


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49039 GHz	-40.52 dBm	-15.52 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49494 GHz	-23.92 dBm	-10.92 dB
2.495 GHz	2.496 GHz	50.000 kHz	2.49600 GHz	-17.82 dBm	-4.82 dB
2.496 GHz	2.501 GHz	100.000 kHz	2.49633 GHz	19.94 dBm	-10.06 dB

Date: 1.MAR.2025 09:52:40

Highest Band Edge / 1 RB

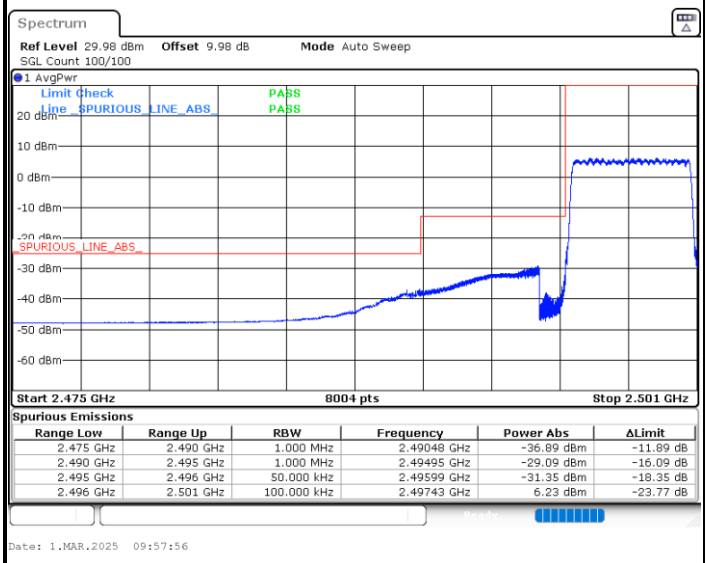


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.685 GHz	2.690 GHz	100.000 kHz	2.68969 GHz	20.45 dBm	-9.55 dB
2.690 GHz	2.691 GHz	100.000 kHz	2.69001 GHz	-14.87 dBm	-4.87 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69102 GHz	-20.68 dBm	-10.68 dB
2.695 GHz	2.696 GHz	1.000 MHz	2.69529 GHz	-35.21 dBm	-22.21 dB
2.696 GHz	2.715 GHz	1.000 MHz	2.69614 GHz	-38.77 dBm	-13.77 dB

Date: 1.MAR.2025 10:05:51

Lowest Band Edge / Full RB

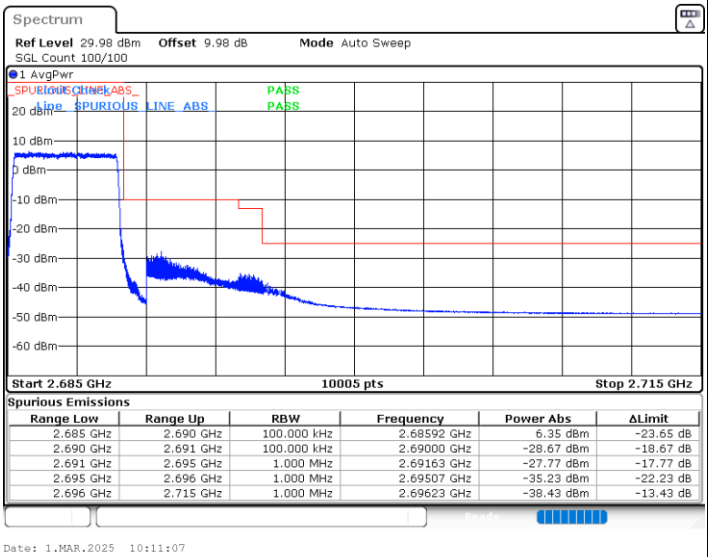


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49048 GHz	-36.89 dBm	-11.89 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49495 GHz	-29.09 dBm	-16.09 dB
2.495 GHz	2.496 GHz	50.000 kHz	2.49599 GHz	-31.35 dBm	-18.35 dB
2.496 GHz	2.501 GHz	100.000 kHz	2.49743 GHz	6.23 dBm	-23.77 dB

Date: 1.MAR.2025 09:57:56

Highest Band Edge / Full RB



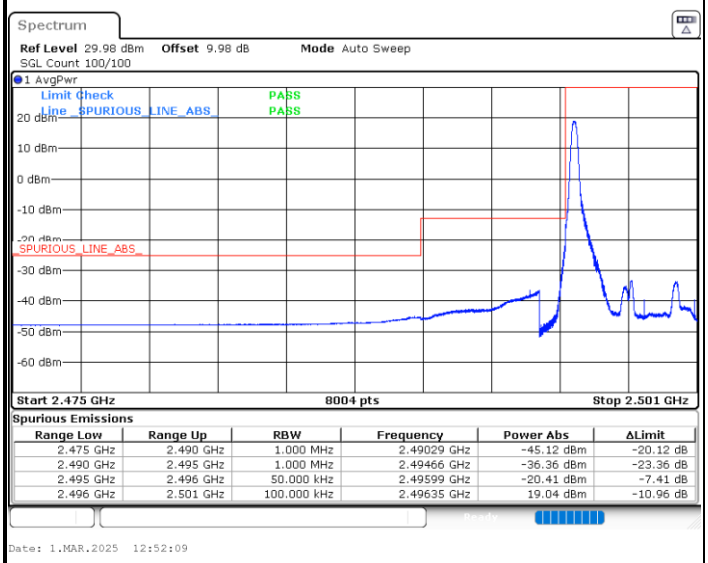
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.685 GHz	2.690 GHz	100.000 kHz	2.68592 GHz	6.35 dBm	-23.65 dB
2.690 GHz	2.691 GHz	100.000 kHz	2.69000 GHz	-28.67 dBm	-18.67 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69163 GHz	-27.77 dBm	-17.77 dB
2.695 GHz	2.696 GHz	1.000 MHz	2.69507 GHz	-35.23 dBm	-22.23 dB
2.696 GHz	2.715 GHz	1.000 MHz	2.69623 GHz	-38.43 dBm	-13.43 dB

Date: 1.MAR.2025 10:11:07

LTE Band 41 / 5MHz / 64QAM

Lowest Band Edge / 1RB

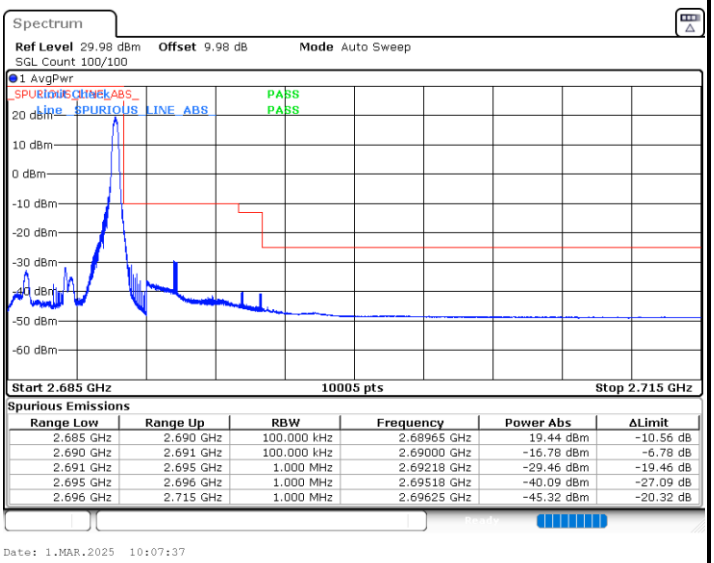


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49029 GHz	-45.12 dBm	-20.12 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49466 GHz	-36.36 dBm	-23.36 dB
2.495 GHz	2.496 GHz	50.000 kHz	2.49599 GHz	-20.41 dBm	-7.41 dB
2.496 GHz	2.501 GHz	100.000 kHz	2.49635 GHz	19.04 dBm	-10.96 dB

Date: 1.MAR.2025 12:52:09

Highest Band Edge / 1 RB

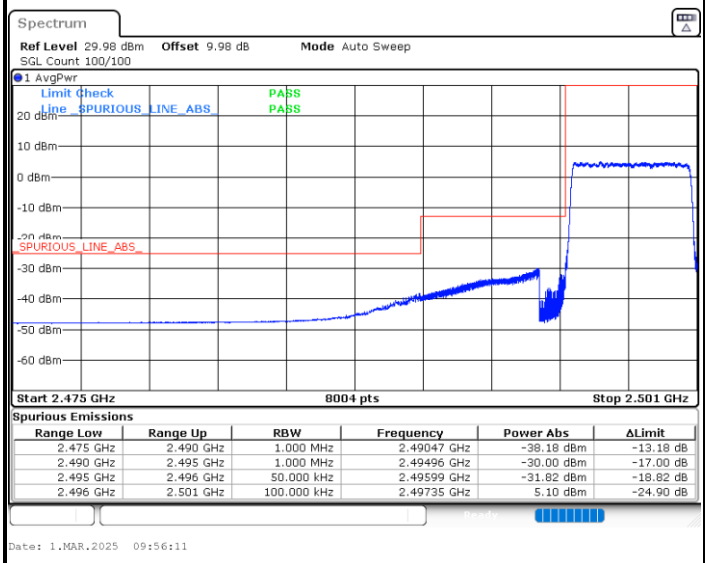


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.685 GHz	2.690 GHz	100.000 kHz	2.68965 GHz	19.44 dBm	-10.56 dB
2.690 GHz	2.691 GHz	100.000 kHz	2.69000 GHz	-16.78 dBm	-6.78 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69218 GHz	-29.46 dBm	-19.46 dB
2.695 GHz	2.696 GHz	1.000 MHz	2.69518 GHz	-40.09 dBm	-27.09 dB
2.696 GHz	2.715 GHz	1.000 MHz	2.69625 GHz	-45.32 dBm	-20.32 dB

Date: 1.MAR.2025 10:07:37

Lowest Band Edge / Full RB

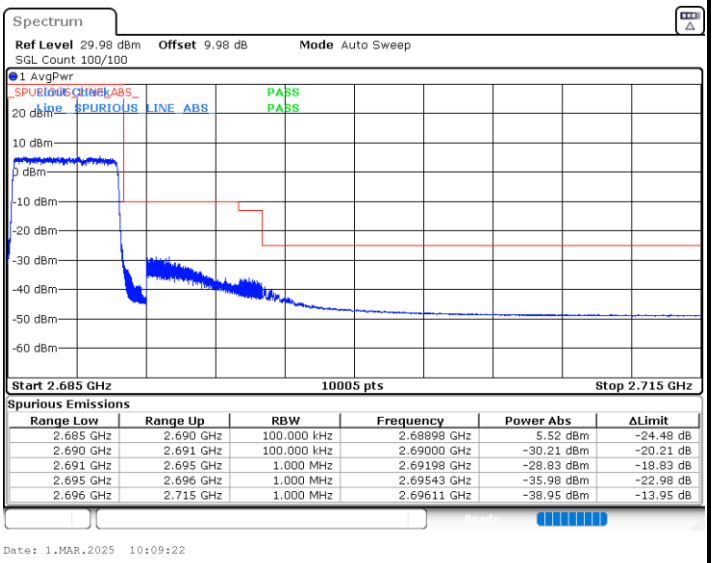


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49047 GHz	-38.18 dBm	-13.18 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49496 GHz	-30.00 dBm	-17.00 dB
2.495 GHz	2.496 GHz	50.000 kHz	2.49599 GHz	-31.82 dBm	-18.82 dB
2.496 GHz	2.501 GHz	100.000 kHz	2.49735 GHz	5.10 dBm	-24.90 dB

Date: 1.MAR.2025 09:56:11

Highest Band Edge / Full RB



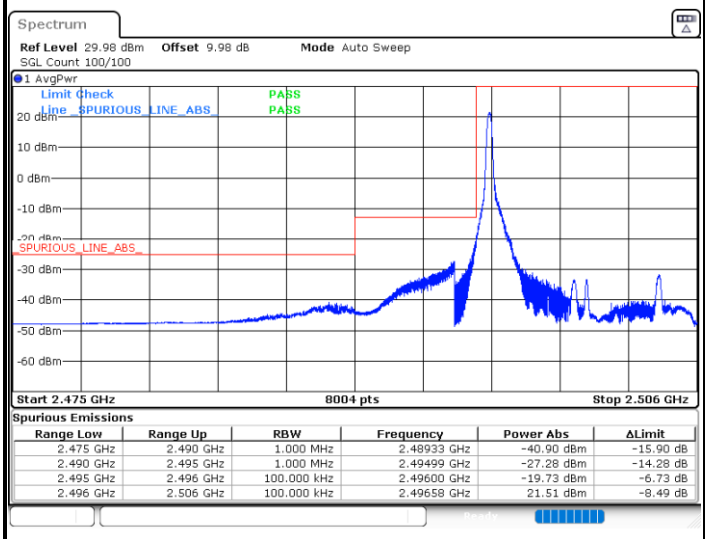
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.685 GHz	2.690 GHz	100.000 kHz	2.68898 GHz	5.52 dBm	-24.48 dB
2.690 GHz	2.691 GHz	100.000 kHz	2.69000 GHz	-30.21 dBm	-20.21 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69198 GHz	-28.83 dBm	-18.83 dB
2.695 GHz	2.696 GHz	1.000 MHz	2.69543 GHz	-35.98 dBm	-22.98 dB
2.696 GHz	2.715 GHz	1.000 MHz	2.69611 GHz	-38.95 dBm	-13.95 dB

