



FCC RF Test Report

APPLICANT : CASTLES TECHNOLOGY CO., LTD.
EQUIPMENT : POS Terminal
BRAND NAME :  CASTLES TECHNOLOGY
MODEL NAME : S1MINI2
FCC ID : WIYS1MINI2001
STANDARD : 47 CFR Part 27(H), 27(M)
CLASSIFICATION : PCS Licensed Transmitter (PCB)
TEST DATE(S) : Mar. 23, 2025 ~ Apr. 11, 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.

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



Sporton International Inc. (Kunshan)

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG531202C	Rev. 01	Initial issue of report	May 15, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	-	Report Only	-
	§27.50(c)(10)	Effective Radiated Power (Band 12)(Band 17)	ERP < 3 Watt	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7) (Band 38) (Band 41)	EIRP < 2Watt		-
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	-	Report Only	-
3.7	§2.1051 §27.53(g)	Conducted Band Edge Measurement (Band 12)(Band 17)	< 43+10log ₁₀ (P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §27.53(g)	Conducted Spurious Emission (Band 12)(Band 17)	< 43+10log ₁₀ (P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log ₁₀ (P[Watts])		
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(g)	Radiated Spurious Emission (Band 12)(Band 17)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 25.09 dB at 15158.00 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< 55+10log ₁₀ (P[Watts])		

Conformity Assessment Condition:

- 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.
- 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

CASTLES TECHNOLOGY CO., LTD.

6F, NO.207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 231030, TAIWAN (R.O.C.)

1.2 Manufacturer

CASTLES TECHNOLOGY CO., LTD.

6F, NO.207-5, SEC. 3, BEIXIN RD., XINDIAN DISTRICT, NEW TAIPEI CITY 231030, TAIWAN (R.O.C.)

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	POS Terminal
Brand Name	 CASTLES TECHNOLOGY
Model Name	S1MINI2
FCC ID	WIYS1MINI2001
IMEI Code	Conducted: 350125910010942 Radiation: 350125910010900
HW Version	HW-V-1D.00
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 7 : 2500 MHz ~ 2570 MHz LTE Band 12 : 699 MHz ~ 716 MHz LTE Band 17 : 704 MHz ~ 716 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2535 MHz ~ 2655 MHz
Rx Frequency	LTE Band 7 : 2620 MHz ~ 2690 MHz LTE Band 12 : 729 MHz ~ 746 MHz LTE Band 17 : 734 MHz ~ 746 MHz LTE Band 38 : 2570 MHz ~ 2620 MHz LTE Band 41 : 2535 MHz ~ 2655 MHz
Bandwidth	LTE Band 7 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 17 : 5MHz / 10MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 7 : 22.39 dBm LTE Band 12 : 22.20 dBm LTE Band 17 : 22.17 dBm LTE Band 38 : 22.22 dBm LTE Band 41 : 22.25 dBm
Antenna Gain	LTE Band 7 : 0.4 dBi LTE Band 12 : -5.7 dBi LTE Band 17 : -5.7 dBi LTE Band 38 : 0.4 dBi LTE Band 41 : 0.4 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Modification of EUT

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



1.6 Maximum ERP/EIRP Power and Emission Designator

LTE Band 7		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2502.5 ~ 2567.5	0.1854	4M50G7D	0.1552	4M47W7D
10	2505.0 ~ 2565.0	0.1888	9M07G7D	0.1560	8M99W7D
15	2507.5 ~ 2562.5	0.1871	13M5G7D	0.1570	13M4W7D
20	2510.0 ~ 2560.0	0.1901	17M9G7D	0.1607	17M9W7D
LTE Band 12		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
1.4	699.7 ~ 715.3	0.0264	1M09G7D	0.0220	1M08W7D
3	700.5 ~ 714.5	0.0265	2M70G7D	0.0229	2M73W7D
5	701.5 ~ 713.5	0.0268	4M52G7D	0.0230	4M52W7D
10	704.0 ~ 711.0	0.0272	9M05G7D	0.0236	9M05W7D
LTE Band 17		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)
5	706.5 ~ 713.5	0.0267	4M52G7D	0.0221	4M52W7D
10	709.0 ~ 711.0	0.0270	9M05G7D	0.0224	9M05W7D
LTE Band 38		QPSK		16QAM/64QAM	
BW (MHz)	Frequency Range (MHz)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)
5	2572.5 ~ 2617.5	0.1824	4M51G7D	0.1445	4M47W7D
10	2575.0 ~ 2615.0	0.1824	9M07G7D	0.1469	8M99W7D
15	2577.5 ~ 2612.5	0.1824	13M4G7D	0.1466	13M5W7D
20	2580.0 ~ 2610.0	0.1828	17M9G7D	0.1469	17M9W7D
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	2537.5 ~ 2652.5	0.1791	4M51G7D	0.1432	4M47W7D
10	2540.0 ~ 2650.0	0.1799	9M07G7D	0.1426	8M99W7D
15	2542.5 ~ 2647.5	0.1762	13M4G7D	0.1429	13M5W7D
20	2545.0 ~ 2645.0	0.1841	17M9G7D	0.1462	17M9W7D

**Note:**

1. LTE Band 12 overlaps the entire frequency range of LTE Band 17. Therefore, the test results provided in this report covers Band 12 as well as Band 17.
2. LTE Band 41 overlaps the entire frequency range of LTE Band 38. Therefore, the test results provided in this report covers Band 41 as well as Band 38.
3. 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.
	03CH04-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacturer	Name	Version
1.	TH01-KS	SPORTON	Part2224_Ver5.0 200330	5.0
2.	03CH04-KS	AUDIX	E3	210616



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(H), 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

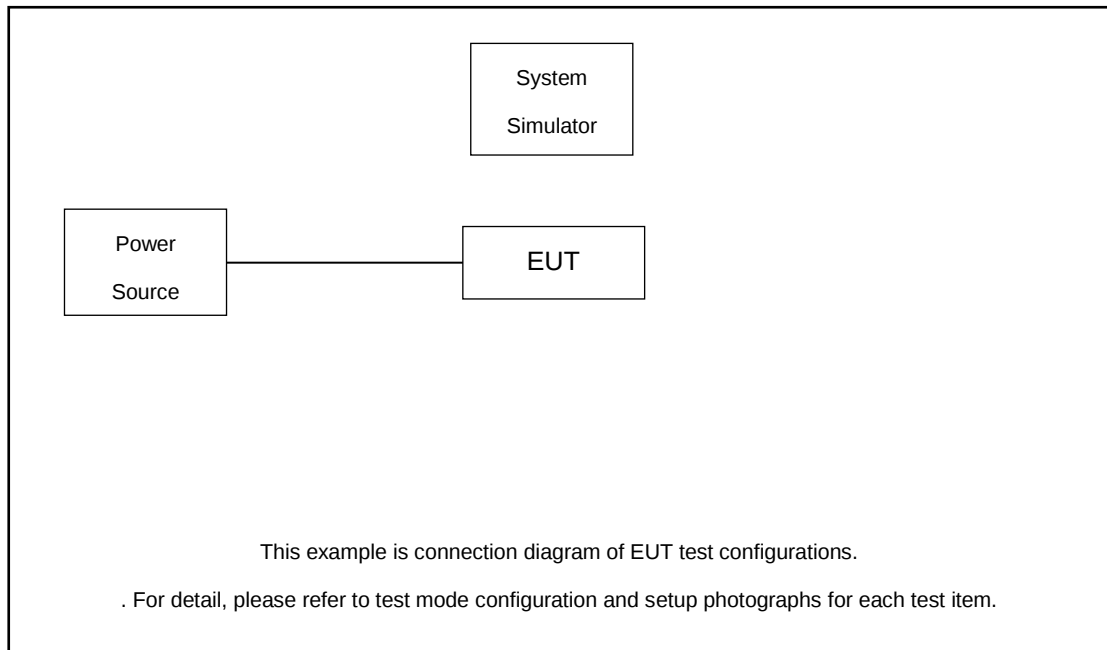
2.1 Test Mode

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.

Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	7	-	-				v	v	v	v			v		v	
	12				v	-	-	v	v	v			v		v	
	41	-	-				v	v	v	v			v		v	
26dB and 99% Bandwidth	7	-	-	v	v	v	v	v	v				v		v	
	12	v	v	v	v	-	-	v	v				v		v	
	41	-	-	v	v	v	v	v	v				v		v	
Conducted Band Edge	7	-	-	v	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	7	-	-	v	v	v	v	v			v			v	v	v
	12	v	v	v	v	-	-	v			v			v	v	v
	41	-	-	v	v	v	v	v			v			v	v	v
Frequency Stability	7	-	-		v			v					v		v	
	12				v	-	-	v					v		v	
	41	-	-		v			v					v		v	
E.R.P / E.I.R.P	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	12	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	17	-	-	v	v	-	-	v	v	v	v	v	v	v	v	v
	38	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
Radiated Spurious Emission	7	Worst Case												v	v	v
	12	Worst Case												v	v	v
	41	Worst Case												v	v	v
Note	1.	The mark "v" means that this configuration is chosen for testing														
	2.	The mark "-" means that this bandwidth is not supported.														
	3.	The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	USB Cable	N/A	N/A	N/A	N/A	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 :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)}. \\ &= 6.0 \text{ (dB)} \end{aligned}$$

2.5 Frequency List of Low/Middle/High Channels

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

LTE Band 12 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23060	23095	23130
	Frequency	704	707.5	711
5	Channel	23035	23095	23155
	Frequency	701.5	707.5	713.5
3	Channel	23025	23095	23165
	Frequency	700.5	707.5	714.5
1.4	Channel	23017	23095	23173
	Frequency	699.7	707.5	715.3

LTE Band 17 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	23780	23790	23800
	Frequency	709	710	711
5	Channel	23755	23790	23825
	Frequency	706.5	710	713.5



LTE Band 38 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	37850	38000	38150
	Frequency	2580	2595	2610
15	Channel	37825	38000	38175
	Frequency	2577.5	2595	2612.5
10	Channel	37800	38000	38200
	Frequency	2575	2595	2615
5	Channel	37775	38000	38225
	Frequency	2572.5	2595	2617.5

LTE Band 41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	40140	40640	41140
	Frequency	2545	2595	2645
15	Channel	40115	40640	41165
	Frequency	2542.5	2595	2647.5
10	Channel	40090	40640	41190
	Frequency	2540	2595	2650
5	Channel	40065	40640	41215
	Frequency	2537.5	2595	2652.5

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 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 ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/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 ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 17.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 7 and Band 38 and 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.



3.5 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 (g)

For operations in the 600MHz band and 698 -746 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53(m)(4)

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less than $43 + 10 \log (P)$ 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
1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW $\geq 1\%$ / 2% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Beyond the 1 MHz band from the band edge, RBW=1MHz was used
5. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. Checked that all the results comply with the emission limit line.

Example:

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

$$= P(W) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} = -13\text{dBm}.$$

8. For LTE Band 7, 38, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.
9. 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

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

For Band 7,38,41:

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. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[43 + 10\log(P)]$ (dB)
 $= -13$ dBm.
11. For Band 7, 38, 41
The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [55 + 10\log(P)]$ (dB)
 $= [30 + 10\log(P)]$ (dBm) - $[55 + 10\log(P)]$ (dB)
 $= -25$ dBm.

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.

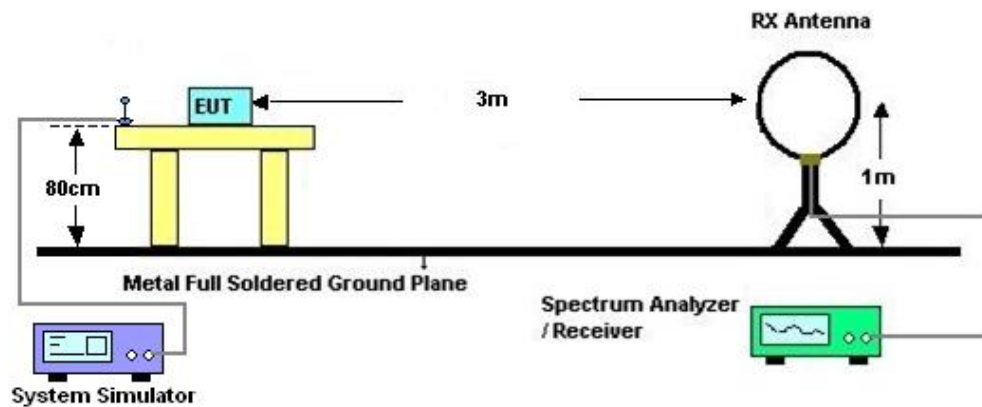
4 Radiated Test Items

4.1 Measuring Instruments

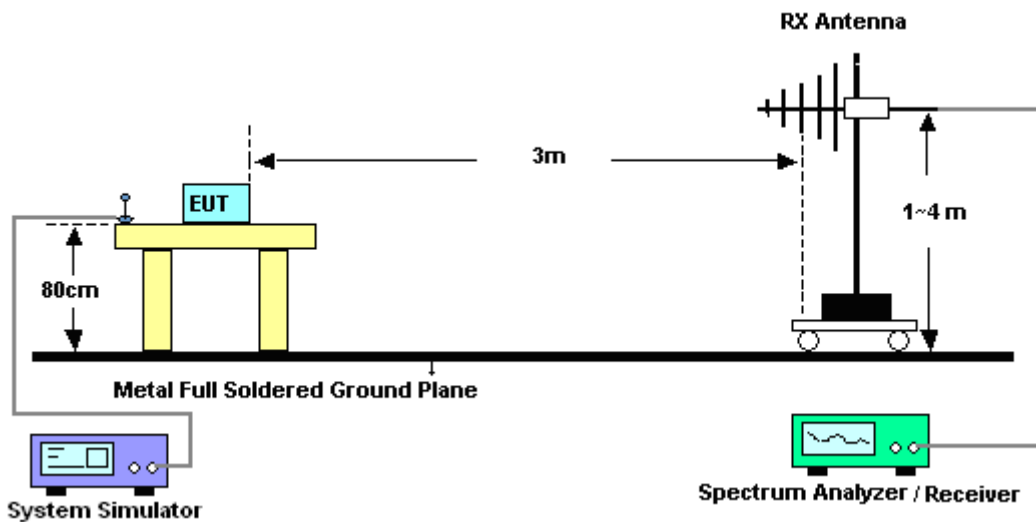
See list of measuring instruments of this test report.