Date: 1.MAR.2025 10:09:22

LTE Band 41 / 10MHz / QPSK

Lowest Band Edge / 1 RB

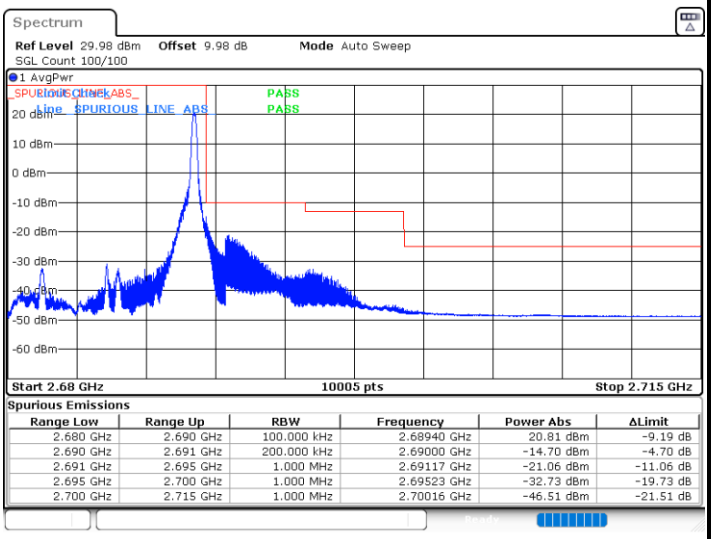


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48933 GHz	-40.90 dBm	-15.90 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49499 GHz	-27.28 dBm	-14.28 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49600 GHz	-19.73 dBm	-6.73 dB
2.496 GHz	2.506 GHz	100.000 kHz	2.49658 GHz	21.51 dBm	-8.49 dB

Date: 1.MAR.2025 10:15:58

Highest Band Edge / 1 RB

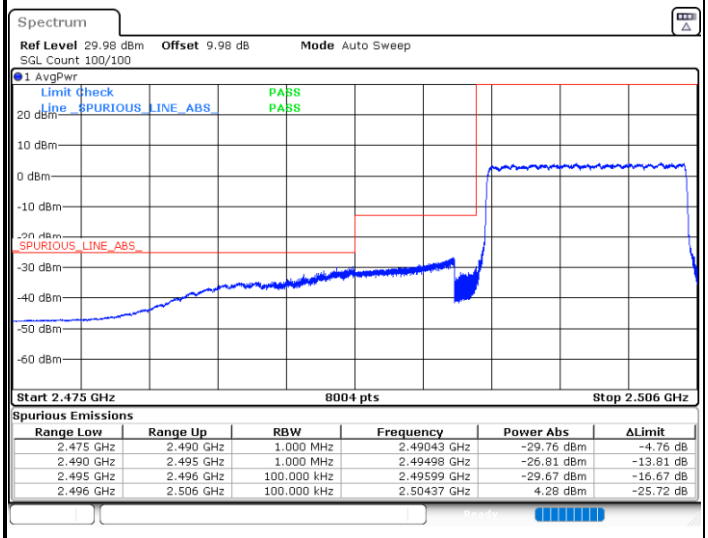


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.680 GHz	2.690 GHz	100.000 kHz	2.68940 GHz	20.81 dBm	-9.19 dB
2.690 GHz	2.691 GHz	200.000 kHz	2.69000 GHz	-14.70 dBm	-4.70 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69117 GHz	-21.06 dBm	-11.06 dB
2.695 GHz	2.700 GHz	1.000 MHz	2.69523 GHz	-32.73 dBm	-19.73 dB
2.700 GHz	2.715 GHz	1.000 MHz	2.70016 GHz	-46.51 dBm	-21.51 dB

Date: 1.MAR.2025 10:29:10

Lowest Band Edge / Full RB

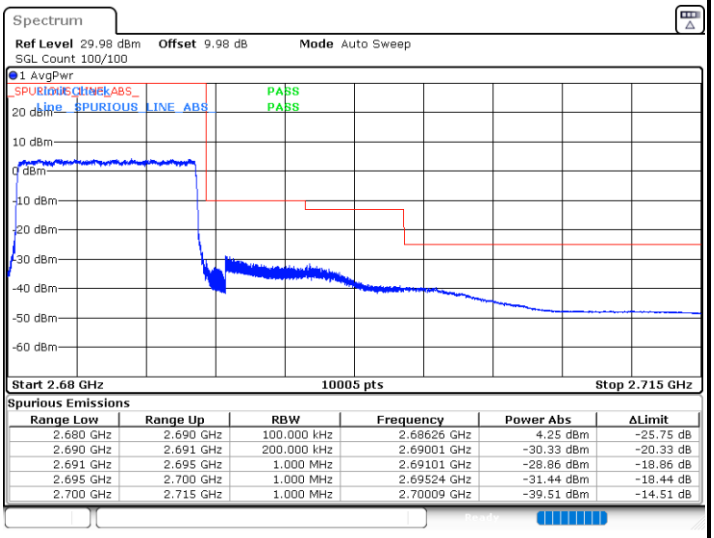


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49043 GHz	-29.76 dBm	-4.76 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49498 GHz	-26.81 dBm	-13.81 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49599 GHz	-29.67 dBm	-16.67 dB
2.496 GHz	2.506 GHz	100.000 kHz	2.50437 GHz	4.28 dBm	-25.72 dB

Date: 1.MAR.2025 10:24:45

Highest Band Edge / Full RB



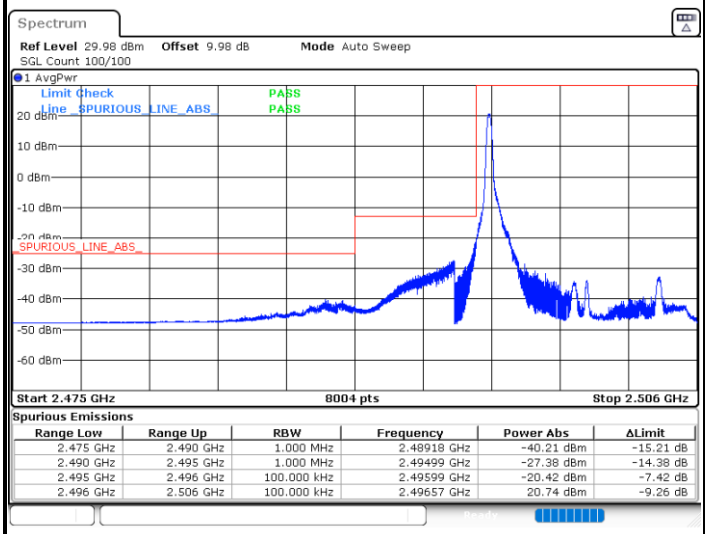
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.680 GHz	2.690 GHz	100.000 kHz	2.68626 GHz	4.25 dBm	-25.75 dB
2.690 GHz	2.691 GHz	200.000 kHz	2.69001 GHz	-30.33 dBm	-20.33 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69101 GHz	-28.86 dBm	-18.86 dB
2.695 GHz	2.700 GHz	1.000 MHz	2.69524 GHz	-31.44 dBm	-18.44 dB
2.700 GHz	2.715 GHz	1.000 MHz	2.70009 GHz	-39.51 dBm	-14.51 dB

Date: 1.MAR.2025 10:37:56

LTE Band 41 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

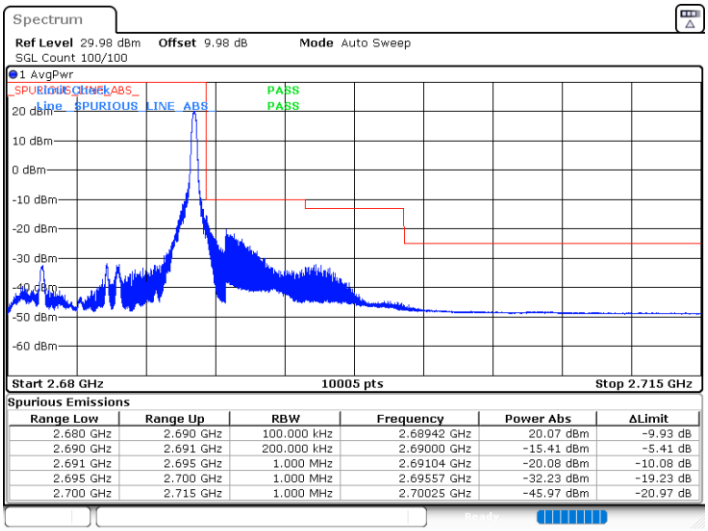


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48918 GHz	-40.21 dBm	-15.21 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49499 GHz	-27.38 dBm	-14.38 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49599 GHz	-20.42 dBm	-7.42 dB
2.496 GHz	2.506 GHz	100.000 kHz	2.49657 GHz	20.74 dBm	-9.26 dB

Date: 1.MAR.2025 10:17:43

Highest Band Edge / 1 RB

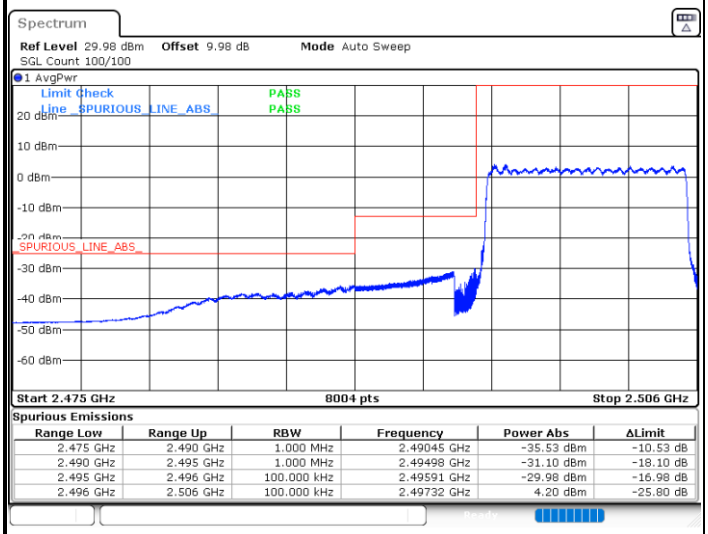


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.680 GHz	2.690 GHz	100.000 kHz	2.68942 GHz	20.07 dBm	-9.93 dB
2.690 GHz	2.691 GHz	200.000 kHz	2.69000 GHz	-15.41 dBm	-5.41 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69104 GHz	-20.08 dBm	-10.08 dB
2.695 GHz	2.700 GHz	1.000 MHz	2.69557 GHz	-32.23 dBm	-19.23 dB
2.700 GHz	2.715 GHz	1.000 MHz	2.70025 GHz	-45.97 dBm	-20.97 dB

Date: 1.MAR.2025 10:30:55

Lowest Band Edge / Full RB

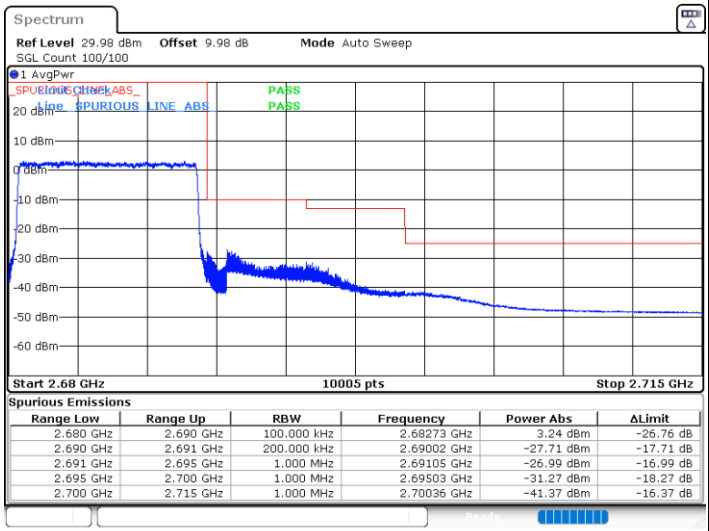


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49045 GHz	-35.53 dBm	-10.53 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49498 GHz	-31.10 dBm	-18.10 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49591 GHz	-29.98 dBm	-16.98 dB
2.496 GHz	2.506 GHz	100.000 kHz	2.49732 GHz	4.20 dBm	-25.80 dB

Date: 1.MAR.2025 10:23:00

Highest Band Edge / Full RB



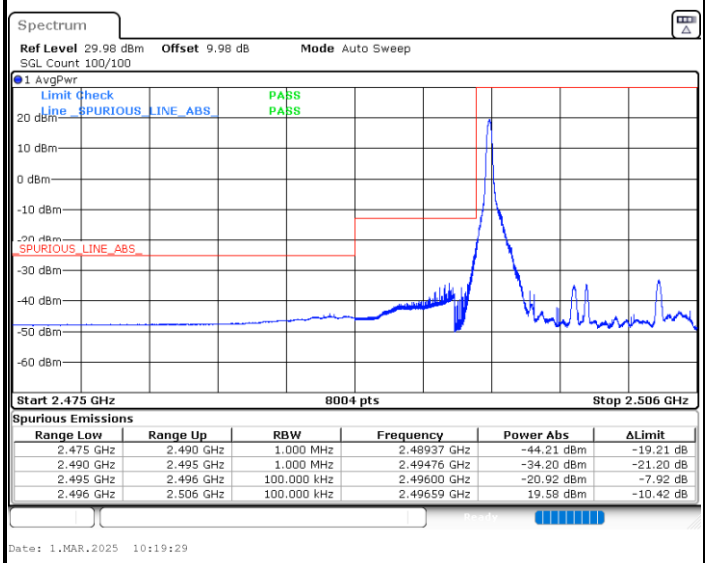
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.680 GHz	2.690 GHz	100.000 kHz	2.68273 GHz	3.24 dBm	-26.76 dB
2.690 GHz	2.691 GHz	200.000 kHz	2.69002 GHz	-27.71 dBm	-17.71 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69105 GHz	-26.99 dBm	-16.99 dB
2.695 GHz	2.700 GHz	1.000 MHz	2.69503 GHz	-31.27 dBm	-18.27 dB
2.700 GHz	2.715 GHz	1.000 MHz	2.70036 GHz	-41.37 dBm	-16.37 dB

Date: 1.MAR.2025 10:36:11

LTE Band 41 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

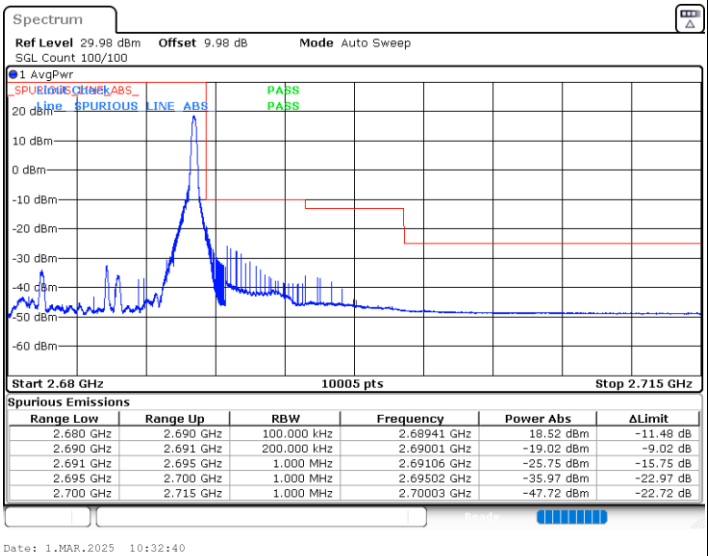


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.48937 GHz	-44.21 dBm	-19.21 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49476 GHz	-34.20 dBm	-21.20 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49600 GHz	-20.92 dBm	-7.92 dB
2.496 GHz	2.506 GHz	100.000 kHz	2.49659 GHz	19.58 dBm	-10.42 dB

Date: 1.MAR.2025 10:19:29

Highest Band Edge / 1 RB

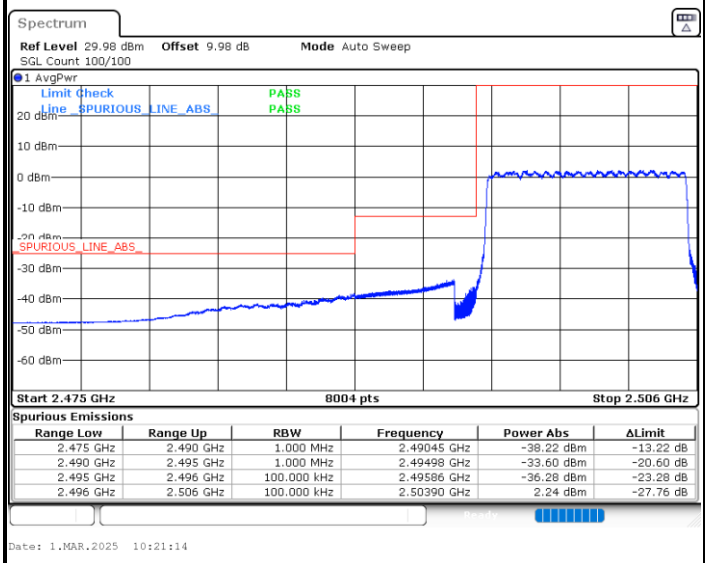


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.680 GHz	2.690 GHz	100.000 kHz	2.68941 GHz	18.52 dBm	-11.48 dB
2.690 GHz	2.691 GHz	200.000 kHz	2.69001 GHz	-19.02 dBm	-9.02 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69106 GHz	-25.75 dBm	-15.75 dB
2.695 GHz	2.700 GHz	1.000 MHz	2.69502 GHz	-35.97 dBm	-22.97 dB
2.700 GHz	2.715 GHz	1.000 MHz	2.70003 GHz	-47.72 dBm	-22.72 dB

Date: 1.MAR.2025 10:32:40

Lowest Band Edge / Full RB

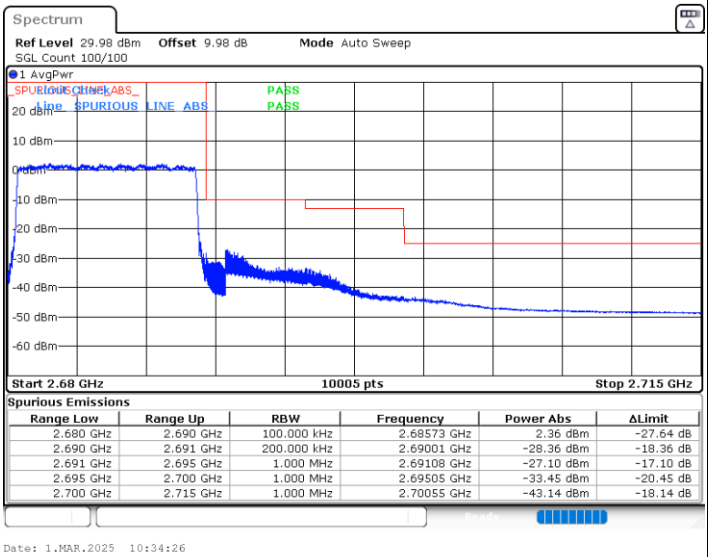


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49045 GHz	-38.22 dBm	-13.22 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49498 GHz	-33.60 dBm	-20.60 dB
2.495 GHz	2.496 GHz	100.000 kHz	2.49586 GHz	-36.28 dBm	-23.28 dB
2.496 GHz	2.506 GHz	100.000 kHz	2.50390 GHz	2.24 dBm	-27.76 dB

Date: 1.MAR.2025 10:21:14

Highest Band Edge / Full RB



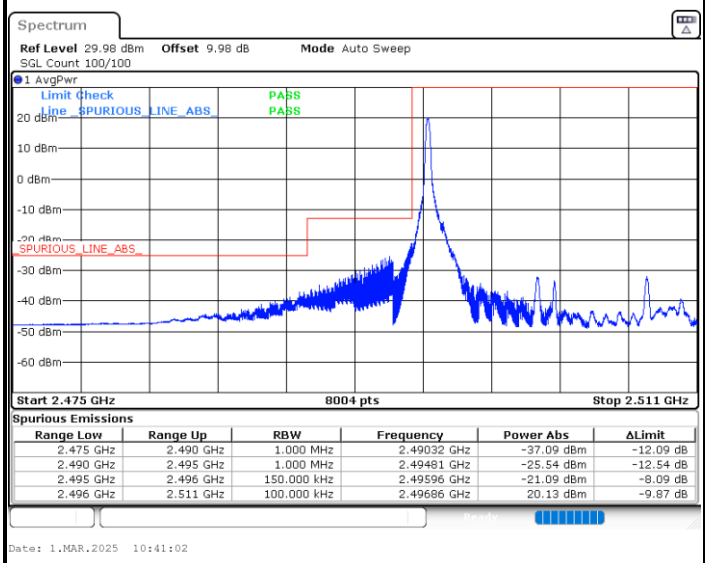
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.680 GHz	2.690 GHz	100.000 kHz	2.68573 GHz	2.36 dBm	-27.64 dB
2.690 GHz	2.691 GHz	200.000 kHz	2.69001 GHz	-28.36 dBm	-18.36 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69108 GHz	-27.10 dBm	-17.10 dB
2.695 GHz	2.700 GHz	1.000 MHz	2.69505 GHz	-33.45 dBm	-20.45 dB
2.700 GHz	2.715 GHz	1.000 MHz	2.70055 GHz	-43.14 dBm	-18.14 dB

Date: 1.MAR.2025 10:34:26

LTE Band 41 / 15MHz / QPSK

Lowest Band Edge / 1 RB

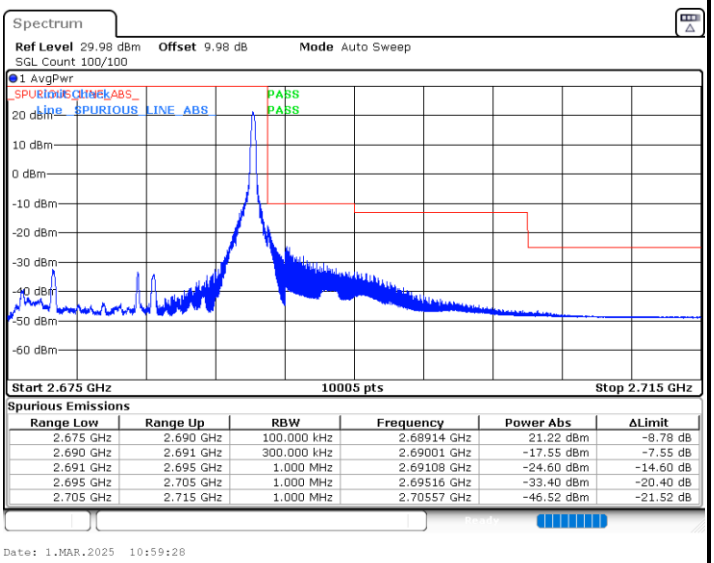


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49032 GHz	-37.09 dBm	-12.09 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49481 GHz	-25.54 dBm	-12.54 dB
2.495 GHz	2.496 GHz	150.000 kHz	2.49596 GHz	-21.09 dBm	-8.09 dB
2.496 GHz	2.511 GHz	100.000 kHz	2.49686 GHz	20.13 dBm	-9.87 dB

Date: 1.MAR.2025 10:41:02

Highest Band Edge / 1 RB

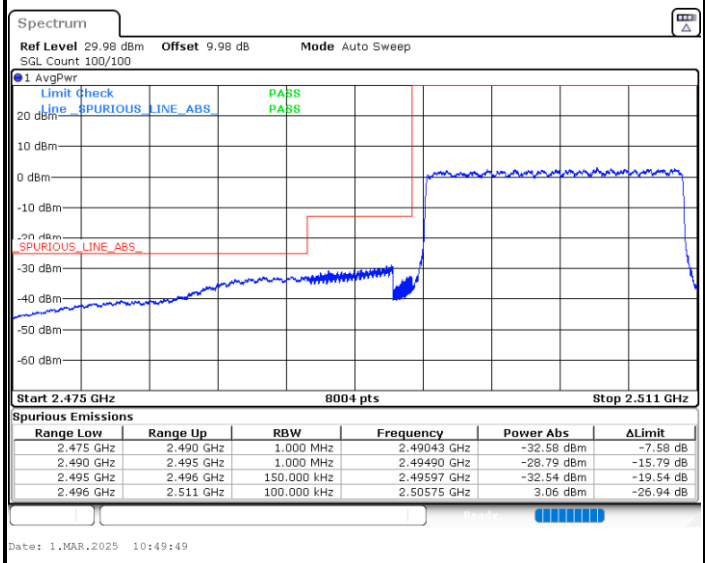


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.675 GHz	2.690 GHz	100.000 kHz	2.68914 GHz	21.22 dBm	-8.78 dB
2.690 GHz	2.691 GHz	300.000 kHz	2.69001 GHz	-17.55 dBm	-7.55 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69108 GHz	-24.60 dBm	-14.60 dB
2.695 GHz	2.705 GHz	1.000 MHz	2.69516 GHz	-33.40 dBm	-20.40 dB
2.705 GHz	2.715 GHz	1.000 MHz	2.70557 GHz	-46.52 dBm	-21.52 dB

Date: 1.MAR.2025 10:59:28

Lowest Band Edge / Full RB

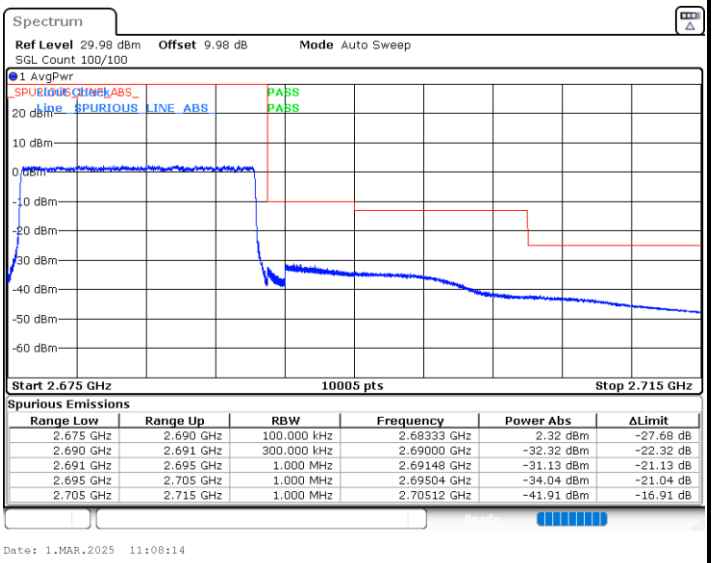


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49043 GHz	-32.58 dBm	-7.58 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49490 GHz	-28.79 dBm	-15.79 dB
2.495 GHz	2.496 GHz	150.000 kHz	2.49597 GHz	-32.54 dBm	-19.54 dB
2.496 GHz	2.511 GHz	100.000 kHz	2.50575 GHz	3.06 dBm	-26.94 dB