4.2 Test Setup

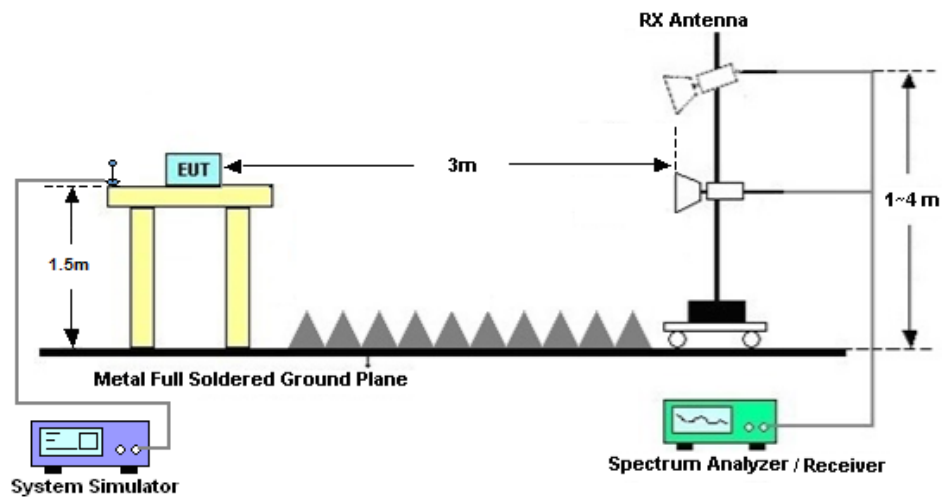
4.2.1 For radiated test below 30MHz



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

For Band 7, 38, 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. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)
 $= P(W) - [43 + 10\log(P)] \text{ (dB)}$
 $= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$
 $= -13\text{dBm}.$

13. For Band 7, 38, 41:

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



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. 23, 2025~ Mar. 31, 2025	Oct. 09, 2025	Conducted (TH01-KS)
Power divider	STI	STI08-0055	-	0.5~40GHz	NCR	Mar. 23, 2025~ Mar. 31, 2025	NCR	Conducted (TH01-KS)
Temperature & humidity chamber	Hongzhan	LP-150U	H2014011440	-40~+150°C 20%~95%RH	Jul. 04, 2024	Mar. 23, 2025~ Mar. 31, 2025	Jul. 03, 2025	Conducted (TH01-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz-44G,MAX 30dB	Oct. 11, 2024	Apr. 11, 2025	Oct. 10, 2025	Radiation (03CH04-KS)
Loop Antenna	R&S	HFH2-Z2E	101125	9kHz~30MHz	Sep. 08, 2024	Apr. 11, 2025	Sep. 07, 2025	Radiation (03CH04-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Nov. 23, 2024	Apr. 11, 2025	Nov. 22, 2025	Radiation (03CH04-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00227860	1GHz~18GHz	Aug. 16, 2024	Apr. 11, 2025	Aug. 15, 2025	Radiation (03CH04-KS)
SHF-EHF Horn	Com-power	AH-840	101116	18GHz~40GHz	Oct. 22, 2024	Apr. 11, 2025	Oct. 21, 2025	Radiation (03CH04-KS)
Amplifier	SONOMA	310N	380826	9KHz-1GHz	Jul. 03, 2024	Apr. 11, 2025	Jul. 02, 2025	Radiation (03CH04-KS)
Amplifier	EM	EM18G40G A	060852	18~40GHz	Jan. 03, 2025	Apr. 11, 2025	Jan. 02, 2026	Radiation (03CH04-KS)
high gain Amplifier	EM	EM01G18G A	060840	1Ghz-18Ghz	Oct. 09, 2024	Apr. 11, 2025	Oct. 08, 2025	Radiation (03CH04-KS)
Amplifier	EM	EM01G18G A	060892	1Ghz-18Ghz	Oct. 09, 2024	Apr. 11, 2025	Oct. 08, 2025	Radiation (03CH04-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Apr. 11, 2025	NCR	Radiation (03CH04-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Apr. 11, 2025	NCR	Radiation (03CH04-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Apr. 11, 2025	NCR	Radiation (03CH04-KS)

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	±0.50 dB
Frequency Stability	±0.04 ppm

Uncertainty of Radiated Emission Measurement (9 KHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.30 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.83 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.83 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.82 dB
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----- THE END -----



Appendix A. Test Results of Conducted Test

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

Conducted Output Power(Average power) and ERP/EIRP

LTE Band 7:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP	EIRP	EIRP
Channel				20850	21100	21350	20850	21100	21350
Frequency (MHz)				2510	2535	2560	2510	2535	2560
20	QPSK	1	0	22.23	22.39	22.33	0.1832	0.1901	0.1875
20	QPSK	1	49	22.18	22.28	22.26	0.1811	0.1854	0.1845
20	QPSK	1	99	22.10	22.31	22.26	0.1778	0.1866	0.1845
20	QPSK	50	0	21.63	21.70	21.65	0.1596	0.1622	0.1603
20	QPSK	50	24	21.57	21.64	21.50	0.1574	0.1600	0.1549
20	QPSK	50	50	21.58	21.62	21.53	0.1578	0.1592	0.1560
20	QPSK	100	0	21.61	21.65	21.57	0.1589	0.1603	0.1574
20	16QAM	1	0	21.48	21.60	21.50	0.1542	0.1585	0.1549
20	16QAM	1	49	21.53	21.55	21.54	0.1560	0.1567	0.1563
20	16QAM	1	99	21.58	21.66	21.62	0.1578	0.1607	0.1592
20	16QAM	50	0	20.64	20.68	20.62	0.1271	0.1282	0.1265
20	16QAM	50	24	20.59	20.55	20.58	0.1256	0.1245	0.1253
20	16QAM	50	50	20.55	20.56	20.51	0.1245	0.1247	0.1233
20	16QAM	100	0	20.54	20.62	20.51	0.1242	0.1265	0.1233
20	64QAM	1	0	20.44	20.55	20.51	0.1213	0.1245	0.1233
20	64QAM	1	49	20.53	20.64	20.54	0.1239	0.1271	0.1242
20	64QAM	1	99	20.52	20.61	20.55	0.1236	0.1262	0.1245
20	64QAM	50	0	19.62	19.70	19.62	0.1005	0.1023	0.1005
20	64QAM	50	24	19.54	19.67	19.52	0.0986	0.1016	0.0982
20	64QAM	50	50	19.58	19.59	19.49	0.0995	0.0998	0.0975
20	64QAM	100	0	19.49	19.62	19.53	0.0975	0.1005	0.0984
Channel				20825	21100	21375	20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5	2507.5	2535	2562.5
15	QPSK	1	0	22.15	22.32	22.27	0.1799	0.1871	0.1849
15	QPSK	1	37	22.13	22.24	22.22	0.1791	0.1837	0.1828
15	QPSK	1	74	22.01	22.16	22.11	0.1742	0.1803	0.1782
15	QPSK	36	0	21.49	21.62	21.56	0.1545	0.1592	0.1570
15	QPSK	36	20	21.46	21.60	21.46	0.1535	0.1585	0.1535
15	QPSK	36	39	21.46	21.58	21.49	0.1535	0.1578	0.1545
15	QPSK	75	0	21.48	21.51	21.50	0.1542	0.1552	0.1549
15	16QAM	1	0	21.44	21.54	21.38	0.1528	0.1563	0.1507
15	16QAM	1	37	21.42	21.47	21.43	0.1521	0.1538	0.1524
15	16QAM	1	74	21.52	21.56	21.50	0.1556	0.1570	0.1549
15	16QAM	36	0	20.60	20.57	20.52	0.1259	0.1250	0.1236
15	16QAM	36	20	20.53	20.41	20.44	0.1239	0.1205	0.1213



15	16QAM	36	39	20.47	20.51	20.36	0.1222	0.1233	0.1191
15	16QAM	75	0	20.46	20.54	20.47	0.1219	0.1242	0.1222
15	64QAM	1	0	20.31	20.44	20.41	0.1178	0.1213	0.1205
15	64QAM	1	37	20.41	20.52	20.40	0.1205	0.1236	0.1202
15	64QAM	1	74	20.46	20.57	20.45	0.1219	0.1250	0.1216
15	64QAM	36	0	19.53	19.65	19.51	0.0984	0.1012	0.0979
15	64QAM	36	20	19.48	19.52	19.48	0.0973	0.0982	0.0973
15	64QAM	36	39	19.51	19.54	19.41	0.0979	0.0986	0.0957
15	64QAM	75	0	19.44	19.50	19.43	0.0964	0.0977	0.0962
Channel				20800	21100	21400	20800	21100	21400
Frequency (MHz)				2505	2535	2565	2505	2535	2565
10	QPSK	1	0	22.18	22.36	22.26	0.1811	0.1888	0.1845
10	QPSK	1	25	22.06	22.17	22.11	0.1762	0.1807	0.1782
10	QPSK	1	49	22.03	22.19	22.18	0.1750	0.1816	0.1811
10	QPSK	25	0	21.51	21.58	21.56	0.1552	0.1578	0.1570
10	QPSK	25	12	21.50	21.59	21.43	0.1549	0.1581	0.1524
10	QPSK	25	25	21.46	21.52	21.42	0.1535	0.1556	0.1521
10	QPSK	50	0	21.57	21.52	21.45	0.1574	0.1556	0.1531
10	16QAM	1	0	21.34	21.53	21.36	0.1493	0.1560	0.1500
10	16QAM	1	25	21.39	21.46	21.42	0.1510	0.1535	0.1521
10	16QAM	1	49	21.46	21.51	21.49	0.1535	0.1552	0.1545
10	16QAM	25	0	20.60	20.58	20.59	0.1259	0.1253	0.1256
10	16QAM	25	12	20.48	20.47	20.47	0.1225	0.1222	0.1222
10	16QAM	25	25	20.47	20.49	20.44	0.1222	0.1227	0.1213
10	16QAM	50	0	20.48	20.57	20.37	0.1225	0.1250	0.1194
10	64QAM	1	0	20.32	20.46	20.36	0.1180	0.1219	0.1191
10	64QAM	1	25	20.47	20.59	20.48	0.1222	0.1256	0.1225
10	64QAM	1	49	20.43	20.58	20.51	0.1211	0.1253	0.1233
10	64QAM	25	0	19.54	19.60	19.47	0.0986	0.1000	0.0971
10	64QAM	25	12	19.45	19.59	19.38	0.0966	0.0998	0.0951
10	64QAM	25	25	19.45	19.54	19.39	0.0966	0.0986	0.0953
10	64QAM	50	0	19.41	19.52	19.41	0.0957	0.0982	0.0957
Channel				20775	21100	21425	20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5	2502.5	2535	2567.5
5	QPSK	1	0	22.17	22.28	22.25	0.1807	0.1854	0.1841
5	QPSK	1	12	22.07	22.18	22.16	0.1766	0.1811	0.1803
5	QPSK	1	24	21.99	22.18	22.16	0.1734	0.1811	0.1803
5	QPSK	12	0	21.56	21.55	21.51	0.1570	0.1567	0.1552
5	QPSK	12	7	21.53	21.51	21.43	0.1560	0.1552	0.1524
5	QPSK	12	13	21.54	21.51	21.42	0.1563	0.1552	0.1521
5	QPSK	25	0	21.53	21.61	21.54	0.1560	0.1589	0.1563
5	16QAM	1	0	21.33	21.51	21.35	0.1489	0.1552	0.1496
5	16QAM	1	12	21.47	21.44	21.48	0.1538	0.1528	0.1542
5	16QAM	1	24	21.43	21.51	21.50	0.1524	0.1552	0.1549
5	16QAM	12	0	20.53	20.61	20.54	0.1239	0.1262	0.1242
5	16QAM	12	7	20.50	20.47	20.45	0.1230	0.1222	0.1216
5	16QAM	12	13	20.43	20.41	20.46	0.1211	0.1205	0.1219
5	16QAM	25	0	20.43	20.55	20.43	0.1211	0.1245	0.1211
5	64QAM	1	0	20.30	20.47	20.48	0.1175	0.1222	0.1225
5	64QAM	1	12	20.42	20.56	20.51	0.1208	0.1247	0.1233



5	64QAM	1	24	20.40	20.49	20.49	0.1202	0.1227	0.1227
5	64QAM	12	0	19.55	19.60	19.49	0.0989	0.1000	0.0975
5	64QAM	12	7	19.50	19.62	19.39	0.0977	0.1005	0.0953
5	64QAM	12	13	19.43	19.55	19.44	0.0962	0.0989	0.0964
5	64QAM	25	0	19.35	19.58	19.49	0.0944	0.0995	0.0975

LTE Band 12:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP	ERP	ERP
Channel				23060	23095	23130	23060	23095	23130
Frequency (MHz)				704	707.5	711	704	707.5	711
10	QPSK	1	0	22.15	22.20	22.17	0.0269	0.0272	0.0270
10	QPSK	1	25	22.05	22.16	22.13	0.0263	0.0270	0.0268
10	QPSK	1	49	22.05	22.09	22.13	0.0263	0.0265	0.0268
10	QPSK	25	0	21.32	21.38	21.27	0.0222	0.0225	0.0220
10	QPSK	25	12	21.19	21.29	21.19	0.0216	0.0221	0.0216
10	QPSK	25	25	21.27	21.31	21.21	0.0220	0.0222	0.0217
10	QPSK	50	0	21.29	21.33	21.28	0.0221	0.0223	0.0220
10	16QAM	1	0	21.45	21.57	21.43	0.0229	0.0236	0.0228
10	16QAM	1	25	21.24	21.34	21.23	0.0218	0.0223	0.0218
10	16QAM	1	49	21.26	21.23	21.13	0.0219	0.0218	0.0213
10	16QAM	25	0	20.30	20.35	20.21	0.0176	0.0178	0.0172
10	16QAM	25	12	20.17	20.25	20.17	0.0171	0.0174	0.0171
10	16QAM	25	25	20.17	20.27	20.17	0.0171	0.0175	0.0171
10	16QAM	50	0	20.27	20.24	20.14	0.0175	0.0173	0.0169
10	64QAM	1	0	20.34	20.39	20.35	0.0177	0.0179	0.0178
10	64QAM	1	25	20.21	20.25	20.09	0.0172	0.0174	0.0167
10	64QAM	1	49	20.23	20.30	20.18	0.0173	0.0176	0.0171
10	64QAM	25	0	19.21	19.34	19.30	0.0137	0.0141	0.0140
10	64QAM	25	12	19.17	19.20	19.26	0.0136	0.0136	0.0138
10	64QAM	25	25	19.14	19.26	19.16	0.0135	0.0138	0.0135
10	64QAM	50	0	19.08	19.23	19.21	0.0133	0.0137	0.0137
Channel				23035	23095	23155	23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5	701.5	707.5	713.5
5	QPSK	1	0	22.10	22.13	22.06	0.0266	0.0268	0.0264
5	QPSK	1	12	21.95	22.02	22.06	0.0257	0.0261	0.0264
5	QPSK	1	24	21.99	21.98	22.08	0.0259	0.0259	0.0265
5	QPSK	12	0	21.19	21.32	21.16	0.0216	0.0222	0.0214
5	QPSK	12	7	21.07	21.25	21.06	0.0210	0.0219	0.0209
5	QPSK	12	13	21.15	21.22	21.14	0.0214	0.0217	0.0213
5	QPSK	25	0	21.26	21.25	21.17	0.0219	0.0219	0.0215
5	16QAM	1	0	21.32	21.47	21.30	0.0222	0.0230	0.0221
5	16QAM	1	12	21.10	21.29	21.10	0.0211	0.0221	0.0211
5	16QAM	1	24	21.19	21.17	21.07	0.0216	0.0215	0.0210
5	16QAM	12	0	20.23	20.21	20.17	0.0173	0.0172	0.0171
5	16QAM	12	7	20.06	20.13	20.07	0.0166	0.0169	0.0167
5	16QAM	12	13	20.13	20.13	20.03	0.0169	0.0169	0.0165
5	16QAM	25	0	20.17	20.11	20.10	0.0171	0.0168	0.0168
5	64QAM	1	0	20.29	20.24	20.23	0.0175	0.0173	0.0173