Date: 1.MAR.2025 10:49:49

Highest Band Edge / Full RB



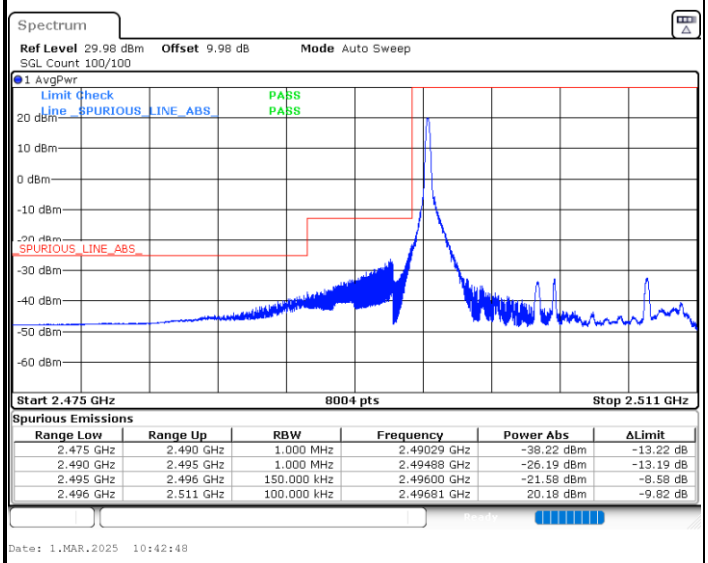
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.675 GHz	2.690 GHz	100.000 kHz	2.68333 GHz	2.32 dBm	-27.68 dB
2.690 GHz	2.691 GHz	300.000 kHz	2.69000 GHz	-32.32 dBm	-22.32 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69148 GHz	-31.13 dBm	-21.13 dB
2.695 GHz	2.705 GHz	1.000 MHz	2.69504 GHz	-34.04 dBm	-21.04 dB
2.705 GHz	2.715 GHz	1.000 MHz	2.70512 GHz	-41.91 dBm	-16.91 dB

Date: 1.MAR.2025 11:08:14

LTE Band 41 / 15MHz / 16QAM

Lowest Band Edge / 1 RB

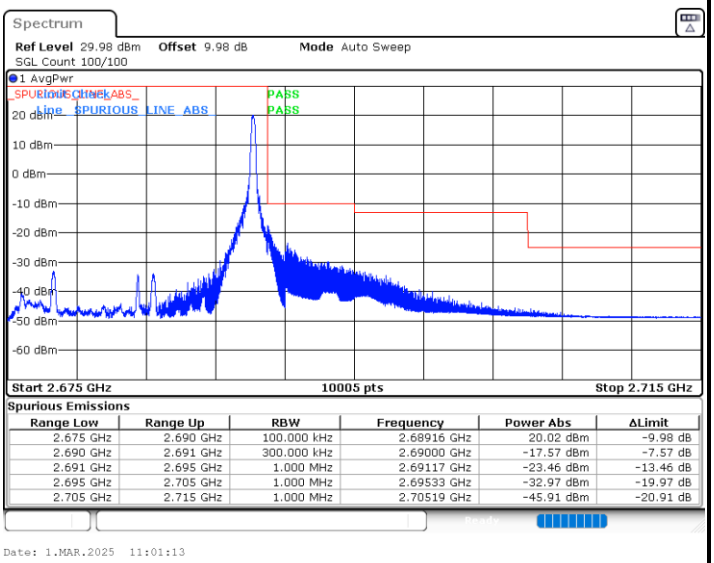


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49029 GHz	-38.22 dBm	-13.22 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49488 GHz	-26.19 dBm	-13.19 dB
2.495 GHz	2.496 GHz	150.000 kHz	2.49600 GHz	-21.58 dBm	-8.58 dB
2.496 GHz	2.511 GHz	100.000 kHz	2.49681 GHz	20.18 dBm	-9.82 dB

Date: 1.MAR.2025 10:42:48

Highest Band Edge / 1 RB

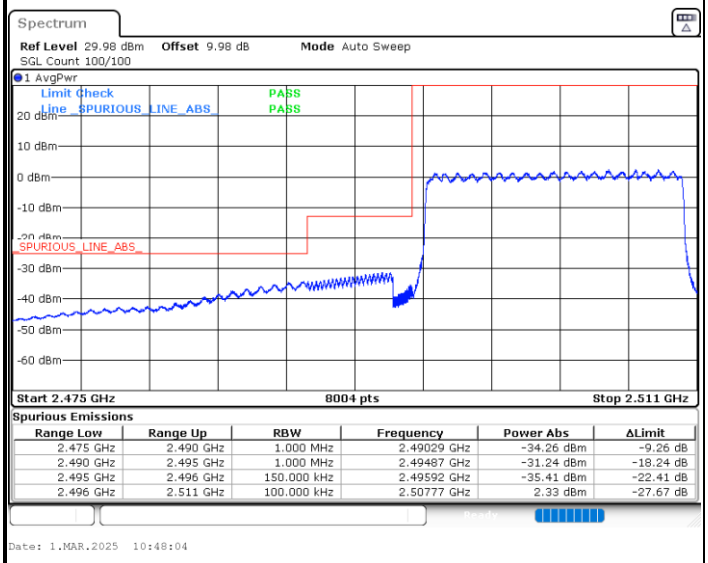


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.675 GHz	2.690 GHz	100.000 kHz	2.68916 GHz	20.02 dBm	-9.98 dB
2.690 GHz	2.691 GHz	300.000 kHz	2.69000 GHz	-17.57 dBm	-7.57 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69117 GHz	-23.46 dBm	-13.46 dB
2.695 GHz	2.705 GHz	1.000 MHz	2.69533 GHz	-32.97 dBm	-19.97 dB
2.705 GHz	2.715 GHz	1.000 MHz	2.70519 GHz	-45.91 dBm	-20.91 dB

Date: 1.MAR.2025 11:01:13

Lowest Band Edge / Full RB

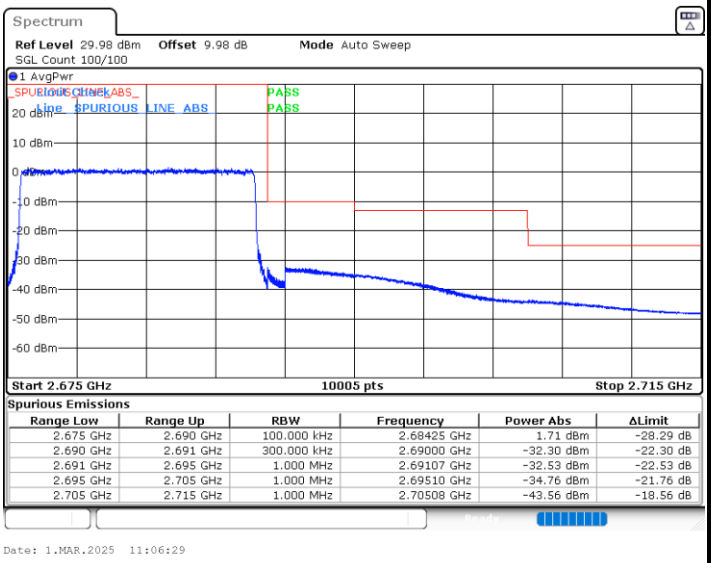


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49029 GHz	-34.26 dBm	-9.26 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49487 GHz	-31.24 dBm	-18.24 dB
2.495 GHz	2.496 GHz	150.000 kHz	2.49592 GHz	-35.41 dBm	-22.41 dB
2.496 GHz	2.511 GHz	100.000 kHz	2.50777 GHz	2.33 dBm	-27.67 dB

Date: 1.MAR.2025 10:48:04

Highest Band Edge / Full RB



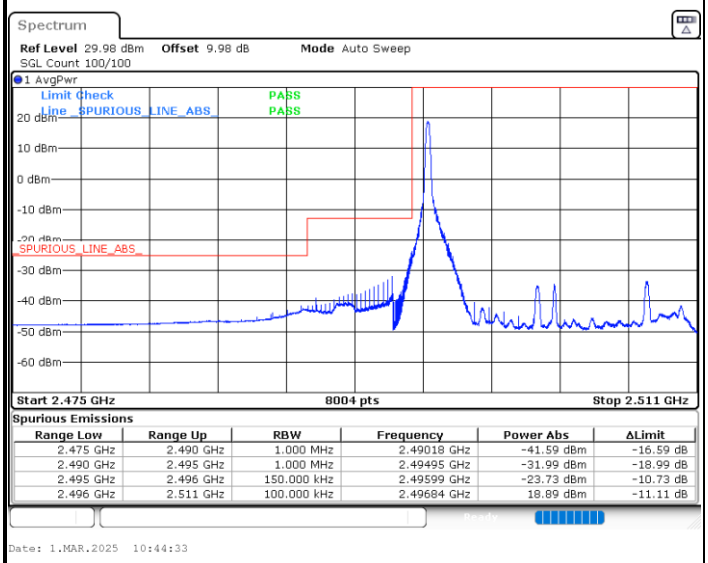
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.675 GHz	2.690 GHz	100.000 kHz	2.68425 GHz	1.71 dBm	-28.29 dB
2.690 GHz	2.691 GHz	300.000 kHz	2.69000 GHz	-32.30 dBm	-22.30 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69107 GHz	-32.53 dBm	-22.53 dB
2.695 GHz	2.705 GHz	1.000 MHz	2.69510 GHz	-34.76 dBm	-21.76 dB
2.705 GHz	2.715 GHz	1.000 MHz	2.70508 GHz	-43.56 dBm	-18.56 dB

Date: 1.MAR.2025 11:06:29

LTE Band 41 / 15MHz / 64QAM

Lowest Band Edge / 1 RB

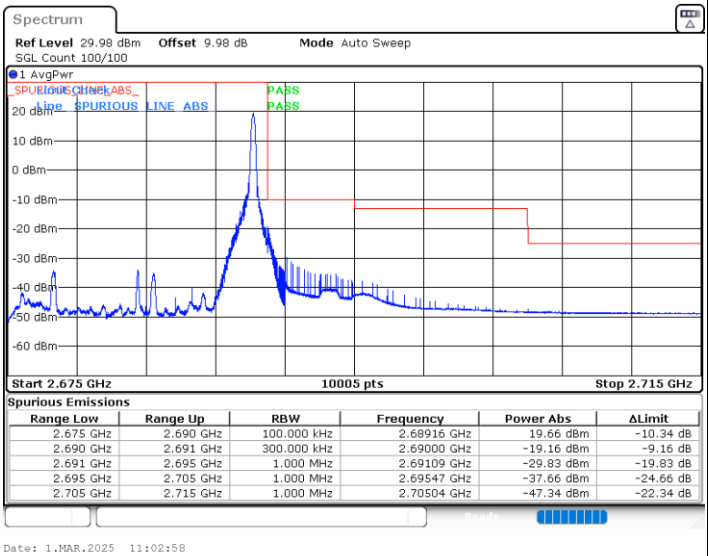


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49018 GHz	-41.59 dBm	-16.59 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49495 GHz	-31.99 dBm	-18.99 dB
2.495 GHz	2.496 GHz	150.000 kHz	2.49599 GHz	-23.73 dBm	-10.73 dB
2.496 GHz	2.511 GHz	100.000 kHz	2.49684 GHz	18.89 dBm	-11.11 dB

Date: 1.MAR.2025 10:44:33

Highest Band Edge / 1 RB

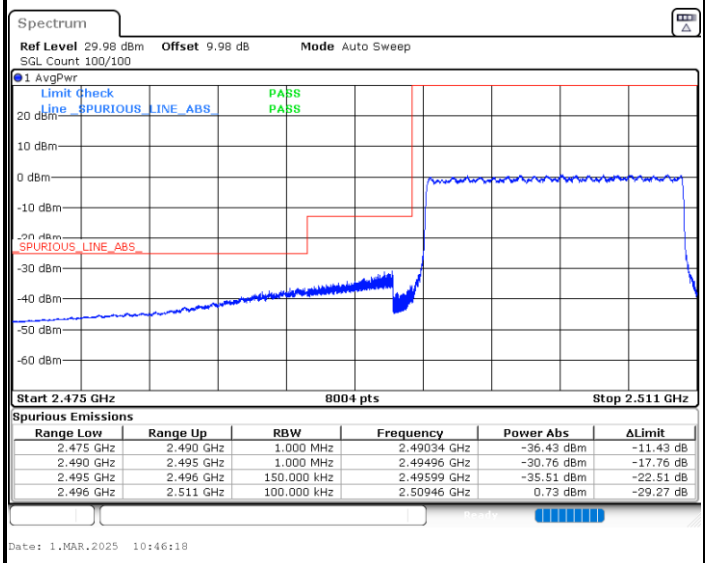


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.675 GHz	2.690 GHz	100.000 kHz	2.68916 GHz	19.66 dBm	-10.34 dB
2.690 GHz	2.691 GHz	300.000 kHz	2.69000 GHz	-19.16 dBm	-9.16 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69109 GHz	-29.83 dBm	-19.83 dB
2.695 GHz	2.705 GHz	1.000 MHz	2.69547 GHz	-37.66 dBm	-24.66 dB
2.705 GHz	2.715 GHz	1.000 MHz	2.70504 GHz	-47.34 dBm	-22.34 dB

Date: 1.MAR.2025 11:02:58

Lowest Band Edge / Full RB

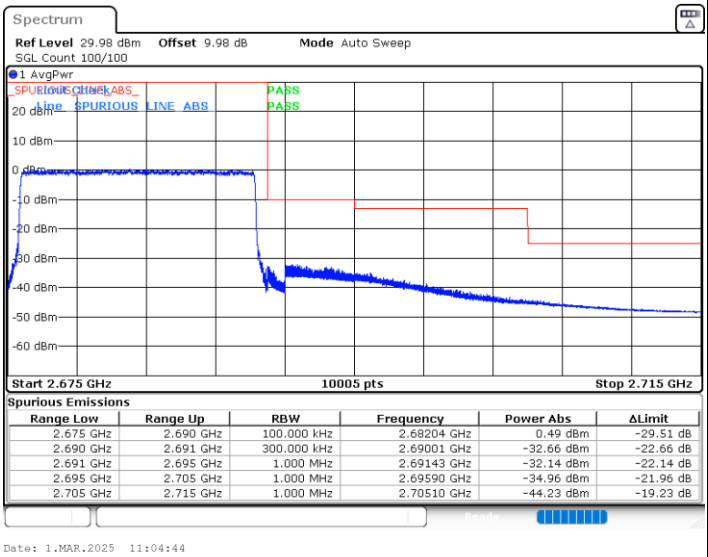


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49034 GHz	-36.43 dBm	-11.43 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49496 GHz	-30.76 dBm	-17.76 dB
2.495 GHz	2.496 GHz	150.000 kHz	2.49599 GHz	-35.51 dBm	-22.51 dB
2.496 GHz	2.511 GHz	100.000 kHz	2.50946 GHz	0.73 dBm	-29.27 dB

Date: 1.MAR.2025 10:46:18

Highest Band Edge / Full RB



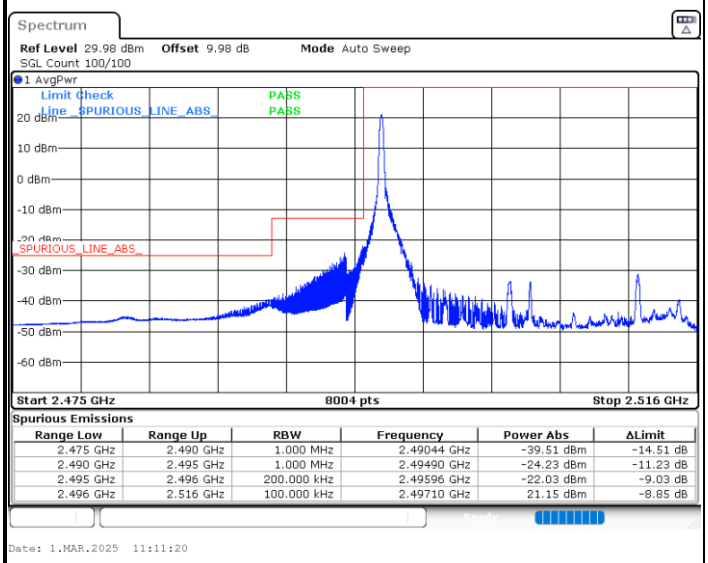
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.675 GHz	2.690 GHz	100.000 kHz	2.68204 GHz	0.49 dBm	-29.51 dB
2.690 GHz	2.691 GHz	300.000 kHz	2.69001 GHz	-32.66 dBm	-22.66 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69143 GHz	-32.14 dBm	-22.14 dB
2.695 GHz	2.705 GHz	1.000 MHz	2.69590 GHz	-34.96 dBm	-21.96 dB
2.705 GHz	2.715 GHz	1.000 MHz	2.70510 GHz	-44.23 dBm	-19.23 dB

Date: 1.MAR.2025 11:04:44

LTE Band 41 / 20MHz / QPSK

Lowest Band Edge / 1 RB

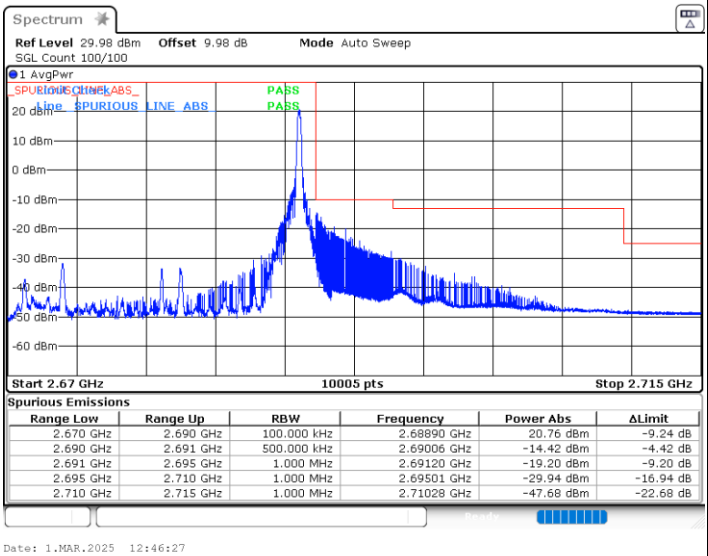


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49044 GHz	-39.51 dBm	-14.51 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49490 GHz	-24.23 dBm	-11.23 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49596 GHz	-22.03 dBm	-9.03 dB
2.496 GHz	2.516 GHz	100.000 kHz	2.49710 GHz	21.15 dBm	-8.85 dB

Date: 1.MAR.2025 11:11:20

Highest Band Edge / 1 RB

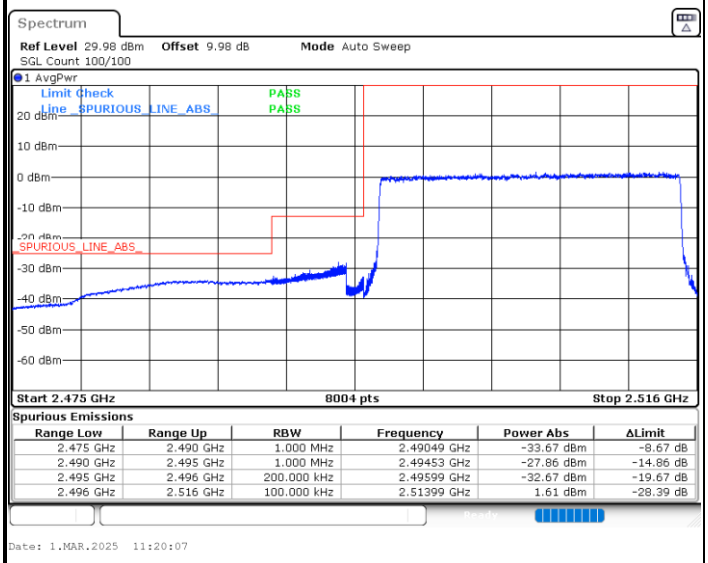


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.670 GHz	2.690 GHz	100.000 kHz	2.68890 GHz	20.76 dBm	-9.24 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69006 GHz	-14.42 dBm	-4.42 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69120 GHz	-19.20 dBm	-9.20 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69501 GHz	-29.94 dBm	-16.94 dB
2.710 GHz	2.715 GHz	1.000 MHz	2.71028 GHz	-47.68 dBm	-22.68 dB

Date: 1.MAR.2025 12:46:27

Lowest Band Edge / Full RB

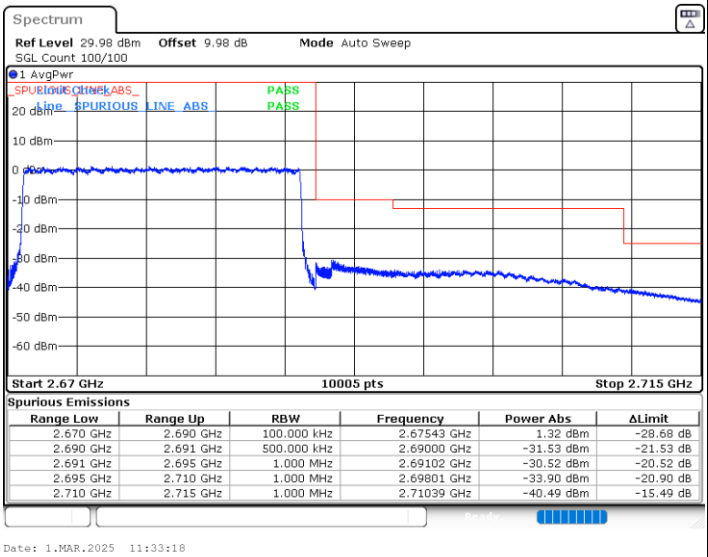


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49049 GHz	-33.67 dBm	-8.67 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49453 GHz	-27.86 dBm	-14.86 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49599 GHz	-32.67 dBm	-19.67 dB
2.496 GHz	2.516 GHz	100.000 kHz	2.51399 GHz	1.61 dBm	-28.39 dB

Date: 1.MAR.2025 11:20:07

Highest Band Edge / Full RB



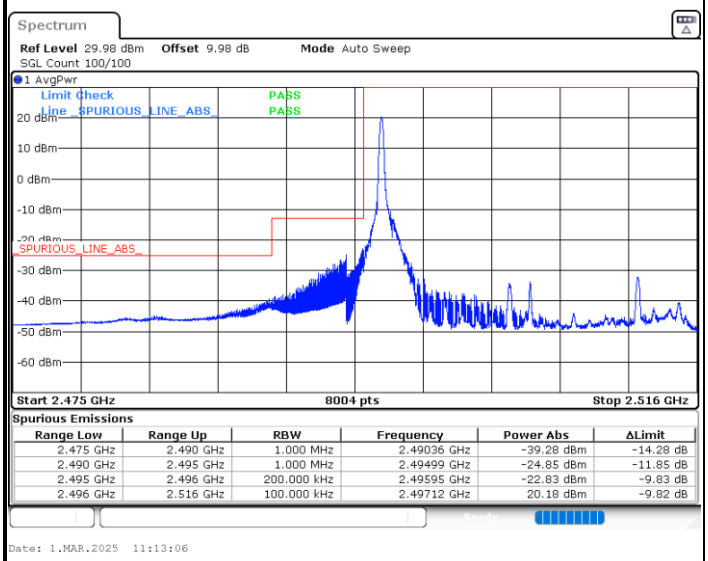
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.670 GHz	2.690 GHz	100.000 kHz	2.67543 GHz	1.32 dBm	-28.68 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69000 GHz	-31.53 dBm	-21.53 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69102 GHz	-30.52 dBm	-20.52 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69801 GHz	-33.90 dBm	-20.90 dB
2.710 GHz	2.715 GHz	1.000 MHz	2.71039 GHz	-40.49 dBm	-15.49 dB

Date: 1.MAR.2025 11:33:18

LTE Band 41 / 20MHz / 16QAM

Lowest Band Edge / 1 RB

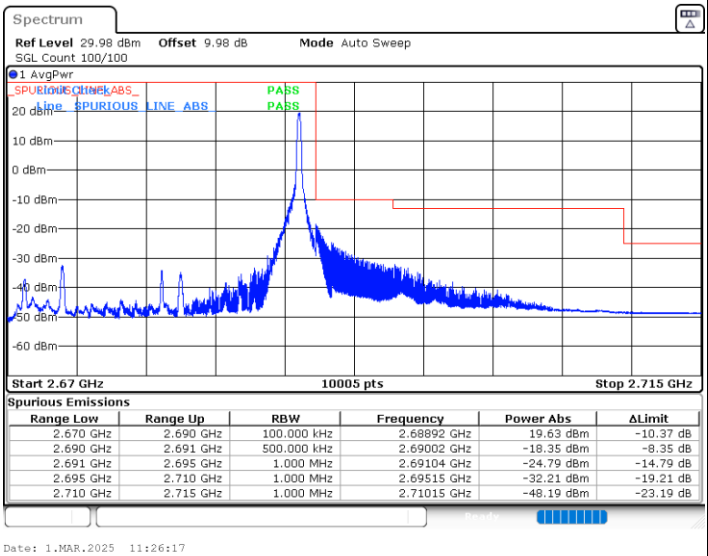


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49036 GHz	-39.28 dBm	-14.28 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49499 GHz	-24.85 dBm	-11.85 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49595 GHz	-22.83 dBm	-9.83 dB
2.496 GHz	2.516 GHz	100.000 kHz	2.49712 GHz	20.18 dBm	-9.82 dB