5	64QAM	1	12	20.17	20.17	19.99	0.0171	0.0171	0.0164
5	64QAM	1	24	20.12	20.18	20.15	0.0169	0.0171	0.0170
5	64QAM	12	0	19.16	19.20	19.19	0.0135	0.0136	0.0136
5	64QAM	12	7	19.06	19.08	19.20	0.0132	0.0133	0.0136
5	64QAM	12	13	19.10	19.19	19.08	0.0133	0.0136	0.0133
5	64QAM	25	0	18.93	19.13	19.14	0.0128	0.0134	0.0135
Channel				23025	23095	23165	23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5	700.5	707.5	714.5
3	QPSK	1	0	22.02	22.05	22.07	0.0261	0.0263	0.0264
3	QPSK	1	8	21.96	22.08	22.03	0.0258	0.0265	0.0262
3	QPSK	1	14	21.96	22.00	22.09	0.0258	0.0260	0.0265
3	QPSK	8	0	21.21	21.28	21.22	0.0217	0.0220	0.0217
3	QPSK	8	4	21.04	21.24	21.08	0.0208	0.0218	0.0210
3	QPSK	8	7	21.17	21.18	21.14	0.0215	0.0215	0.0213
3	QPSK	15	0	21.16	21.20	21.23	0.0214	0.0216	0.0218
3	16QAM	1	0	21.35	21.44	21.38	0.0224	0.0229	0.0225
3	16QAM	1	8	21.20	21.25	21.11	0.0216	0.0219	0.0212
3	16QAM	1	14	21.12	21.12	21.09	0.0212	0.0212	0.0211
3	16QAM	8	0	20.26	20.23	20.13	0.0174	0.0173	0.0169
3	16QAM	8	4	20.12	20.11	20.10	0.0169	0.0168	0.0168
3	16QAM	8	7	20.06	20.21	20.02	0.0166	0.0172	0.0165
3	16QAM	15	0	20.18	20.11	20.06	0.0171	0.0168	0.0166
3	64QAM	1	0	20.27	20.25	20.26	0.0175	0.0174	0.0174
3	64QAM	1	8	20.07	20.14	20.01	0.0167	0.0169	0.0164
3	64QAM	1	14	20.18	20.20	20.04	0.0171	0.0172	0.0166
3	64QAM	8	0	19.07	19.29	19.18	0.0132	0.0139	0.0136
3	64QAM	8	4	19.13	19.07	19.21	0.0134	0.0132	0.0137
3	64QAM	8	7	19.08	19.16	19.02	0.0133	0.0135	0.0131
3	64QAM	15	0	19.05	19.10	19.15	0.0132	0.0133	0.0135
Channel				23017	23095	23173	23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3	699.7	707.5	715.3
1.4	QPSK	1	0	21.88	21.94	22.06	0.0253	0.0256	0.0264
1.4	QPSK	1	3	22.00	21.91	21.78	0.0260	0.0255	0.0247
1.4	QPSK	1	5	21.76	21.84	21.87	0.0246	0.0251	0.0252
1.4	QPSK	3	0	22.02	21.95	22.02	0.0261	0.0257	0.0261
1.4	QPSK	3	1	21.86	21.95	21.85	0.0252	0.0257	0.0251
1.4	QPSK	3	3	21.75	21.80	21.85	0.0245	0.0248	0.0251
1.4	QPSK	6	0	21.22	21.28	21.26	0.0217	0.0220	0.0219
1.4	16QAM	1	0	21.14	21.18	21.18	0.0213	0.0215	0.0215
1.4	16QAM	1	3	20.93	21.13	21.20	0.0203	0.0213	0.0216
1.4	16QAM	1	5	21.14	21.28	21.08	0.0213	0.0220	0.0210
1.4	16QAM	3	0	21.04	21.13	21.13	0.0208	0.0213	0.0213
1.4	16QAM	3	1	20.99	21.25	21.11	0.0206	0.0219	0.0212
1.4	16QAM	3	3	21.11	21.14	21.10	0.0212	0.0213	0.0211
1.4	16QAM	6	0	20.30	20.33	20.17	0.0176	0.0177	0.0171
1.4	64QAM	1	0	20.04	20.06	20.04	0.0166	0.0166	0.0166
1.4	64QAM	1	3	20.15	20.20	19.99	0.0170	0.0172	0.0164
1.4	64QAM	1	5	20.06	20.10	20.04	0.0166	0.0168	0.0166
1.4	64QAM	3	0	20.04	20.17	19.93	0.0166	0.0171	0.0161
1.4	64QAM	3	1	19.88	20.03	19.96	0.0160	0.0165	0.0163



1.4	64QAM	3	3	19.90	19.99	19.89	0.0160	0.0164	0.0160
1.4	64QAM	6	0	19.08	19.26	19.06	0.0133	0.0138	0.0132

LTE Band 17:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	ERP	ERP	ERP
Channel				23780	23790	23800	23730.85	23790	23849.15
Frequency (MHz)				709	710	711	704.085	710	715.915
10	QPSK	1	0	22.12	22.17	22.16	0.0267	0.0270	0.0270
10	QPSK	1	25	22.00	22.05	22.02	0.0260	0.0263	0.0261
10	QPSK	1	49	22.00	22.08	22.04	0.0260	0.0265	0.0262
10	QPSK	25	0	21.27	21.39	21.30	0.0220	0.0226	0.0221
10	QPSK	25	12	21.19	21.29	21.24	0.0216	0.0221	0.0218
10	QPSK	25	25	21.21	21.35	21.23	0.0217	0.0224	0.0218
10	QPSK	50	0	21.21	21.36	21.25	0.0217	0.0224	0.0219
10	16QAM	1	0	21.33	21.36	21.33	0.0223	0.0224	0.0223
10	16QAM	1	25	21.21	21.30	21.26	0.0217	0.0221	0.0219
10	16QAM	1	49	21.21	21.31	21.21	0.0217	0.0222	0.0217
10	16QAM	25	0	20.34	20.41	20.31	0.0177	0.0180	0.0176
10	16QAM	25	12	20.23	20.35	20.25	0.0173	0.0178	0.0174
10	16QAM	25	25	20.23	20.35	20.17	0.0173	0.0178	0.0171
10	16QAM	50	0	20.19	20.26	20.22	0.0171	0.0174	0.0173
10	64QAM	1	0	20.29	20.39	20.34	0.0175	0.0179	0.0177
10	64QAM	1	25	20.22	20.33	20.30	0.0173	0.0177	0.0176
10	64QAM	1	49	20.22	20.29	20.25	0.0173	0.0175	0.0174
10	64QAM	25	0	19.38	19.42	19.36	0.0142	0.0144	0.0142
10	64QAM	25	12	19.31	19.37	19.27	0.0140	0.0142	0.0139
10	64QAM	25	25	19.29	19.38	19.31	0.0139	0.0142	0.0140
10	64QAM	50	0	19.32	19.30	19.29	0.0140	0.0140	0.0139
Channel				23755	23790	23825	23731.15	23790	23848.85
Frequency (MHz)				706.5	710	713.5	704.115	710	715.885
5	QPSK	1	0	22.01	22.02	22.12	0.0261	0.0261	0.0267
5	QPSK	1	12	21.89	21.92	21.99	0.0254	0.0255	0.0259
5	QPSK	1	24	21.94	21.95	21.95	0.0256	0.0257	0.0257
5	QPSK	12	0	21.16	21.31	21.26	0.0214	0.0222	0.0219
5	QPSK	12	7	21.09	21.22	21.13	0.0211	0.0217	0.0213
5	QPSK	12	13	21.09	21.29	21.09	0.0211	0.0221	0.0211
5	QPSK	25	0	21.14	21.26	21.19	0.0213	0.0219	0.0216
5	16QAM	1	0	21.19	21.29	21.24	0.0216	0.0221	0.0218
5	16QAM	1	12	21.08	21.26	21.21	0.0210	0.0219	0.0217
5	16QAM	1	24	21.16	21.28	21.13	0.0214	0.0220	0.0213
5	16QAM	12	0	20.29	20.29	20.23	0.0175	0.0175	0.0173
5	16QAM	12	7	20.09	20.21	20.19	0.0167	0.0172	0.0171
5	16QAM	12	13	20.18	20.26	20.12	0.0171	0.0174	0.0169
5	16QAM	25	0	20.15	20.17	20.10	0.0170	0.0171	0.0168
5	64QAM	1	0	20.21	20.36	20.26	0.0172	0.0178	0.0174
5	64QAM	1	12	20.09	20.19	20.22	0.0167	0.0171	0.0173
5	64QAM	1	24	20.11	20.21	20.17	0.0168	0.0172	0.0171
5	64QAM	12	0	19.29	19.28	19.27	0.0139	0.0139	0.0139



5	64QAM	12	7	19.24	19.31	19.22	0.0138	0.0140	0.0137
5	64QAM	12	13	19.22	19.31	19.22	0.0137	0.0140	0.0137
5	64QAM	25	0	19.18	19.18	19.21	0.0136	0.0136	0.0137

LTE Band 38:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.	EIRP	EIRP	EIRP
Channel				37850	38000	38150	37850	38000	38150
Frequency (MHz)				2580	2595	2610	2580	2595	2610
20	QPSK	1	0	22.19	22.22	22.21	0.1816	0.1828	0.1824
20	QPSK	1	49	22.14	22.19	22.17	0.1795	0.1816	0.1807
20	QPSK	1	99	22.11	22.18	22.18	0.1782	0.1811	0.1811
20	QPSK	50	0	21.36	21.44	21.40	0.1500	0.1528	0.1514
20	QPSK	50	24	21.34	21.43	21.36	0.1493	0.1524	0.1500
20	QPSK	50	50	21.37	21.38	21.37	0.1503	0.1507	0.1503
20	QPSK	100	0	21.41	21.49	21.37	0.1517	0.1545	0.1503
20	16QAM	1	0	21.22	21.27	21.19	0.1452	0.1469	0.1442
20	16QAM	1	49	21.17	21.22	21.20	0.1435	0.1452	0.1445
20	16QAM	1	99	21.12	21.16	21.24	0.1419	0.1432	0.1459
20	16QAM	50	0	20.43	20.51	20.50	0.1211	0.1233	0.1230
20	16QAM	50	24	20.39	20.53	20.43	0.1199	0.1239	0.1211
20	16QAM	50	50	20.36	20.54	20.50	0.1191	0.1242	0.1230
20	16QAM	100	0	20.40	20.52	20.43	0.1202	0.1236	0.1211
20	64QAM	1	0	20.24	20.29	20.21	0.1159	0.1172	0.1151
20	64QAM	1	49	20.09	20.19	20.14	0.1119	0.1146	0.1132
20	64QAM	1	99	20.06	20.18	20.21	0.1112	0.1143	0.1151
20	64QAM	50	0	19.51	19.56	19.52	0.0979	0.0991	0.0982
20	64QAM	50	24	19.56	19.58	19.56	0.0991	0.0995	0.0991
20	64QAM	50	50	19.56	19.52	19.63	0.0991	0.0982	0.1007
20	64QAM	100	0	19.48	19.54	19.53	0.0973	0.0986	0.0984
Channel				37825	38000	38175	37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5	2577.5	2595	2612.5
15	QPSK	1	0	22.19	22.19	22.18	0.1816	0.1816	0.1811
15	QPSK	1	37	22.14	22.16	22.12	0.1795	0.1803	0.1786
15	QPSK	1	74	22.11	22.21	22.16	0.1782	0.1824	0.1803
15	QPSK	36	0	21.36	21.39	21.32	0.1500	0.1510	0.1486
15	QPSK	36	20	21.27	21.44	21.27	0.1469	0.1528	0.1469
15	QPSK	36	39	21.39	21.39	21.35	0.1510	0.1510	0.1496
15	QPSK	75	0	21.39	21.44	21.35	0.1510	0.1528	0.1496
15	16QAM	1	0	21.23	21.26	21.19	0.1455	0.1466	0.1442
15	16QAM	1	37	21.20	21.25	21.20	0.1445	0.1462	0.1445
15	16QAM	1	74	21.12	21.13	21.15	0.1419	0.1422	0.1429
15	16QAM	36	0	20.44	20.49	20.46	0.1213	0.1227	0.1219
15	16QAM	36	20	20.34	20.46	20.36	0.1186	0.1219	0.1191
15	16QAM	36	39	20.34	20.57	20.46	0.1186	0.1250	0.1219
15	16QAM	75	0	20.31	20.48	20.42	0.1178	0.1225	0.1208
15	64QAM	1	0	20.22	20.31	20.17	0.1153	0.1178	0.1140
15	64QAM	1	37	20.04	20.21	20.15	0.1107	0.1151	0.1135
15	64QAM	1	74	20.01	20.14	20.21	0.1099	0.1132	0.1151



15	64QAM	36	0	19.47	19.56	19.43	0.0971	0.0991	0.0962
15	64QAM	36	20	19.51	19.55	19.49	0.0979	0.0989	0.0975
15	64QAM	36	39	19.51	19.50	19.58	0.0979	0.0977	0.0995
15	64QAM	75	0	19.42	19.50	19.45	0.0959	0.0977	0.0966
Channel				37800	38000	38200	37800	38000	38200
Frequency (MHz)				2575	2595	2615	2575	2595	2615
10	QPSK	1	0	22.18	22.20	22.15	0.1811	0.1820	0.1799
10	QPSK	1	25	22.08	22.20	22.14	0.1770	0.1820	0.1795
10	QPSK	1	49	22.03	22.18	22.21	0.1750	0.1811	0.1824
10	QPSK	25	0	21.29	21.45	21.34	0.1476	0.1531	0.1493
10	QPSK	25	12	21.31	21.38	21.34	0.1483	0.1507	0.1493
10	QPSK	25	25	21.33	21.36	21.34	0.1489	0.1500	0.1493
10	QPSK	50	0	21.34	21.48	21.38	0.1493	0.1542	0.1507
10	16QAM	1	0	21.14	21.25	21.21	0.1426	0.1462	0.1449
10	16QAM	1	25	21.15	21.19	21.19	0.1429	0.1442	0.1442
10	16QAM	1	49	21.03	21.10	21.27	0.1390	0.1413	0.1469
10	16QAM	25	0	20.37	20.52	20.44	0.1194	0.1236	0.1213
10	16QAM	25	12	20.31	20.53	20.35	0.1178	0.1239	0.1189
10	16QAM	25	25	20.37	20.51	20.52	0.1194	0.1233	0.1236
10	16QAM	50	0	20.39	20.47	20.44	0.1199	0.1222	0.1213
10	64QAM	1	0	20.19	20.29	20.22	0.1146	0.1172	0.1153
10	64QAM	1	25	20.11	20.11	20.08	0.1125	0.1125	0.1117
10	64QAM	1	49	20.08	20.13	20.15	0.1117	0.1130	0.1135
10	64QAM	25	0	19.48	19.56	19.44	0.0973	0.0991	0.0964
10	64QAM	25	12	19.53	19.54	19.52	0.0984	0.0986	0.0982
10	64QAM	25	25	19.58	19.47	19.61	0.0995	0.0971	0.1002
10	64QAM	50	0	19.40	19.52	19.45	0.0955	0.0982	0.0966
Channel				37775	38000	38225	37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5	2572.5	2595	2617.5
5	QPSK	1	0	22.17	22.21	22.13	0.1807	0.1824	0.1791
5	QPSK	1	12	22.14	22.21	22.14	0.1795	0.1824	0.1795
5	QPSK	1	24	22.12	22.14	22.10	0.1786	0.1795	0.1778
5	QPSK	12	0	21.29	21.38	21.37	0.1476	0.1507	0.1503
5	QPSK	12	7	21.30	21.36	21.27	0.1479	0.1500	0.1469
5	QPSK	12	13	21.39	21.31	21.35	0.1510	0.1483	0.1496
5	QPSK	25	0	21.37	21.49	21.38	0.1503	0.1545	0.1507
5	16QAM	1	0	21.16	21.20	21.10	0.1432	0.1445	0.1413
5	16QAM	1	12	21.16	21.16	21.18	0.1432	0.1432	0.1439
5	16QAM	1	24	21.04	21.08	21.18	0.1393	0.1406	0.1439
5	16QAM	12	0	20.41	20.46	20.45	0.1205	0.1219	0.1216
5	16QAM	12	7	20.39	20.53	20.37	0.1199	0.1239	0.1194
5	16QAM	12	13	20.36	20.52	20.44	0.1191	0.1236	0.1213
5	16QAM	25	0	20.30	20.48	20.39	0.1175	0.1225	0.1199
5	64QAM	1	0	20.15	20.24	20.22	0.1135	0.1159	0.1153
5	64QAM	1	12	20.09	20.17	20.08	0.1119	0.1140	0.1117
5	64QAM	1	24	20.04	20.14	20.19	0.1107	0.1132	0.1146
5	64QAM	12	0	19.43	19.52	19.49	0.0962	0.0982	0.0975
5	64QAM	12	7	19.48	19.59	19.51	0.0973	0.0998	0.0979
5	64QAM	12	13	19.57	19.50	19.56	0.0993	0.0977	0.0991
5	64QAM	25	0	19.49	19.51	19.44	0.0975	0.0979	0.0964



LTE Band 41:

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Low Ch. / Freq.	Power Low Middle Ch. / Freq.	EIRP	EIRP	EIRP
Channel				40140	40640	41140	40140	40640	41140
Frequency (MHz)				2545	2595	2645	2545	2595	2645
20	QPSK	1	0	22.06	22.25	22.03	0.1762	0.1841	0.1750
20	QPSK	1	49	21.95	22.03	21.90	0.1718	0.1750	0.1698
20	QPSK	1	99	21.94	21.96	21.91	0.1714	0.1722	0.1702
20	QPSK	50	0	21.37	21.38	21.31	0.1503	0.1507	0.1483
20	QPSK	50	24	21.26	21.27	21.17	0.1466	0.1469	0.1435
20	QPSK	50	50	21.32	21.25	21.20	0.1486	0.1462	0.1445
20	QPSK	100	0	21.31	21.32	21.35	0.1483	0.1486	0.1496
20	16QAM	1	0	21.22	21.25	21.18	0.1452	0.1462	0.1439
20	16QAM	1	49	21.09	21.08	21.12	0.1409	0.1406	0.1419
20	16QAM	1	99	21.13	21.08	21.08	0.1422	0.1406	0.1406
20	16QAM	50	0	20.43	20.42	20.48	0.1211	0.1208	0.1225
20	16QAM	50	24	20.34	20.32	20.43	0.1186	0.1180	0.1211
20	16QAM	50	50	20.28	20.18	20.39	0.1169	0.1143	0.1199
20	16QAM	100	0	20.30	20.19	20.39	0.1175	0.1146	0.1199
20	64QAM	1	0	20.19	20.10	20.15	0.1146	0.1122	0.1135
20	64QAM	1	49	20.09	20.09	20.11	0.1119	0.1119	0.1125
20	64QAM	1	99	20.12	20.07	20.04	0.1127	0.1114	0.1107
20	64QAM	50	0	19.47	19.42	19.41	0.0971	0.0959	0.0957
20	64QAM	50	24	19.39	19.32	19.33	0.0953	0.0938	0.0940
20	64QAM	50	50	19.40	19.41	19.33	0.0955	0.0957	0.0940
20	64QAM	100	0	19.32	19.30	19.29	0.0938	0.0933	0.0931
Channel				40115	40640	41165	40115	40640	41165
Frequency (MHz)				2542.5	2595	2647.5	2542.5	2595	2647.5
15	QPSK	1	0	21.95	22.06	21.96	0.1718	0.1762	0.1722
15	QPSK	1	37	21.85	21.96	21.78	0.1679	0.1722	0.1652
15	QPSK	1	74	21.88	21.93	21.81	0.1690	0.1710	0.1663
15	QPSK	36	0	21.25	21.34	21.25	0.1462	0.1493	0.1462
15	QPSK	36	20	21.19	21.28	21.07	0.1442	0.1472	0.1403
15	QPSK	36	39	21.18	21.16	21.11	0.1439	0.1432	0.1416
15	QPSK	75	0	21.18	21.26	21.22	0.1439	0.1466	0.1452
15	16QAM	1	0	21.09	21.15	21.07	0.1409	0.1429	0.1403
15	16QAM	1	37	20.98	20.94	21.01	0.1374	0.1361	0.1384
15	16QAM	1	74	21.10	21.08	21.00	0.1413	0.1406	0.1380
15	16QAM	36	0	20.32	20.31	20.42	0.1180	0.1178	0.1208
15	16QAM	36	20	20.20	20.12	20.35	0.1148	0.1127	0.1189
15	16QAM	36	39	20.15	20.08	20.36	0.1135	0.1117	0.1191
15	16QAM	75	0	20.25	20.10	20.34	0.1161	0.1122	0.1186
15	64QAM	1	0	20.06	20.01	20.08	0.1112	0.1099	0.1117
15	64QAM	1	37	20.02	20.08	20.07	0.1102	0.1117	0.1114
15	64QAM	1	74	20.00	19.96	19.90	0.1096	0.1086	0.1072
15	64QAM	36	0	19.34	19.31	19.32	0.0942	0.0935	0.0938
15	64QAM	36	20	19.30	19.28	19.28	0.0933	0.0929	0.0929
15	64QAM	36	39	19.30	19.24	19.24	0.0933	0.0920	0.0920
15	64QAM	75	0	19.26	19.21	19.22	0.0925	0.0914	0.0916



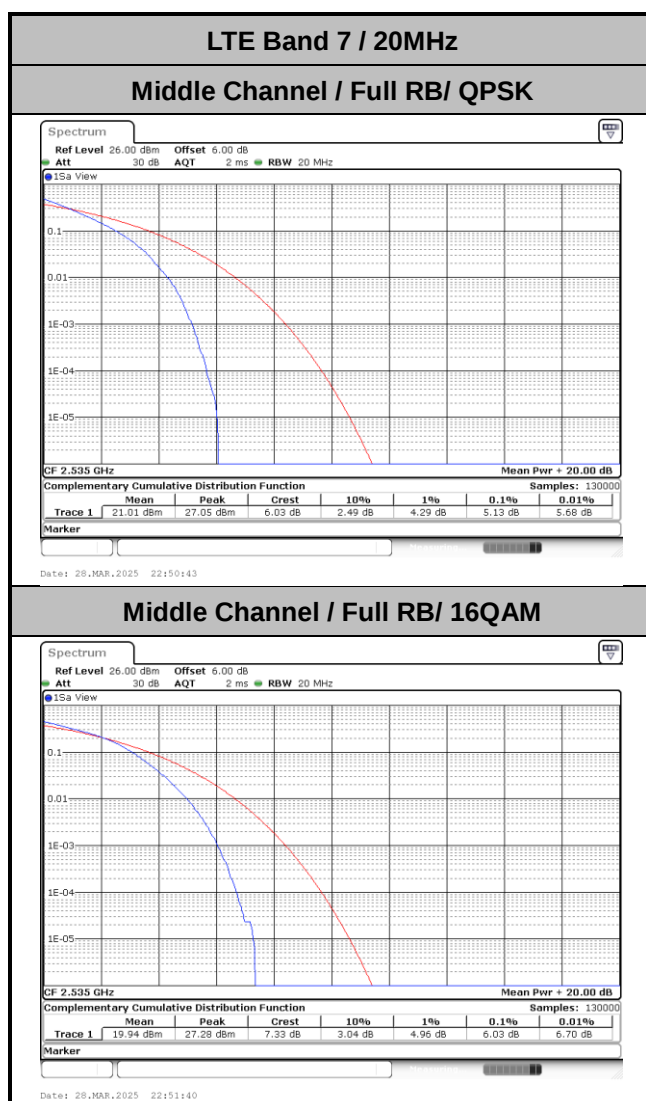
Channel				40090	40640	41190	40090	40640	41190
Frequency (MHz)				2540	2595	2650	2540	2595	2650
10	QPSK	1	0	22.01	22.15	21.93	0.1742	0.1799	0.1710
10	QPSK	1	25	21.88	21.89	21.80	0.1690	0.1694	0.1660
10	QPSK	1	49	21.87	21.92	21.79	0.1687	0.1706	0.1656
10	QPSK	25	0	21.30	21.39	21.27	0.1479	0.1510	0.1469
10	QPSK	25	12	21.19	21.36	21.03	0.1442	0.1500	0.1390
10	QPSK	25	25	21.21	21.17	21.14	0.1449	0.1435	0.1426
10	QPSK	50	0	21.21	21.26	21.25	0.1449	0.1466	0.1462
10	16QAM	1	0	21.14	21.08	21.14	0.1426	0.1406	0.1426
10	16QAM	1	25	21.05	21.06	21.02	0.1396	0.1400	0.1387
10	16QAM	1	49	21.03	21.08	21.00	0.1390	0.1406	0.1380
10	16QAM	25	0	20.36	20.36	20.34	0.1191	0.1191	0.1186
10	16QAM	25	12	20.31	20.35	20.36	0.1178	0.1189	0.1191
10	16QAM	25	25	20.19	20.27	20.29	0.1146	0.1167	0.1172
10	16QAM	50	0	20.23	20.31	20.36	0.1156	0.1178	0.1191
10	64QAM	1	0	20.13	20.17	20.07	0.1130	0.1140	0.1114
10	64QAM	1	25	19.97	19.75	20.01	0.1089	0.1035	0.1099
10	64QAM	1	49	19.98	19.95	19.94	0.1091	0.1084	0.1081
10	64QAM	25	0	19.37	19.32	19.26	0.0948	0.0938	0.0925
10	64QAM	25	12	19.31	19.30	19.29	0.0935	0.0933	0.0931
10	64QAM	25	25	19.28	19.21	19.26	0.0929	0.0914	0.0925
10	64QAM	50	0	19.28	19.15	19.16	0.0929	0.0902	0.0904
Channel				40065	40640	41215	40065	40640	41215
Frequency (MHz)				2537.5	2595	2652.5	2537.5	2595	2652.5
5	QPSK	1	0	22.02	22.13	21.88	0.1746	0.1791	0.1690
5	QPSK	1	12	21.87	21.95	21.78	0.1687	0.1718	0.1652
5	QPSK	1	24	21.85	21.96	21.87	0.1679	0.1722	0.1687
5	QPSK	12	0	21.31	21.38	21.21	0.1483	0.1507	0.1449
5	QPSK	12	7	21.19	21.26	21.02	0.1442	0.1466	0.1387
5	QPSK	12	13	21.17	21.19	21.13	0.1435	0.1442	0.1422
5	QPSK	25	0	21.27	21.38	21.30	0.1469	0.1507	0.1479
5	16QAM	1	0	21.11	21.16	21.03	0.1416	0.1432	0.1390
5	16QAM	1	12	21.01	21.08	21.08	0.1384	0.1406	0.1406
5	16QAM	1	24	21.04	21.01	20.97	0.1393	0.1384	0.1371
5	16QAM	12	0	20.36	20.32	20.41	0.1191	0.1180	0.1205
5	16QAM	12	7	20.27	20.35	20.40	0.1167	0.1189	0.1202
5	16QAM	12	13	20.20	20.24	20.32	0.1148	0.1159	0.1180
5	16QAM	25	0	20.23	20.28	20.29	0.1156	0.1169	0.1172
5	64QAM	1	0	20.10	20.08	20.01	0.1122	0.1117	0.1099
5	64QAM	1	12	20.05	20.01	19.99	0.1109	0.1099	0.1094
5	64QAM	1	24	20.06	19.95	20.01	0.1112	0.1084	0.1099
5	64QAM	12	0	19.43	19.35	19.28	0.0962	0.0944	0.0929
5	64QAM	12	7	19.27	19.21	19.25	0.0927	0.0914	0.0923
5	64QAM	12	13	19.25	19.20	19.21	0.0923	0.0912	0.0914
5	64QAM	25	0	19.21	19.24	19.20	0.0914	0.0920	0.0912

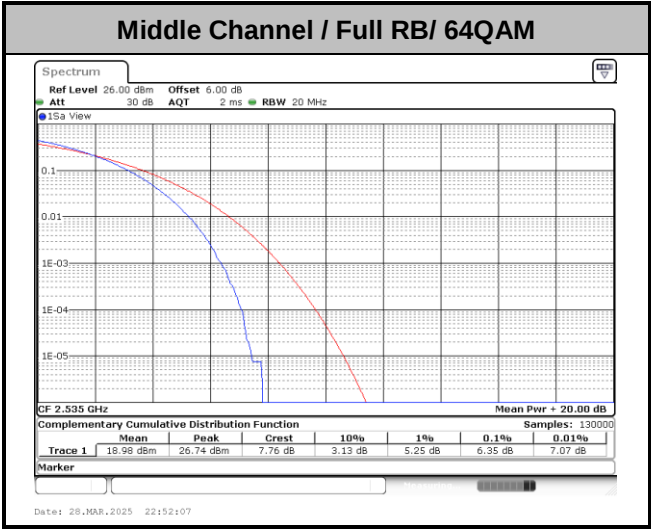


LTE Band 7

Peak-to-Average Ratio

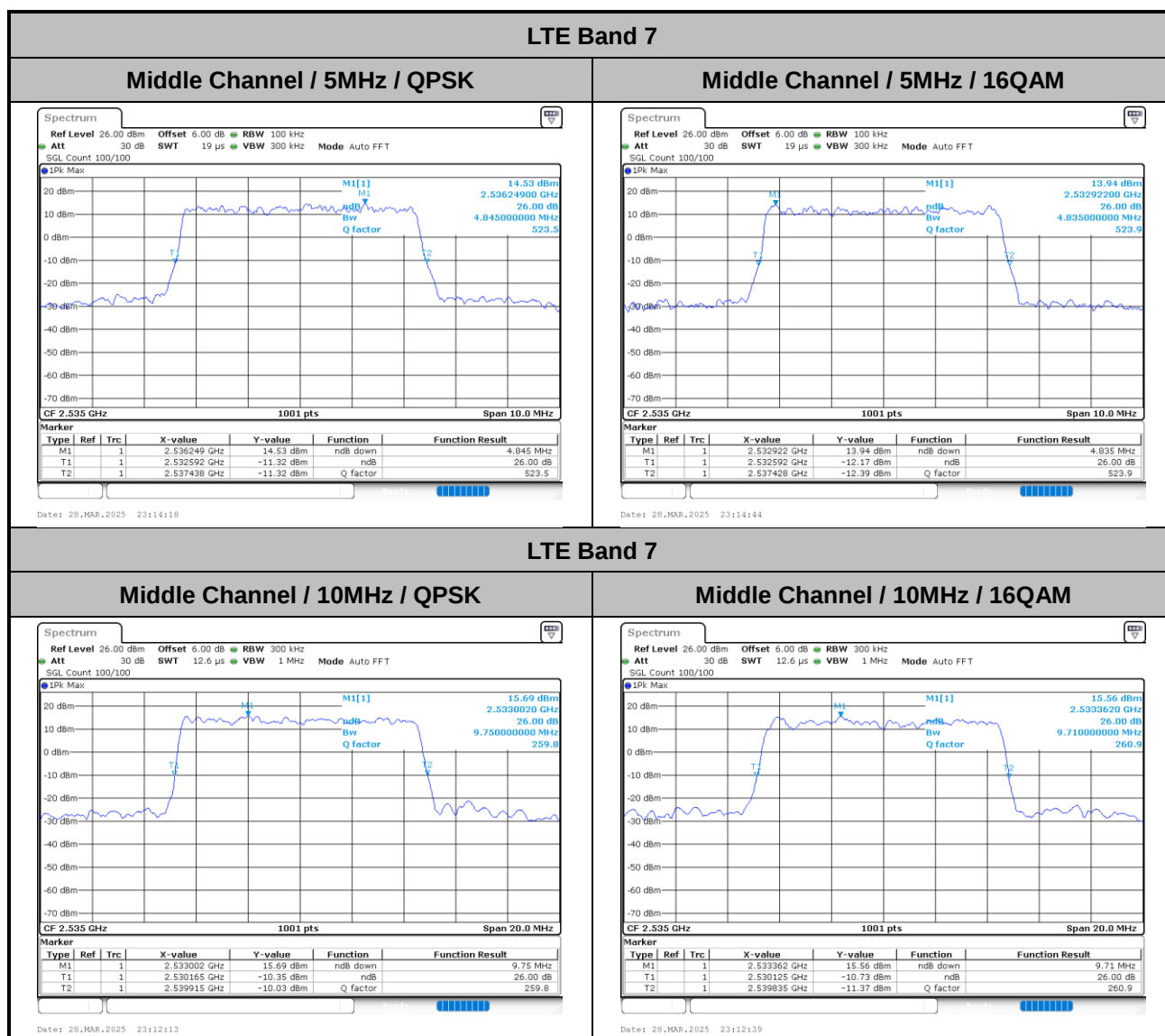
Mode	LTE Band 7 / 20MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	5.13	6.03	6.35	PASS