Date: 1.MAR.2025 11:13:06

Highest Band Edge / 1 RB

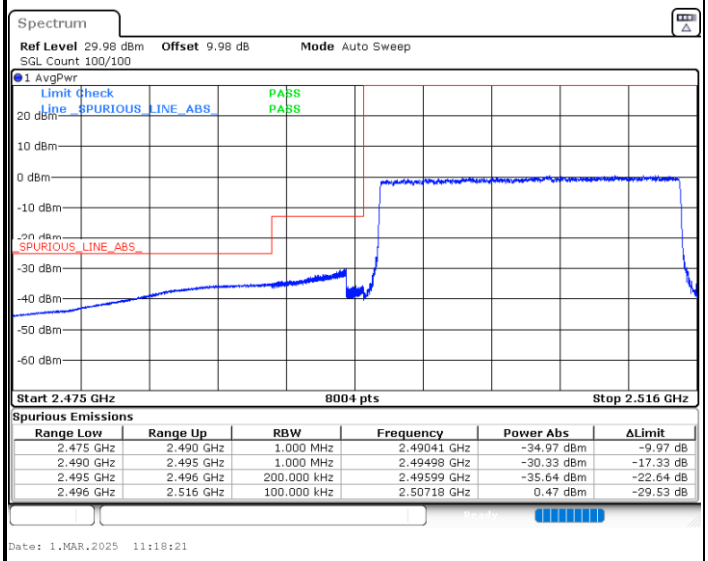


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.670 GHz	2.690 GHz	100.000 kHz	2.68892 GHz	19.63 dBm	-10.37 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69002 GHz	-18.35 dBm	-8.35 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69104 GHz	-24.79 dBm	-14.79 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69515 GHz	-32.21 dBm	-19.21 dB
2.710 GHz	2.715 GHz	1.000 MHz	2.71015 GHz	-48.19 dBm	-23.19 dB

Date: 1.MAR.2025 11:26:17

Lowest Band Edge / Full RB

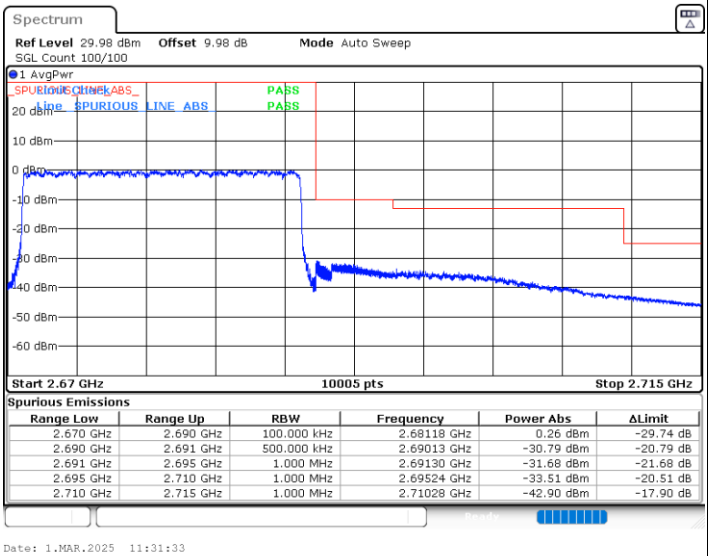


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49041 GHz	-34.97 dBm	-9.97 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49498 GHz	-30.33 dBm	-17.33 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49599 GHz	-35.64 dBm	-22.64 dB
2.496 GHz	2.516 GHz	100.000 kHz	2.50718 GHz	0.47 dBm	-29.53 dB

Date: 1.MAR.2025 11:18:21

Highest Band Edge / Full RB



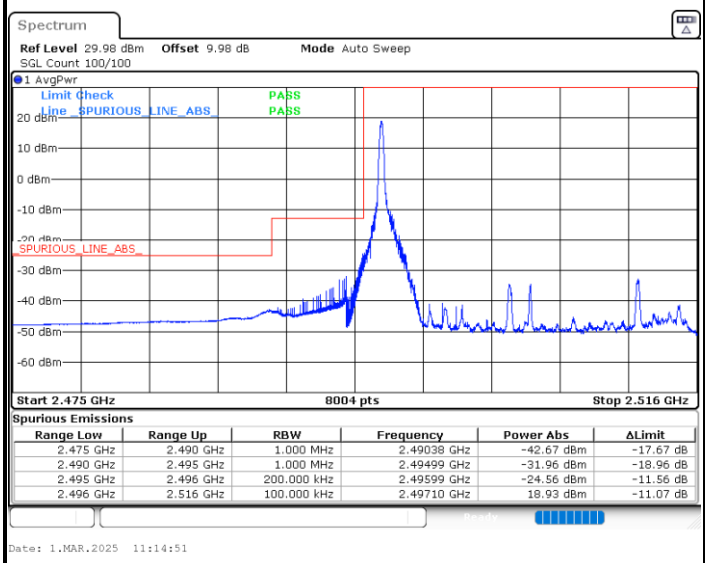
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.670 GHz	2.690 GHz	100.000 kHz	2.68118 GHz	0.26 dBm	-29.74 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69013 GHz	-30.79 dBm	-20.79 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69130 GHz	-31.68 dBm	-21.68 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69524 GHz	-33.51 dBm	-20.51 dB
2.710 GHz	2.715 GHz	1.000 MHz	2.71028 GHz	-42.90 dBm	-17.90 dB

Date: 1.MAR.2025 11:31:33

LTE Band 41 / 20MHz / 64QAM

Lowest Band Edge / 1 RB

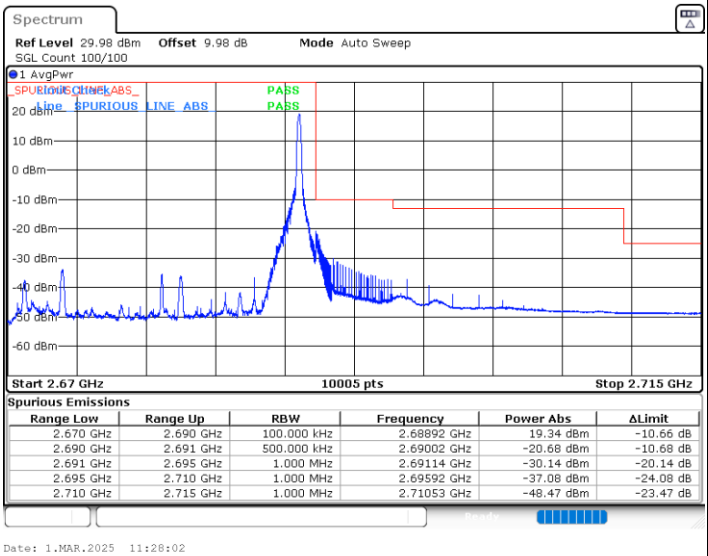


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49038 GHz	-42.67 dBm	-17.67 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49499 GHz	-31.96 dBm	-18.96 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49599 GHz	-24.56 dBm	-11.56 dB
2.496 GHz	2.516 GHz	100.000 kHz	2.49710 GHz	18.93 dBm	-11.07 dB

Date: 1.MAR.2025 11:14:51

Highest Band Edge / 1 RB

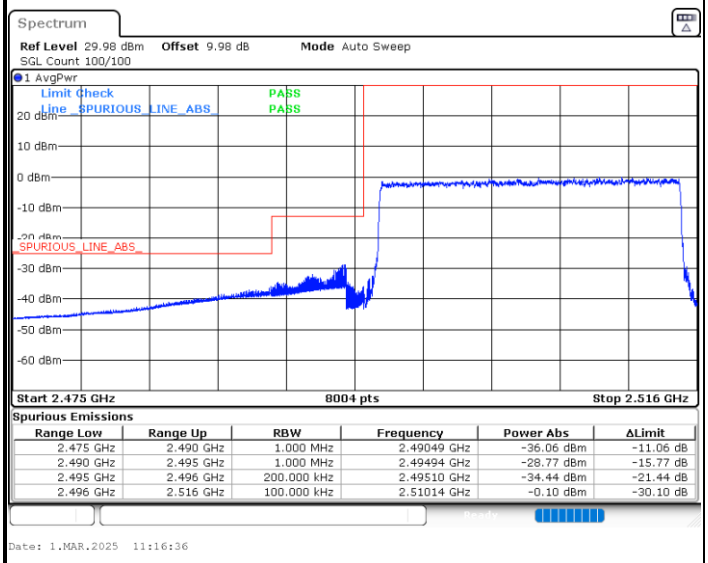


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.670 GHz	2.690 GHz	100.000 kHz	2.68892 GHz	19.34 dBm	-10.66 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69002 GHz	-20.68 dBm	-10.68 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69114 GHz	-30.14 dBm	-20.14 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69592 GHz	-37.08 dBm	-24.08 dB
2.710 GHz	2.715 GHz	1.000 MHz	2.71053 GHz	-48.47 dBm	-23.47 dB

Date: 1.MAR.2025 11:28:02

Lowest Band Edge / Full RB

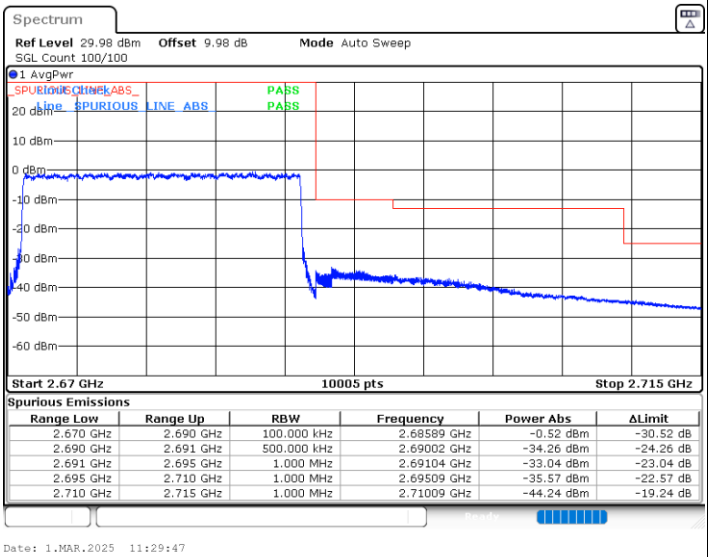


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.475 GHz	2.490 GHz	1.000 MHz	2.49049 GHz	-36.06 dBm	-11.06 dB
2.490 GHz	2.495 GHz	1.000 MHz	2.49494 GHz	-28.77 dBm	-15.77 dB
2.495 GHz	2.496 GHz	200.000 kHz	2.49510 GHz	-34.44 dBm	-21.44 dB
2.496 GHz	2.516 GHz	100.000 kHz	2.51014 GHz	-0.10 dBm	-30.10 dB

Date: 1.MAR.2025 11:16:36

Highest Band Edge / Full RB



Spurious Emissions

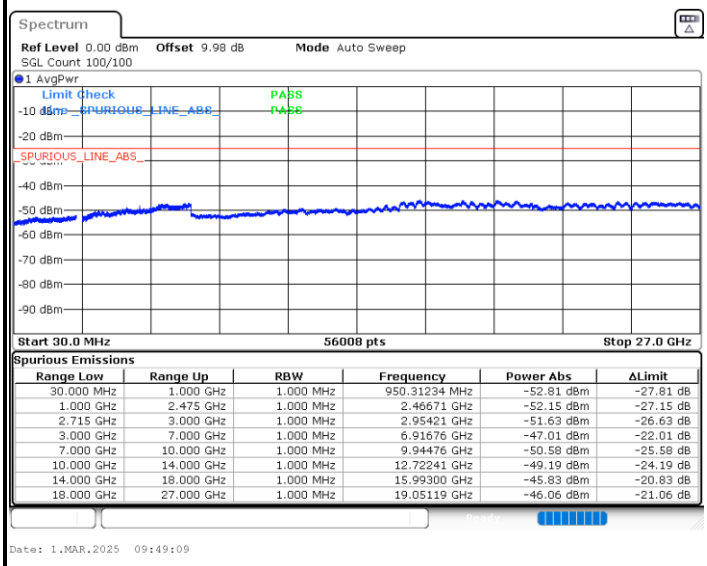
Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
2.670 GHz	2.690 GHz	100.000 kHz	2.68589 GHz	-0.52 dBm	-30.52 dB
2.690 GHz	2.691 GHz	500.000 kHz	2.69002 GHz	-34.26 dBm	-24.26 dB
2.691 GHz	2.695 GHz	1.000 MHz	2.69104 GHz	-33.04 dBm	-23.04 dB
2.695 GHz	2.710 GHz	1.000 MHz	2.69509 GHz	-35.57 dBm	-22.57 dB
2.710 GHz	2.715 GHz	1.000 MHz	2.71009 GHz	-44.24 dBm	-19.24 dB

Date: 1.MAR.2025 11:29:47

Conducted Spurious Emission

LTE Band 41 / 5MHz

Lowest Channel / QPSK

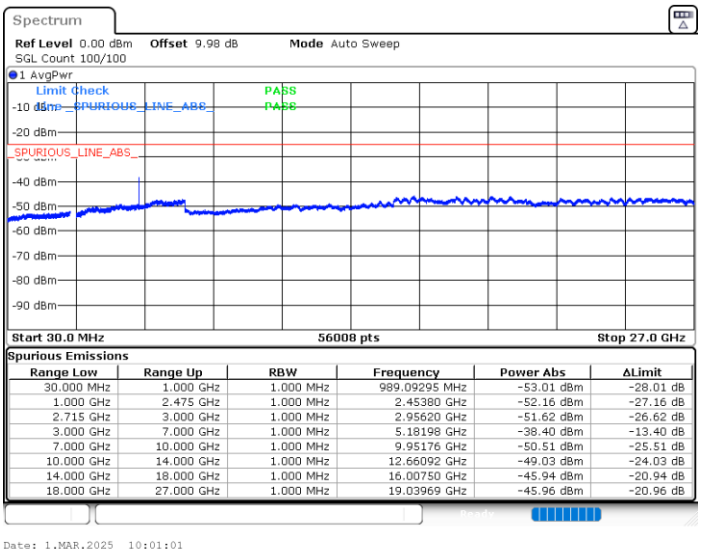


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	950.31234 MHz	-52.81 dBm	-27.81 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.46671 GHz	-52.15 dBm	-27.15 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.95421 GHz	-51.63 dBm	-26.63 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91676 GHz	-47.01 dBm	-22.01 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.94476 GHz	-50.58 dBm	-25.58 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.72241 GHz	-49.19 dBm	-24.19 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.99300 GHz	-45.83 dBm	-20.83 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.05119 GHz	-46.06 dBm	-21.06 dB