**26dB Bandwidth**

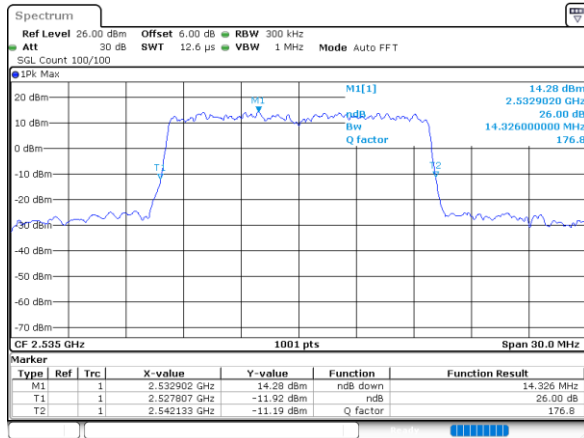
Mode	LTE Band 7 : 26dB BW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.85	4.84	9.75	9.71	14.33	14.30	18.94	18.82





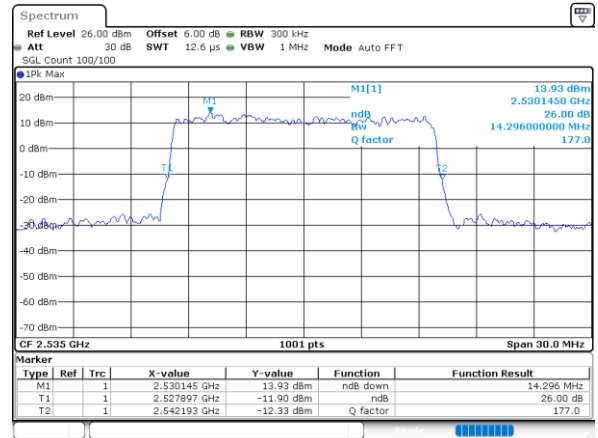
LTE Band 7

Middle Channel / 15MHz / QPSK



Date: 28.MAR.2025 22:53:32

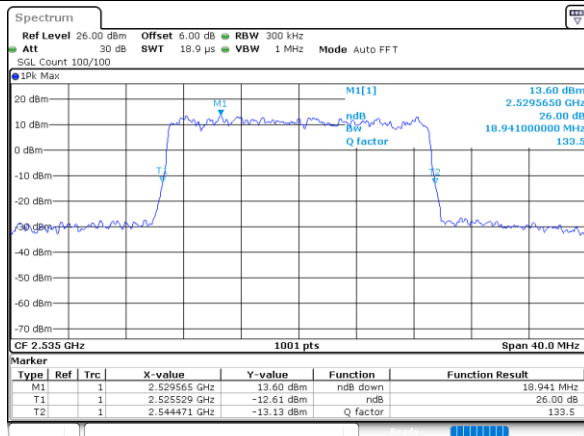
Middle Channel / 15MHz / 16QAM



Date: 28.MAR.2025 22:53:58

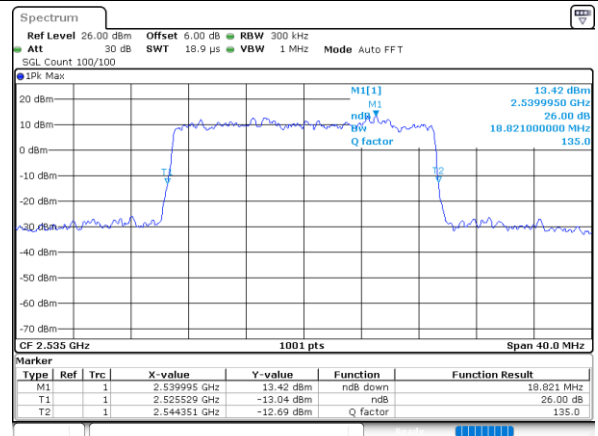
LTE Band 7

Middle Channel / 20MHz / QPSK



Date: 28.MAR.2025 22:50:27

Middle Channel / 20MHz / 16QAM

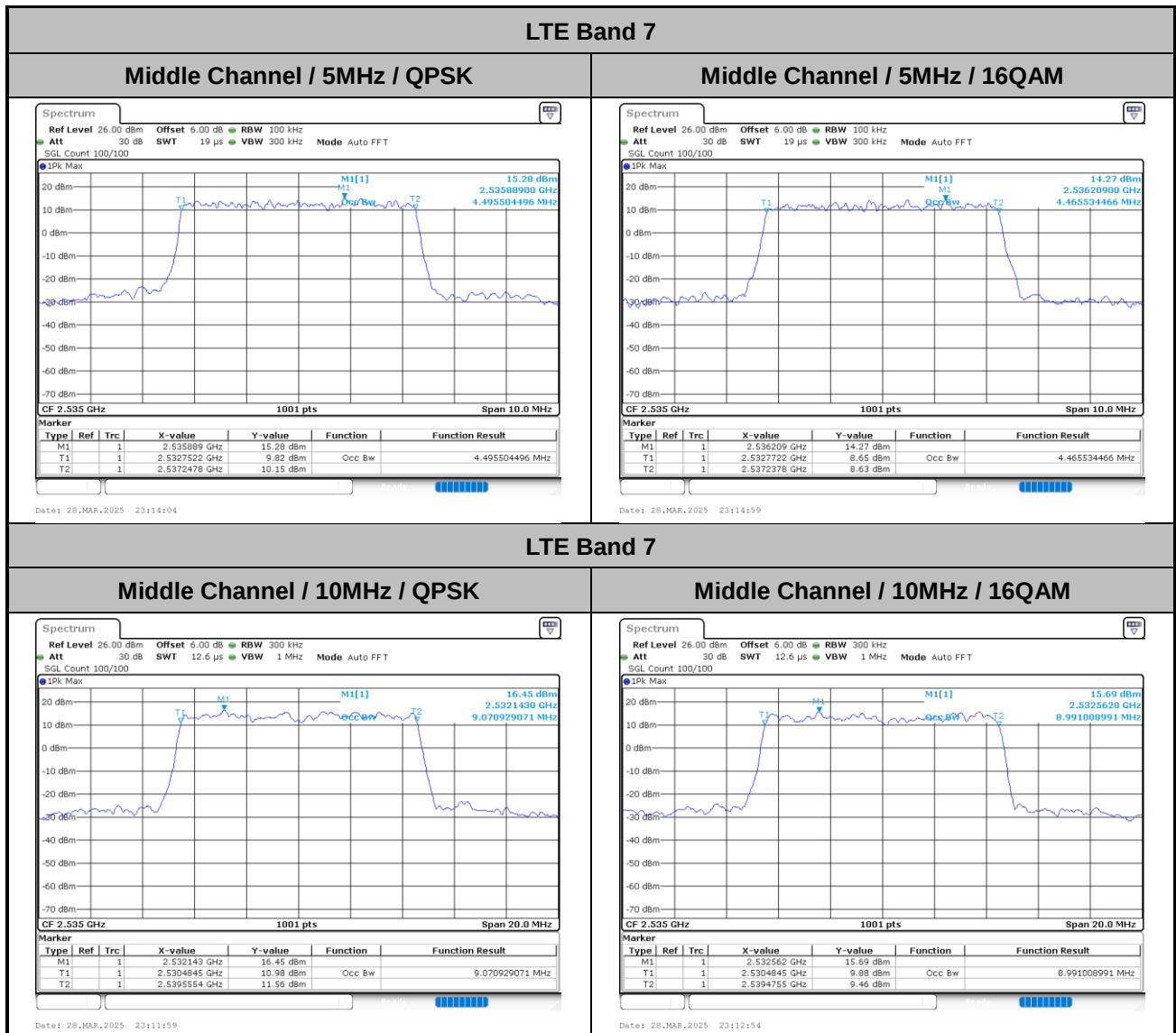


Date: 28.MAR.2025 22:51:24



Occupied Bandwidth

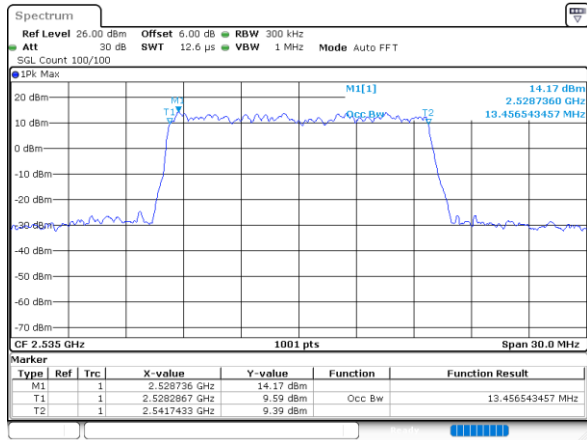
Mode	LTE Band 7 : 99%OBW(MHz)							
BW	5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	4.50	4.47	9.07	8.99	13.46	13.43	17.86	17.86



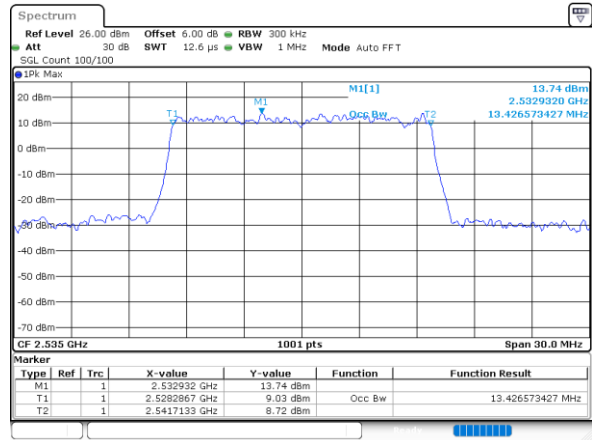


LTE Band 7

Middle Channel / 15MHz / QPSK

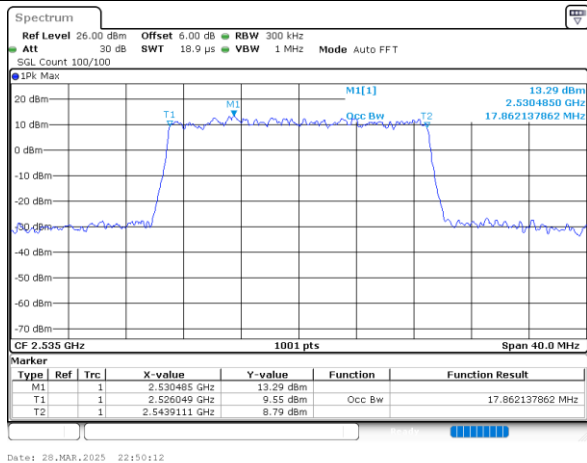


Middle Channel / 15MHz / 16QAM

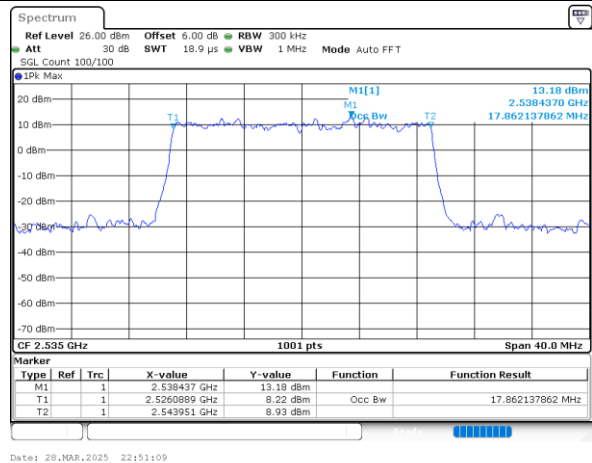


LTE Band 7

Middle Channel / 20MHz / QPSK



Middle Channel / 20MHz / 16QAM

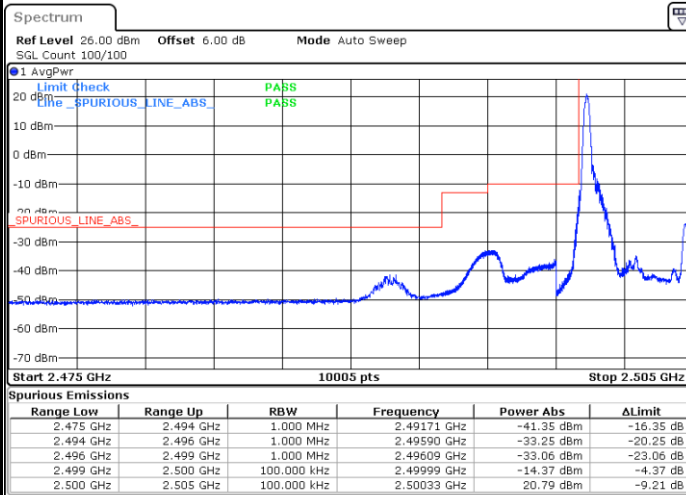




Conducted Band Edge

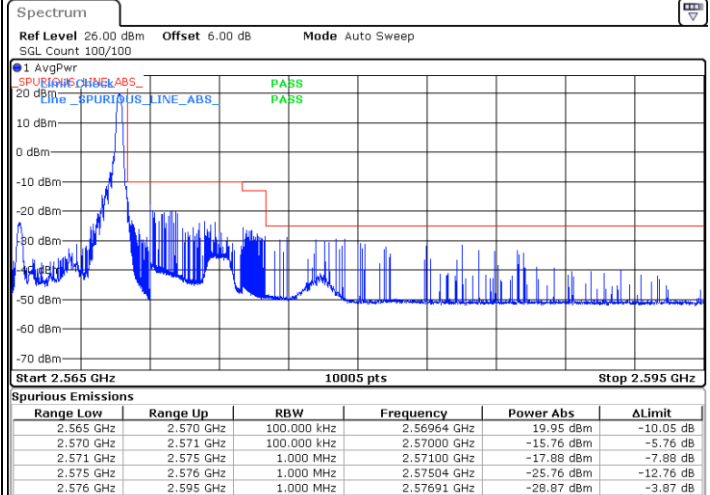
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



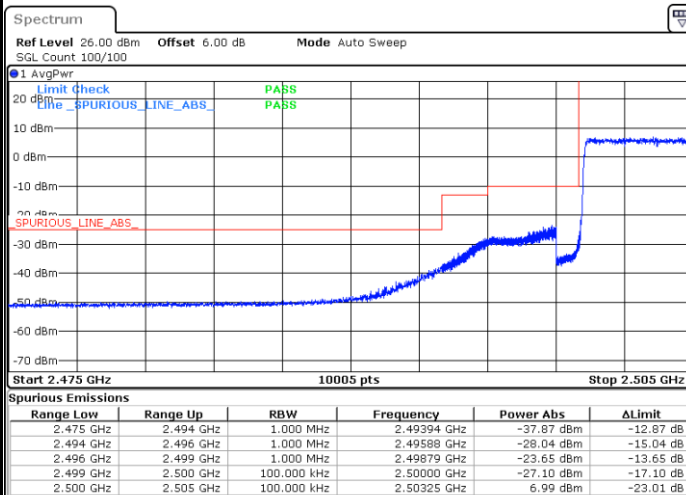
Date: 28.MAR.2025 21:17:02

Highest Band Edge / 1 RB



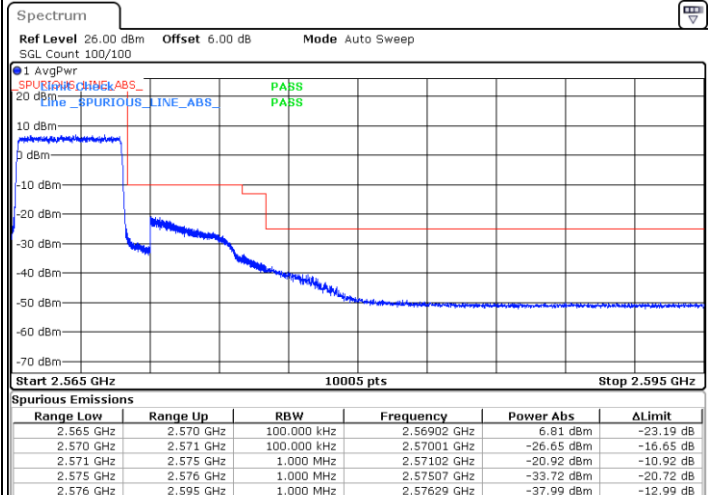
Date: 28.MAR.2025 21:23:05

Lowest Band Edge / Full RB



Date: 28.MAR.2025 21:20:23

Highest Band Edge / Full RB

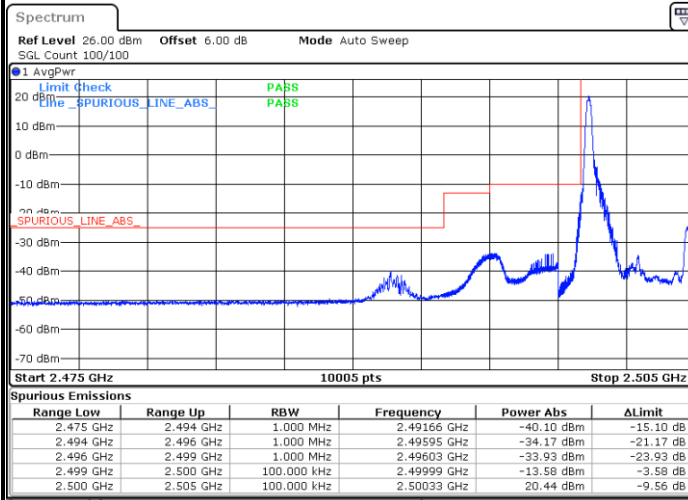


Date: 28.MAR.2025 21:26:08

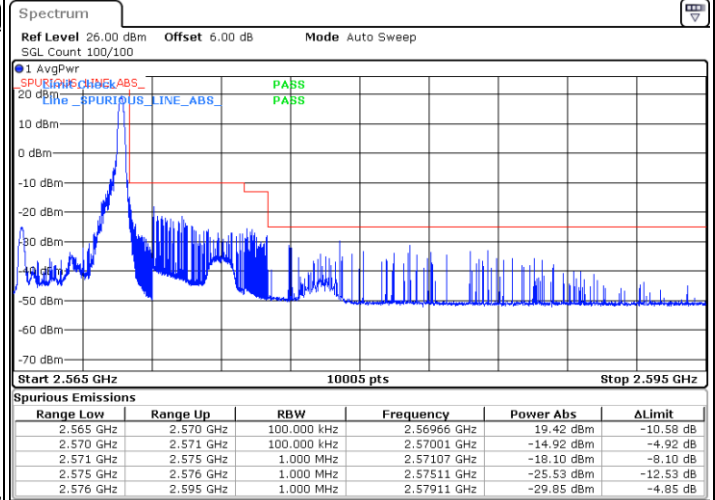


LTE Band 7 / 5MHz / 16QAM

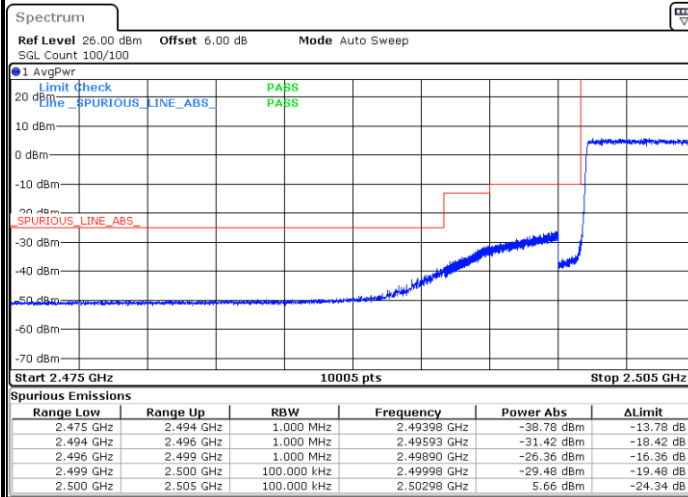
Lowest Band Edge / 1RB



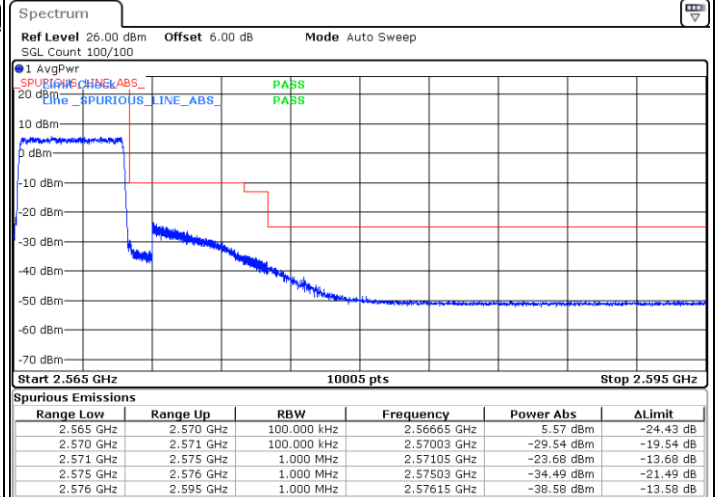
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



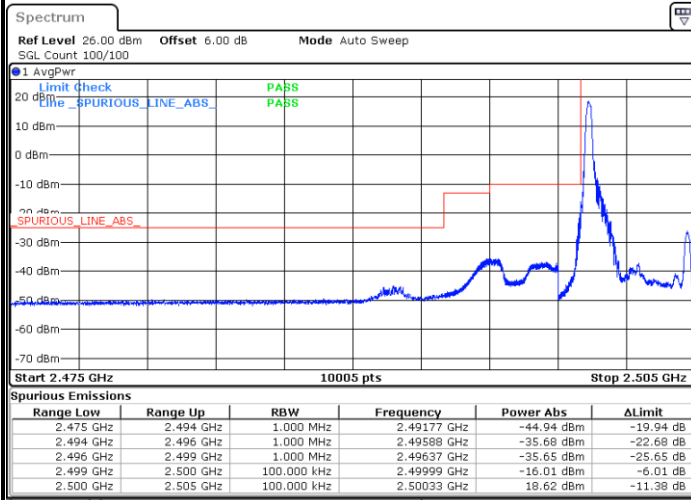
Highest Band Edge / Full RB



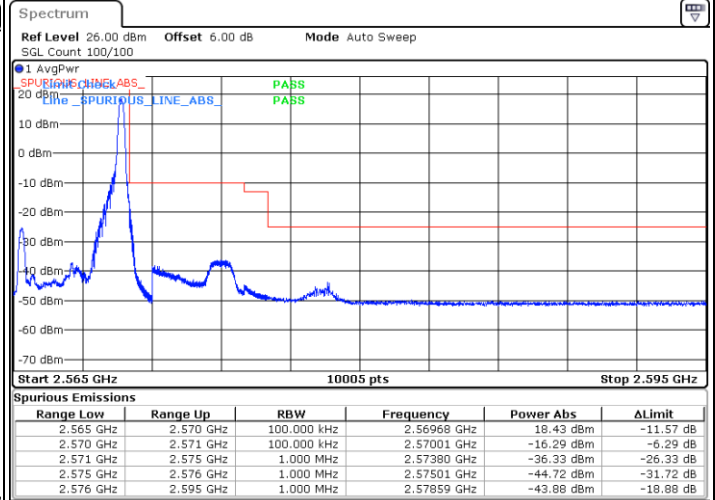


LTE Band 7 / 5MHz / 64QAM

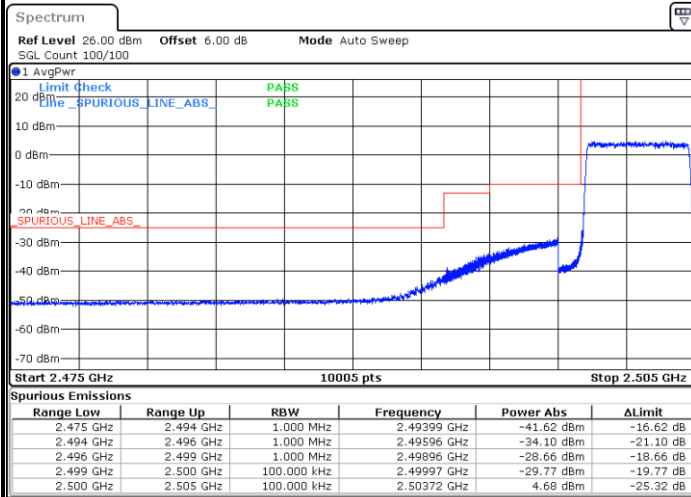
Lowest Band Edge / 1RB



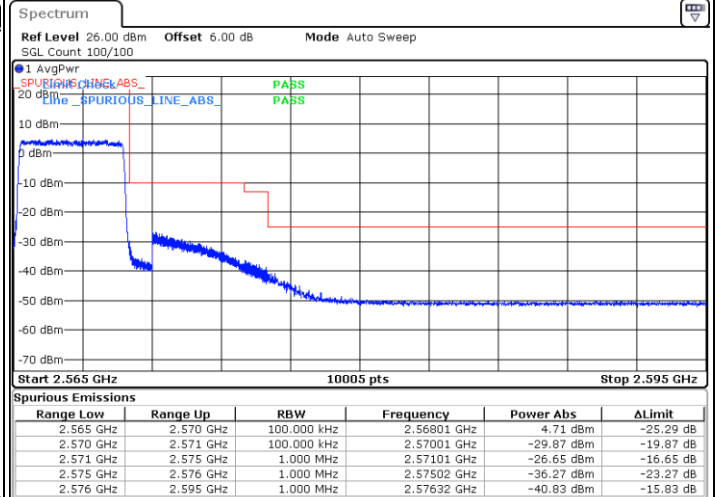
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



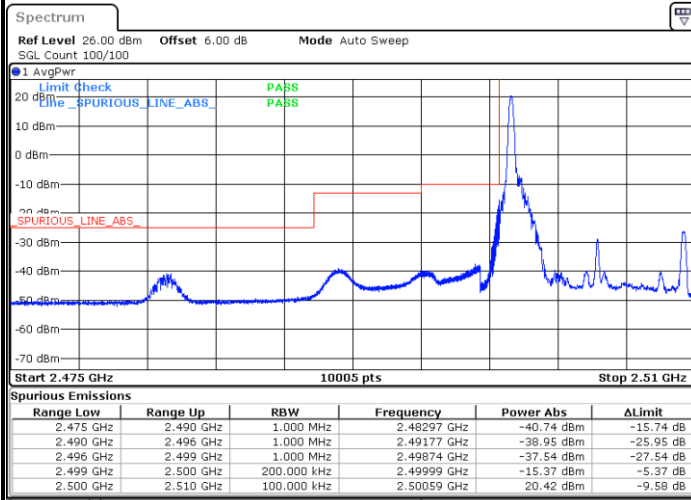
Highest Band Edge / Full RB



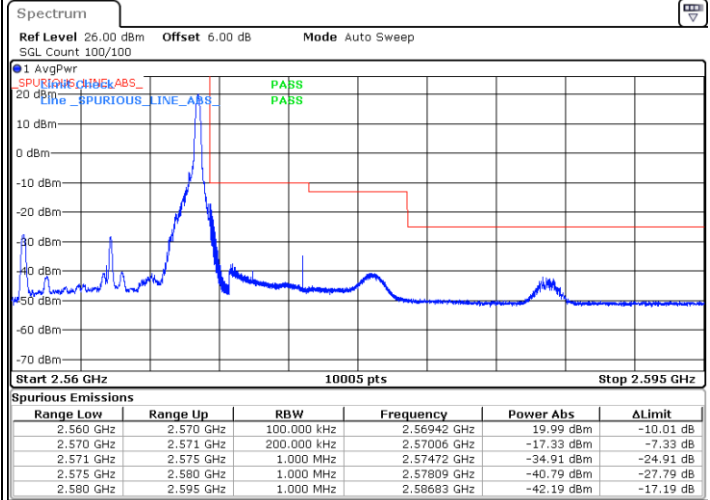


LTE Band 7 / 10MHz / QPSK

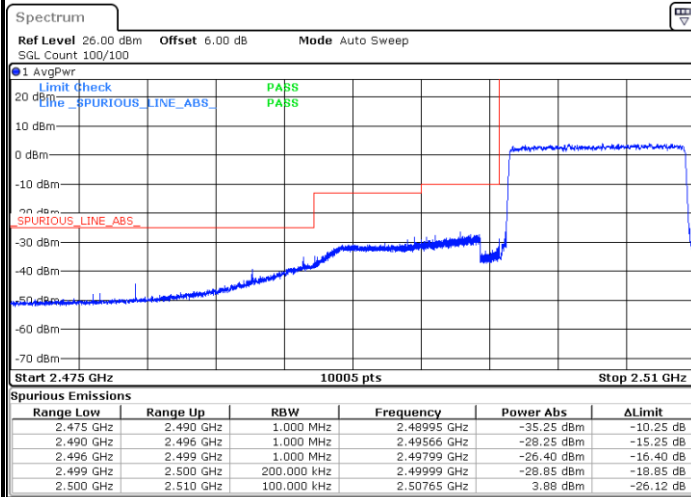
Lowest Band Edge / 1 RB



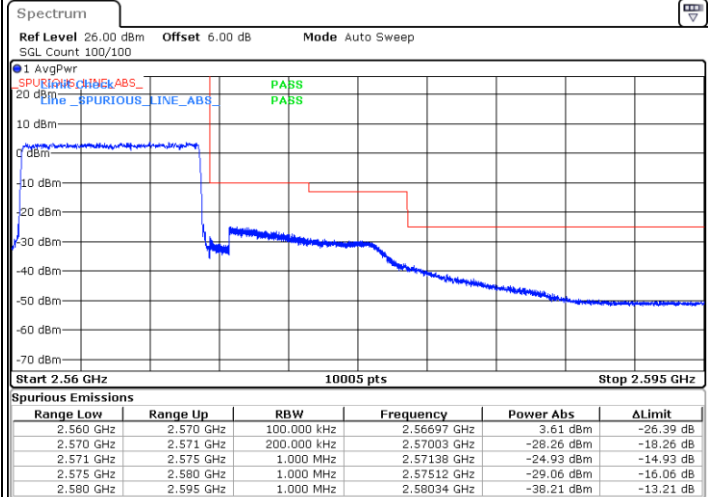
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