Date: 1.MAR.2025 09:49:09

Middle Channel / QPSK

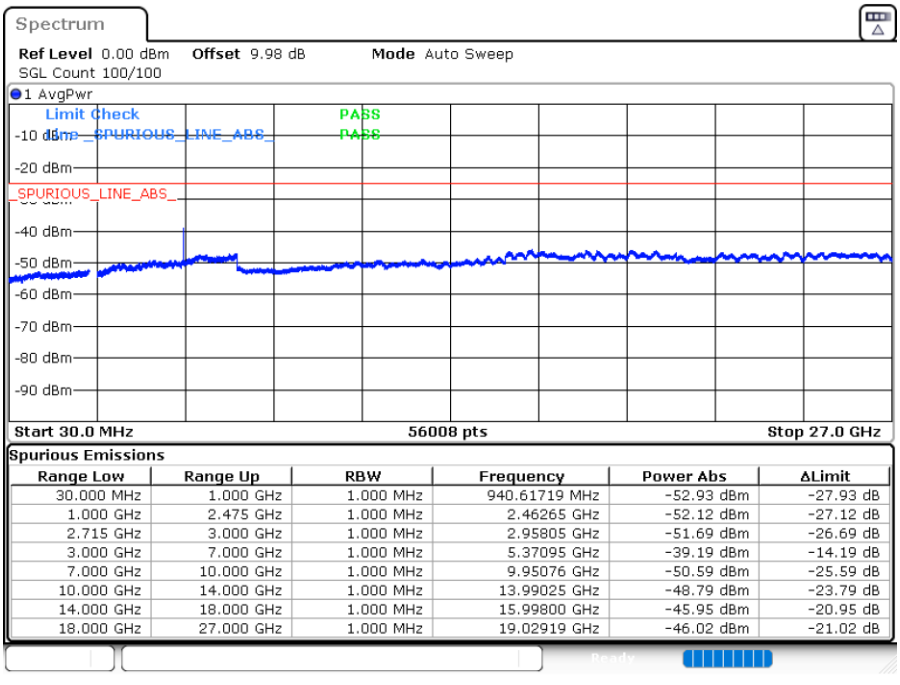


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	989.09295 MHz	-53.01 dBm	-28.01 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.45380 GHz	-52.16 dBm	-27.16 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.95620 GHz	-51.62 dBm	-26.62 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.18198 GHz	-38.40 dBm	-13.40 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.95176 GHz	-50.51 dBm	-25.51 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.66092 GHz	-49.03 dBm	-24.03 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.00750 GHz	-45.94 dBm	-20.94 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.03969 GHz	-45.96 dBm	-20.96 dB

Date: 1.MAR.2025 10:01:01

Highest Channel / QPSK



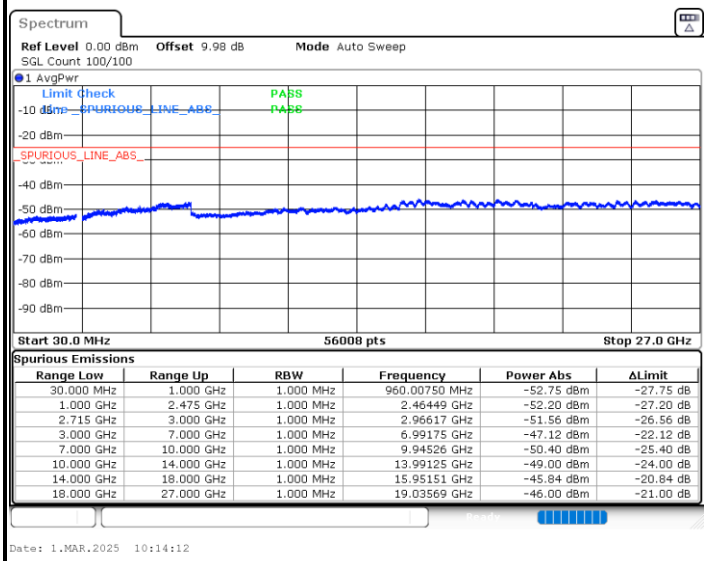
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	940.61719 MHz	-52.93 dBm	-27.93 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.46265 GHz	-52.12 dBm	-27.12 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.95805 GHz	-51.69 dBm	-26.69 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.37095 GHz	-39.19 dBm	-14.19 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.95076 GHz	-50.59 dBm	-25.59 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.99025 GHz	-48.79 dBm	-23.79 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.99800 GHz	-45.95 dBm	-20.95 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.02919 GHz	-46.02 dBm	-21.02 dB

Date: 1.MAR.2025 10:02:21

LTE Band 41 / 10MHz

Lowest Channel / QPSK

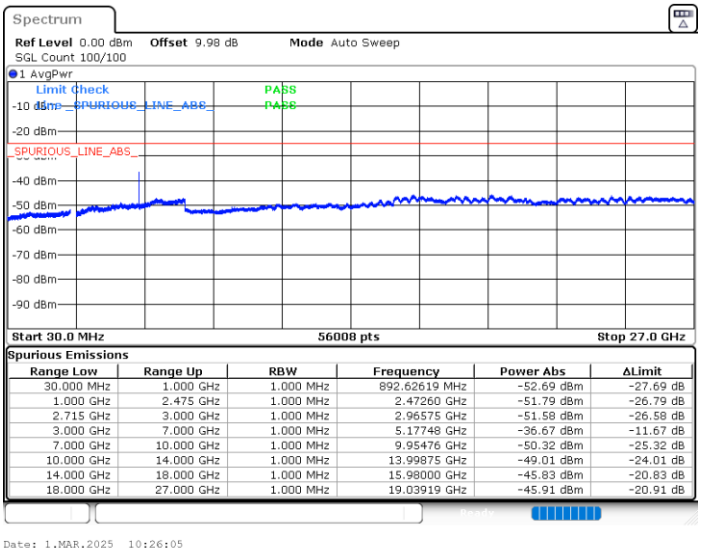


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	960.00750 MHz	-52.75 dBm	-27.75 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.46449 GHz	-52.20 dBm	-27.20 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.96617 GHz	-51.56 dBm	-26.56 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99175 GHz	-47.12 dBm	-22.12 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.94526 GHz	-50.40 dBm	-25.40 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.99125 GHz	-49.00 dBm	-24.00 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.95151 GHz	-45.84 dBm	-20.84 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.03569 GHz	-46.00 dBm	-21.00 dB

Date: 1.MAR.2025 10:14:12

Middle Channel / QPSK

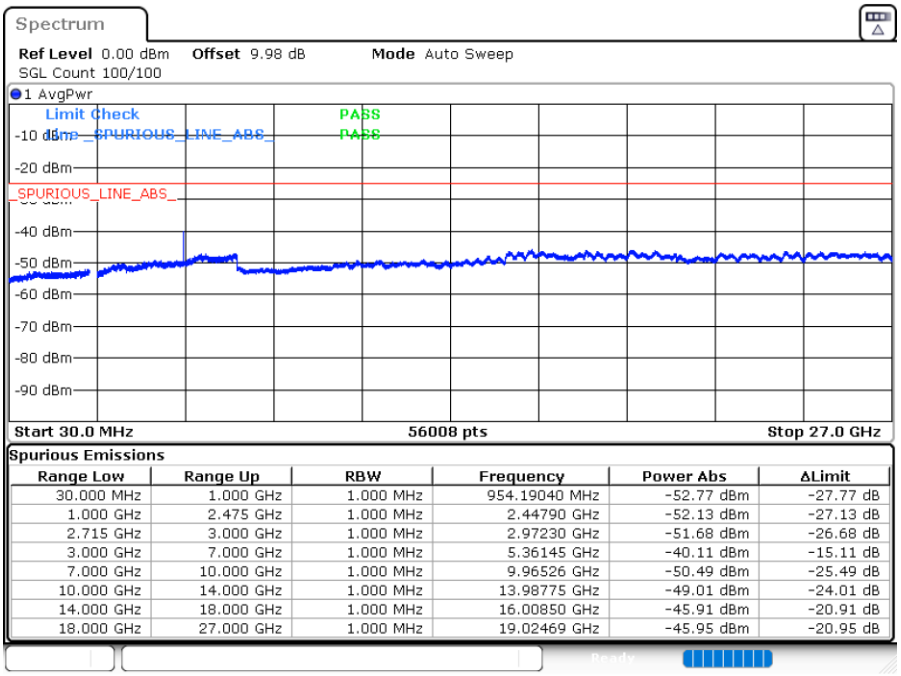


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	892.62619 MHz	-52.69 dBm	-27.69 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.47260 GHz	-51.79 dBm	-26.79 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.96575 GHz	-51.58 dBm	-26.58 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.17748 GHz	-36.67 dBm	-11.67 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.95476 GHz	-50.32 dBm	-25.32 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.99875 GHz	-49.01 dBm	-24.01 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.98000 GHz	-45.83 dBm	-20.83 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.03919 GHz	-45.91 dBm	-20.91 dB

Date: 1.MAR.2025 10:26:05

Highest Channel / QPSK



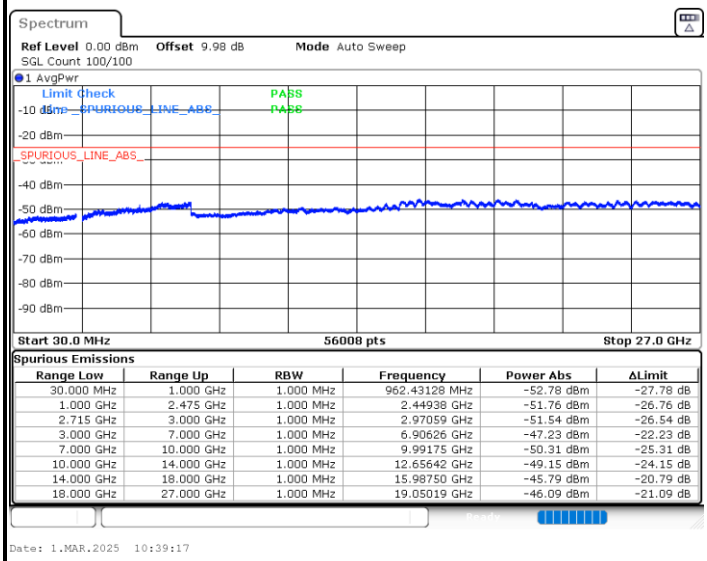
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	954.19040 MHz	-52.77 dBm	-27.77 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.44790 GHz	-52.13 dBm	-27.13 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.97230 GHz	-51.68 dBm	-26.68 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.36145 GHz	-40.11 dBm	-15.11 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.96526 GHz	-50.49 dBm	-25.49 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.98775 GHz	-49.01 dBm	-24.01 dB
14.000 GHz	18.000 GHz	1.000 MHz	16.00850 GHz	-45.91 dBm	-20.91 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.02469 GHz	-45.95 dBm	-20.95 dB

Date: 1.MAR.2025 10:27:25

LTE Band 41 / 15MHz

Lowest Channel / QPSK

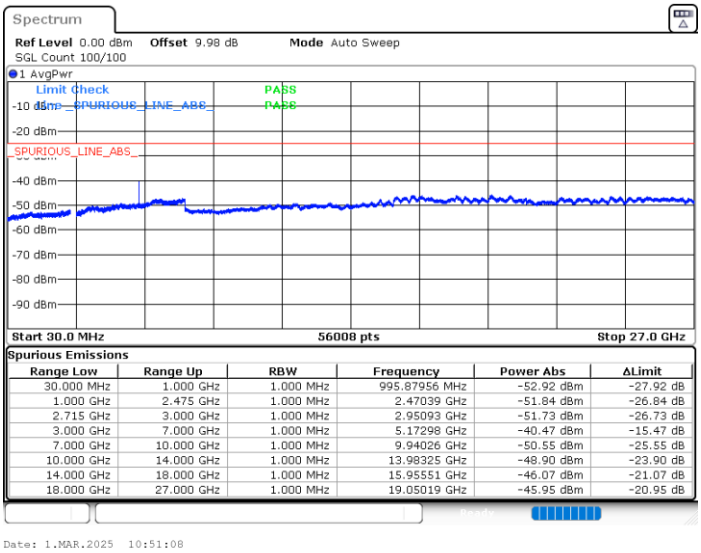


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	962.43128 MHz	-52.78 dBm	-27.78 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.44938 GHz	-51.76 dBm	-26.76 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.97059 GHz	-51.54 dBm	-26.54 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90626 GHz	-47.23 dBm	-22.23 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.99175 GHz	-50.31 dBm	-25.31 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.65642 GHz	-49.15 dBm	-24.15 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.98750 GHz	-45.79 dBm	-20.79 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.05019 GHz	-46.09 dBm	-21.09 dB