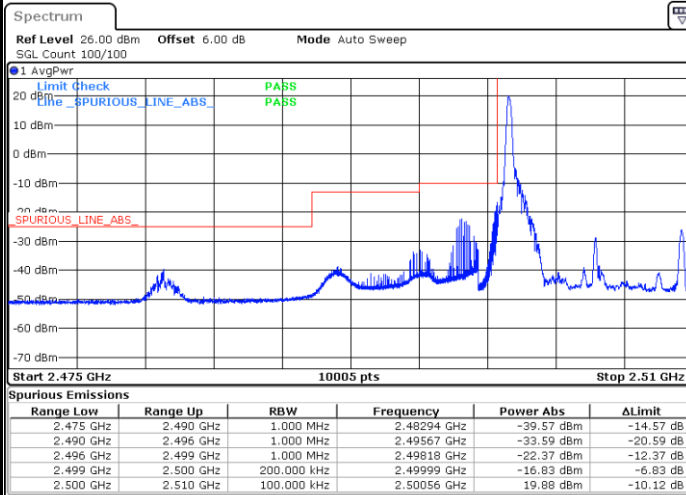
Highest Band Edge / Full RB



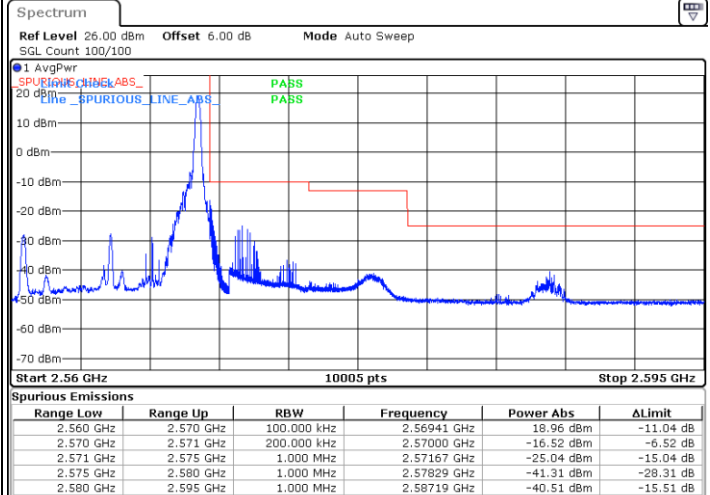


LTE Band 7 / 10MHz / 16QAM

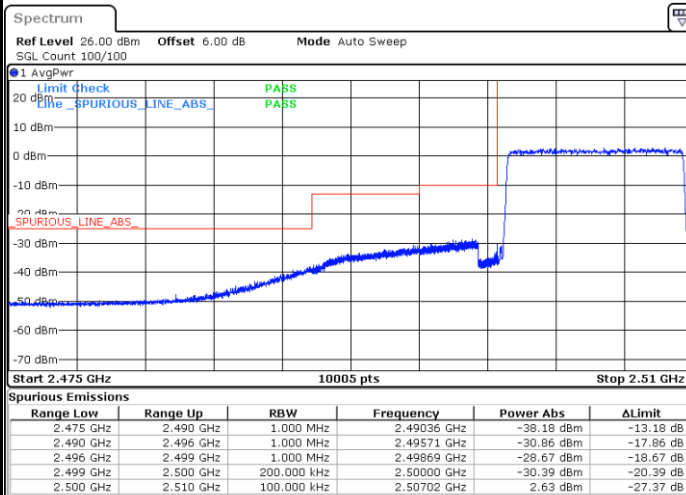
Lowest Band Edge / 1 RB



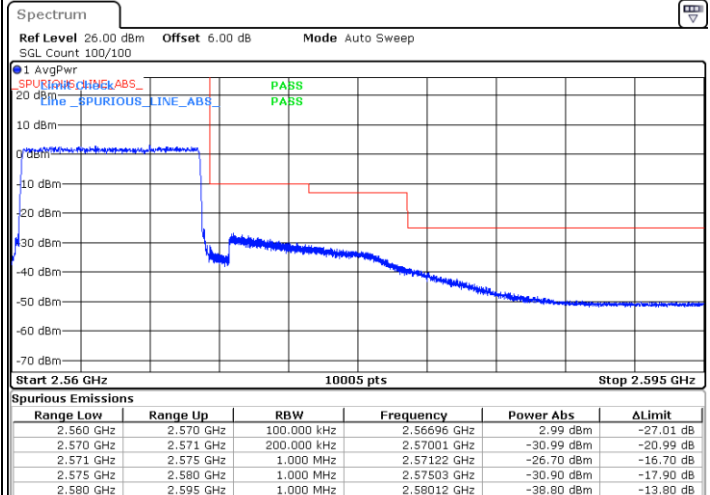
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



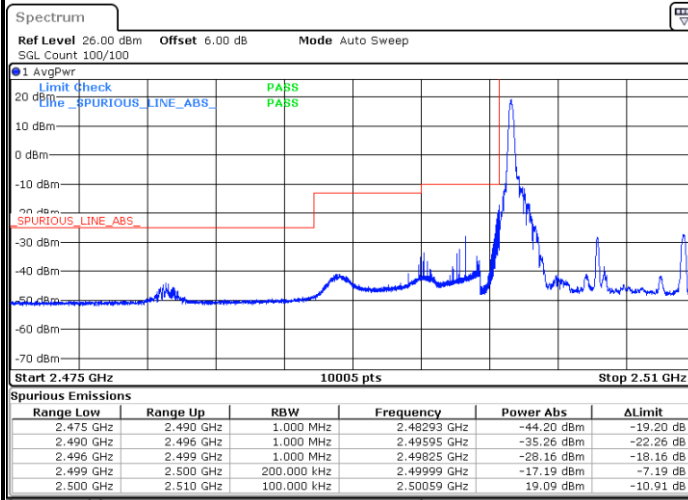
Highest Band Edge / Full RB



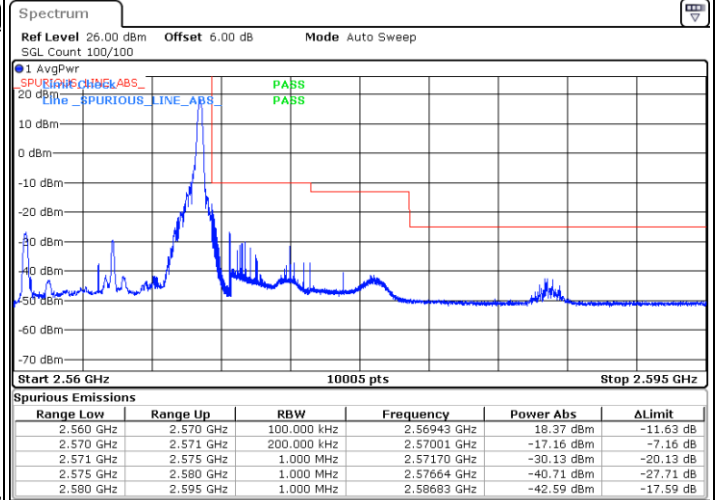


LTE Band 7 / 10MHz / 64QAM

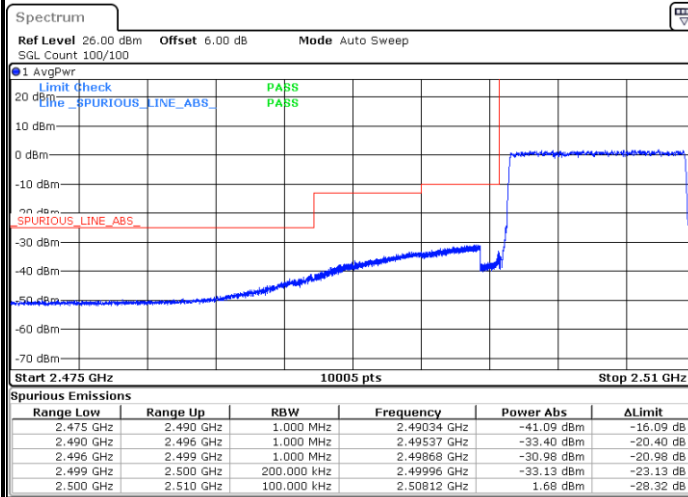
Lowest Band Edge / 1 RB



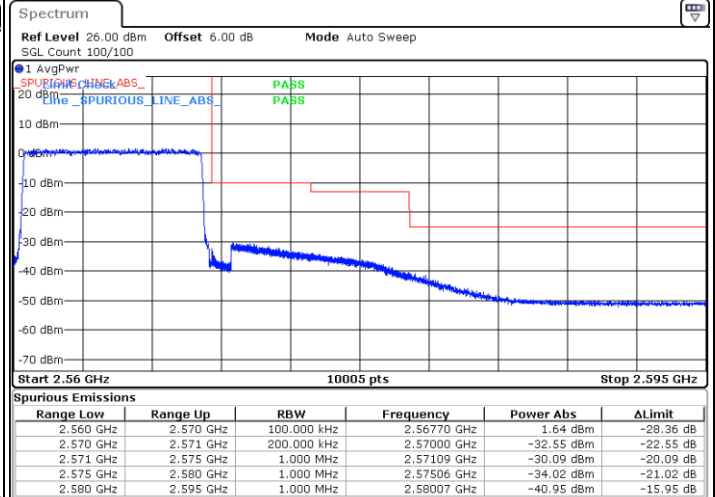
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



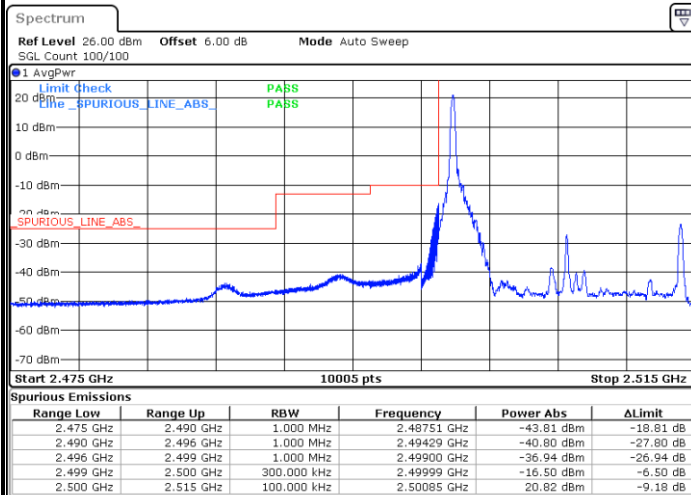
Highest Band Edge / Full RB



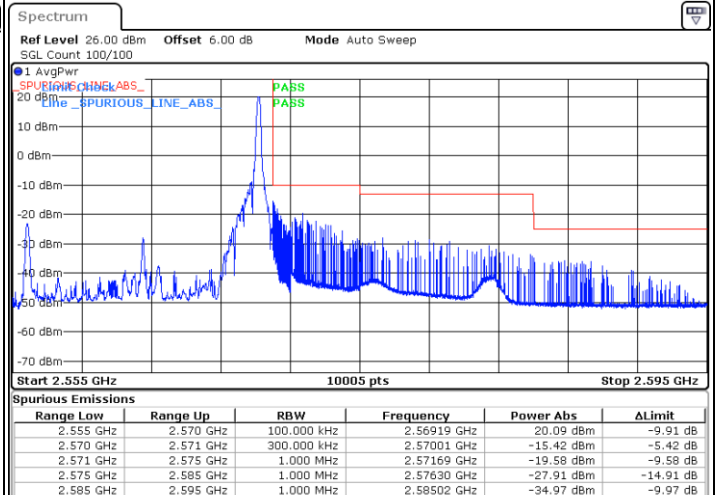


LTE Band 7 / 15MHz / QPSK

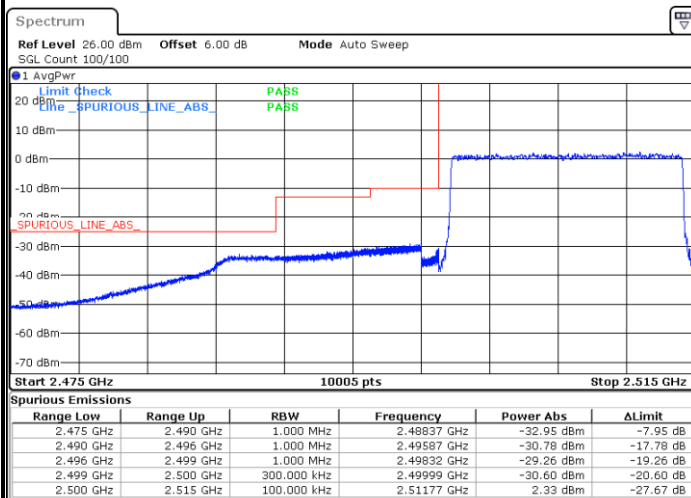
Lowest Band Edge / 1 RB



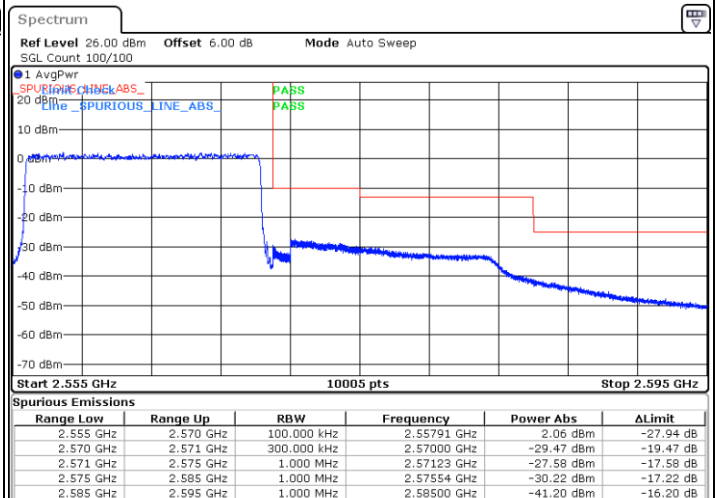
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



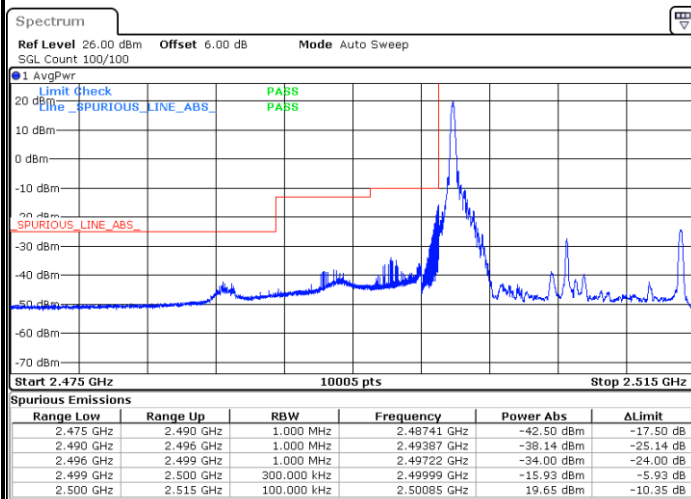
Highest Band Edge / Full RB



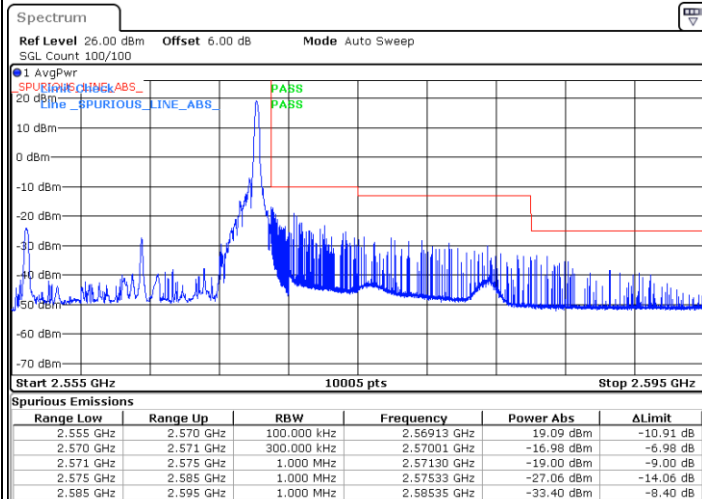


LTE Band 7 / 15MHz / 16QAM

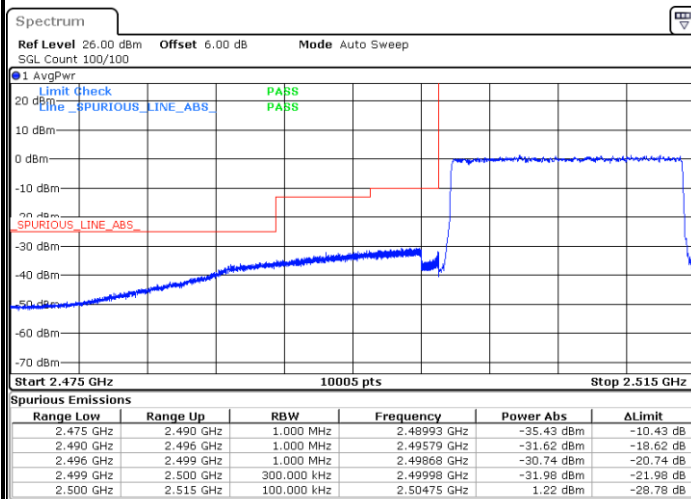
Lowest Band Edge / 1 RB



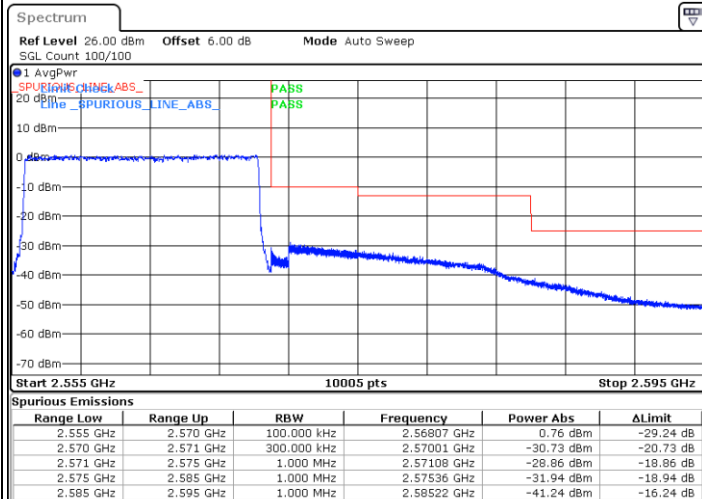
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