Date: 1.MAR.2025 10:39:17

Middle Channel / QPSK

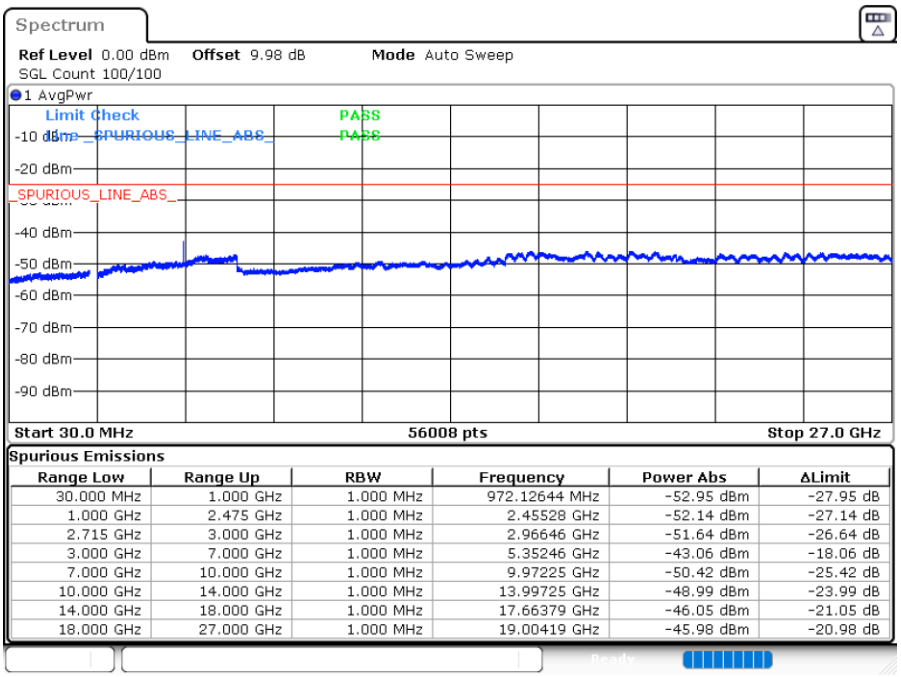


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	995.87956 MHz	-52.92 dBm	-27.92 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.47039 GHz	-51.84 dBm	-26.84 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.95093 GHz	-51.73 dBm	-26.73 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.17298 GHz	-40.47 dBm	-15.47 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.94026 GHz	-50.55 dBm	-25.55 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.98325 GHz	-48.90 dBm	-23.90 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.95551 GHz	-46.07 dBm	-21.07 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.05019 GHz	-45.95 dBm	-20.95 dB

Date: 1.MAR.2025 10:51:08

Highest Channel / QPSK



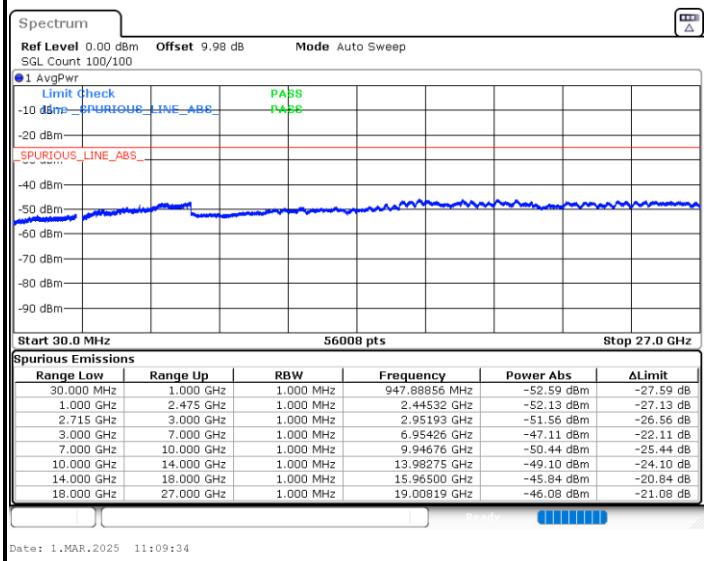
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	972.12644 MHz	-52.95 dBm	-27.95 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.45528 GHz	-52.14 dBm	-27.14 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.96646 GHz	-51.64 dBm	-26.64 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.35246 GHz	-43.06 dBm	-18.06 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.97225 GHz	-50.42 dBm	-25.42 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.99725 GHz	-48.99 dBm	-23.99 dB
14.000 GHz	18.000 GHz	1.000 MHz	17.66379 GHz	-46.05 dBm	-21.05 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.00419 GHz	-45.98 dBm	-20.98 dB

Date: 1.MAR.2025 10:53:43

LTE Band 41 / 20MHz

Lowest Channel / QPSK

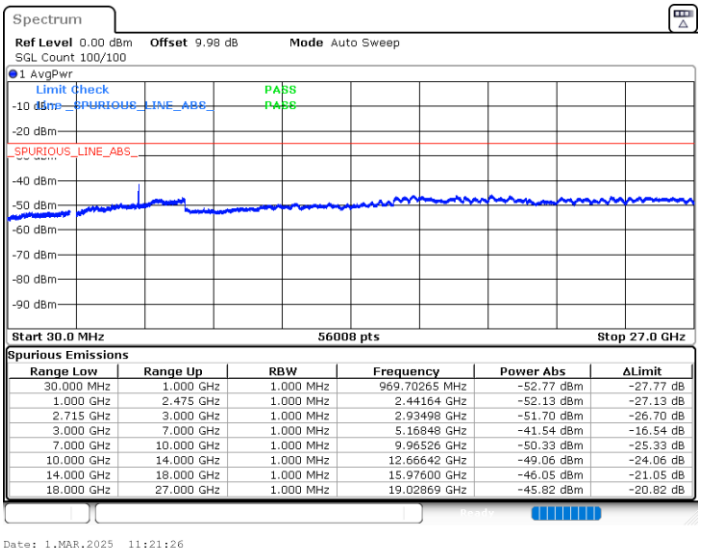


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	947.88856 MHz	-52.59 dBm	-27.59 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.44532 GHz	-52.13 dBm	-27.13 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.95193 GHz	-51.56 dBm	-26.56 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.95426 GHz	-47.11 dBm	-22.11 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.94676 GHz	-50.44 dBm	-25.44 dB
10.000 GHz	14.000 GHz	1.000 MHz	13.98275 GHz	-49.10 dBm	-24.10 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.96500 GHz	-45.84 dBm	-20.84 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.00819 GHz	-46.08 dBm	-21.08 dB

Date: 1.MAR.2025 11:09:34

Middle Channel / QPSK

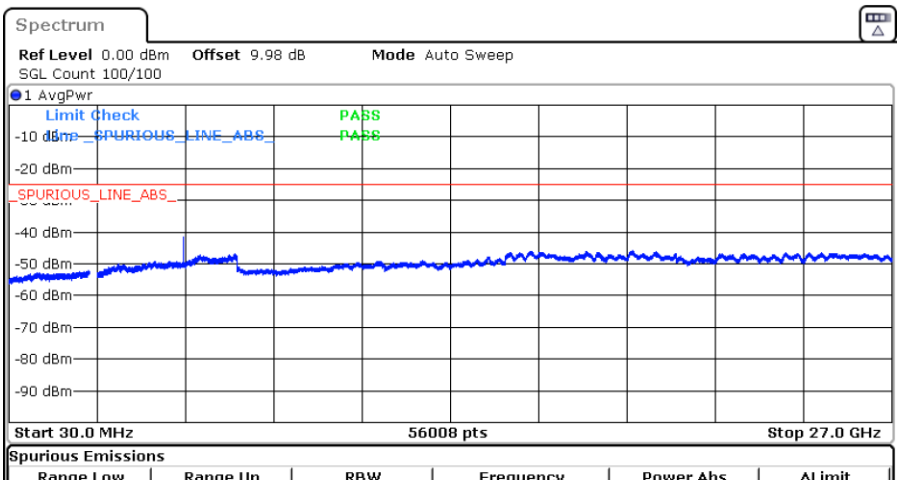


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	969.70265 MHz	-52.77 dBm	-27.77 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.44164 GHz	-52.13 dBm	-27.13 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.93498 GHz	-51.70 dBm	-26.70 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.16848 GHz	-41.54 dBm	-16.54 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.96526 GHz	-50.33 dBm	-25.33 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.66642 GHz	-49.06 dBm	-24.06 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.97600 GHz	-46.05 dBm	-21.05 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.02869 GHz	-45.82 dBm	-20.82 dB

Date: 1.MAR.2025 11:21:26

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	1.000 GHz	1.000 MHz	886.32434 MHz	-52.84 dBm	-27.84 dB
1.000 GHz	2.475 GHz	1.000 MHz	2.44274 GHz	-52.19 dBm	-27.19 dB
2.715 GHz	3.000 GHz	1.000 MHz	2.93527 GHz	-51.72 dBm	-26.72 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.34246 GHz	-41.64 dBm	-16.64 dB
7.000 GHz	10.000 GHz	1.000 MHz	9.94976 GHz	-50.59 dBm	-25.59 dB
10.000 GHz	14.000 GHz	1.000 MHz	12.67042 GHz	-49.11 dBm	-24.11 dB
14.000 GHz	18.000 GHz	1.000 MHz	15.98300 GHz	-46.02 dBm	-21.02 dB
18.000 GHz	27.000 GHz	1.000 MHz	19.06419 GHz	-45.95 dBm	-20.95 dB

Date: 1.MAR.2025 11:22:46

Frequency Stability

Test Conditions		LTE Band 41 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0011	PASS
40	Normal Voltage	0.0024	
30	Normal Voltage	0.0047	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0062	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0008	
-20	Normal Voltage	0.0019	
-30	Normal Voltage	0.0037	
20	Maximum Voltage	0.0035	
20	Normal Voltage	0.0044	
20	Battery End Point	0.0051	

Note:

1. Normal Voltage =3.91 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.5 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

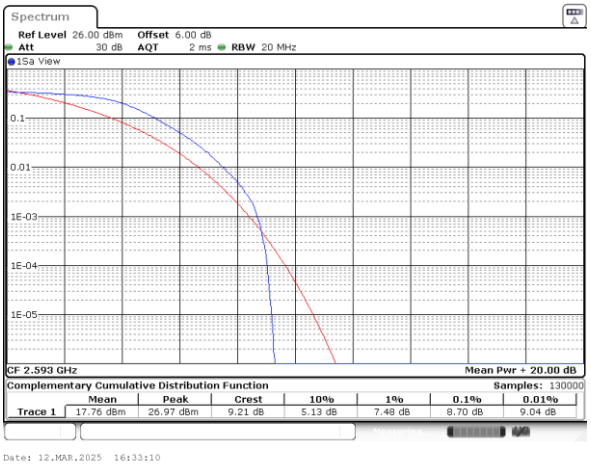
LTE Band 41 for Other PA(ANT7)

Peak-to-Average Ratio

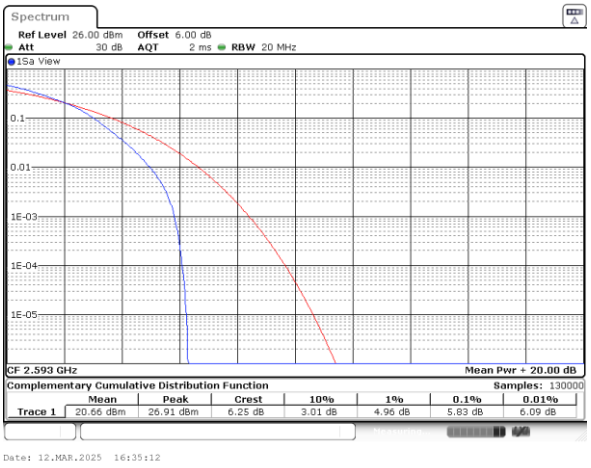
Mode	LTE Band 41 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	8.70	5.83	7.33	PASS

LTE Band 41 / 20MHz

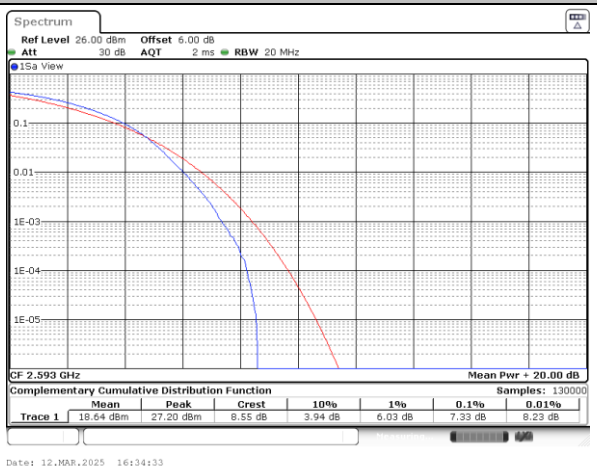
Middle Channel / Full RB / QPSK



Middle Channel / Full RB / 16QAM



Middle Channel / Full RB / 64QAM



26dB Bandwidth

Mode	LTE Band 41 : 26dB BW(MHz)	
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	4.95	4.80
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.73	9.65
BW	15MHz	
Mod.	QPSK	16QAM
Middle CH	14.42	14.27
BW	20MHz	
Mod.	QPSK	16QAM
Middle CH	18.98	18.74

LTE Band 41	
Middle Channel / 5MHz / QPSK	Middle Channel / 5MHz / 16QAM