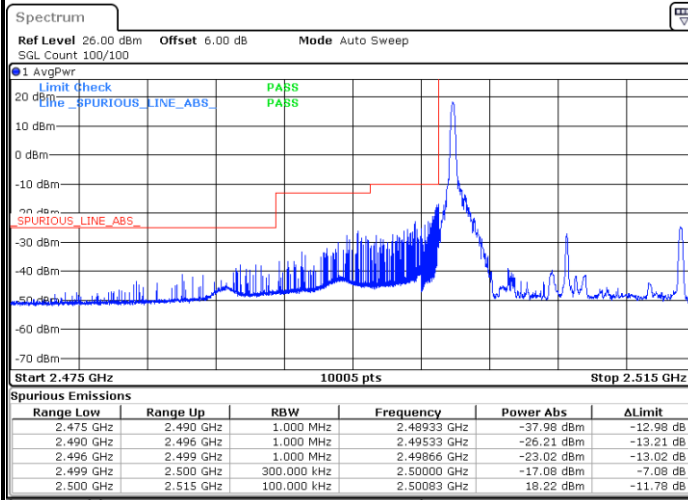
Highest Band Edge / Full RB



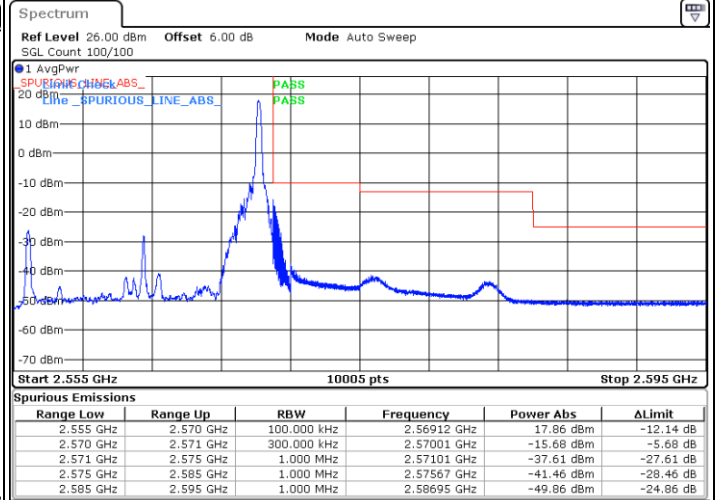


LTE Band 7 / 15MHz / 64QAM

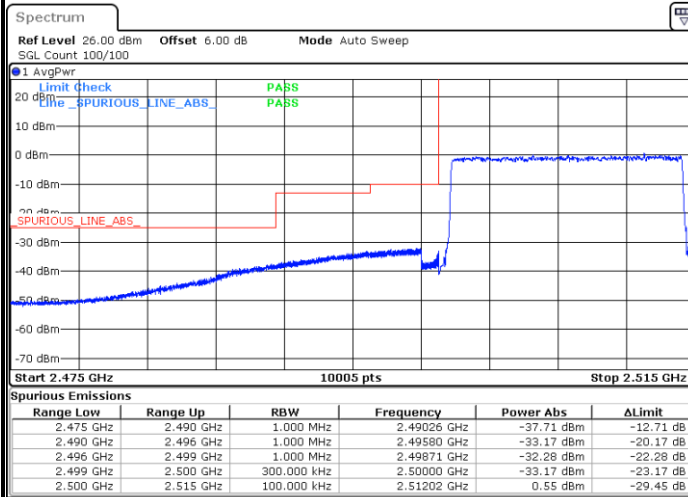
Lowest Band Edge / 1 RB



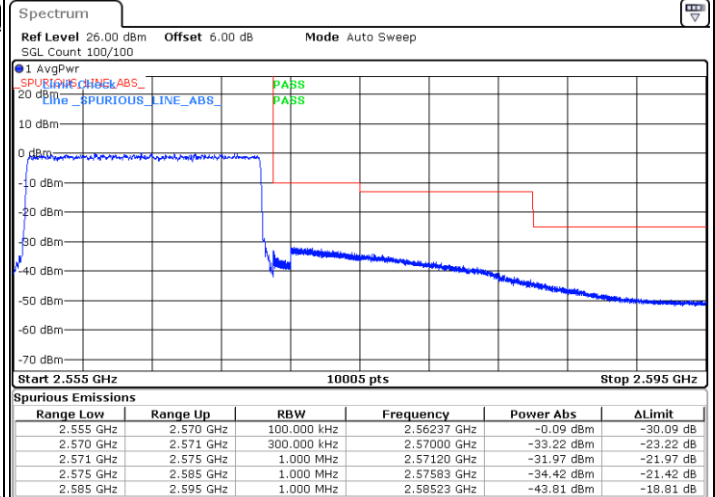
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



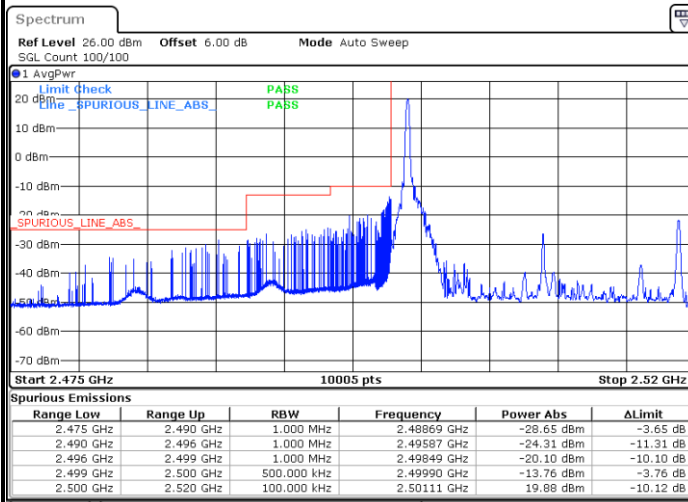
Highest Band Edge / Full RB



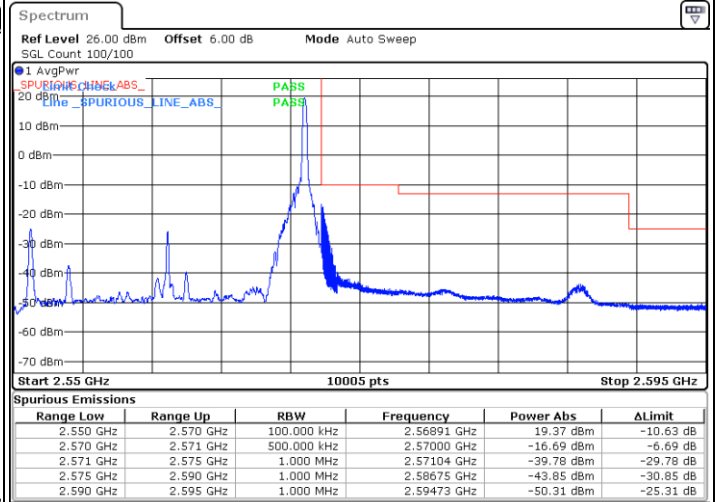


LTE Band 7 / 20MHz / QPSK

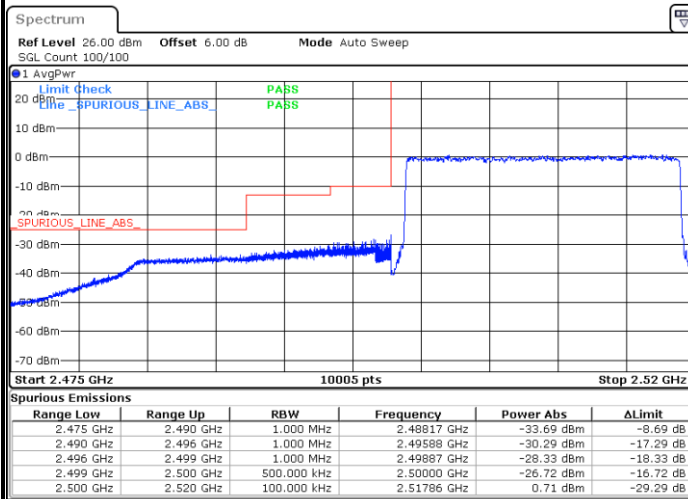
Lowest Band Edge / 1 RB



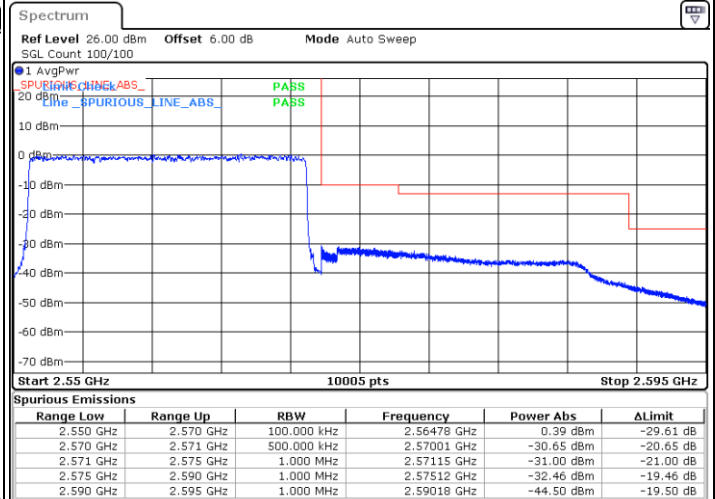
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



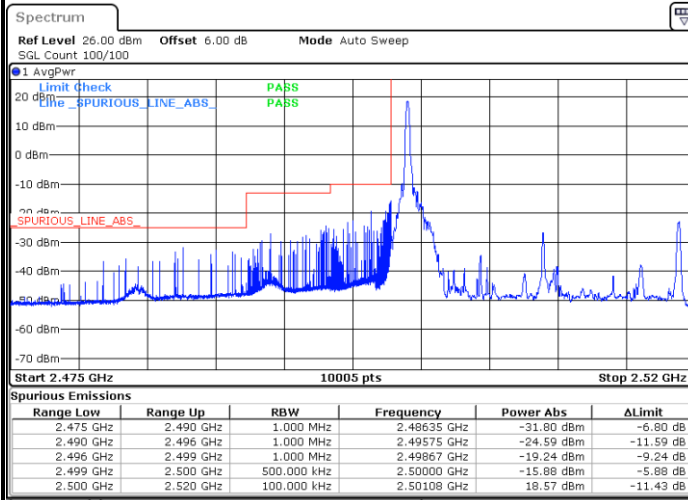
Highest Band Edge / Full RB



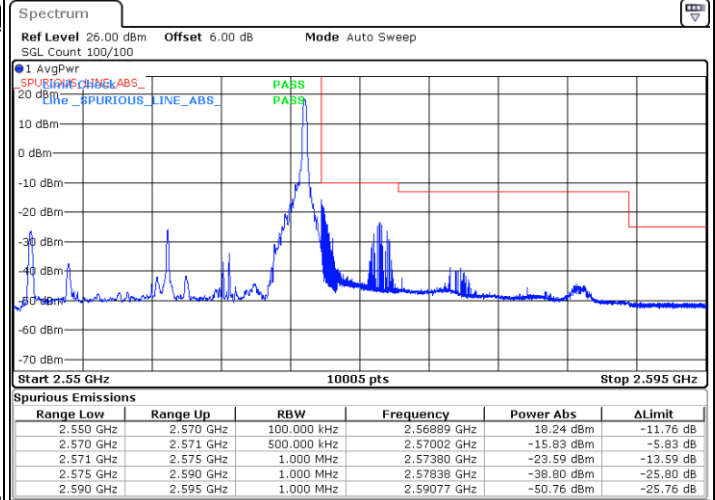


LTE Band 7 / 20MHz / 16QAM

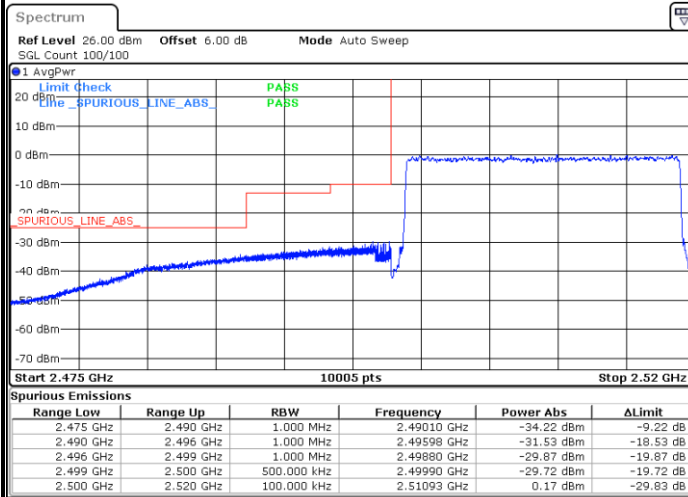
Lowest Band Edge / 1 RB



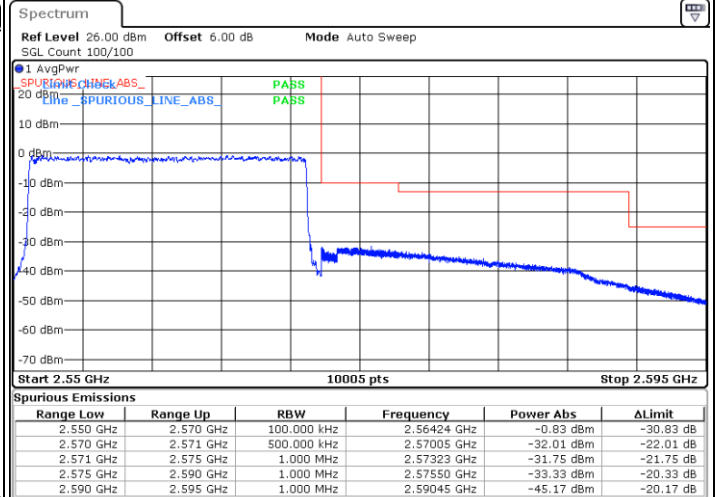
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



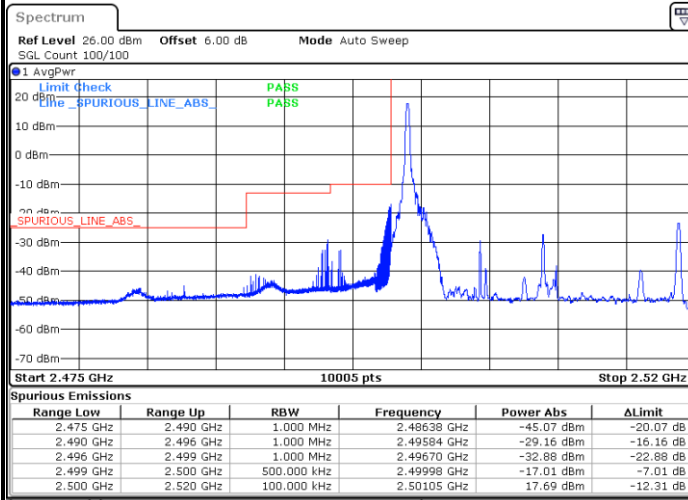
Highest Band Edge / Full RB



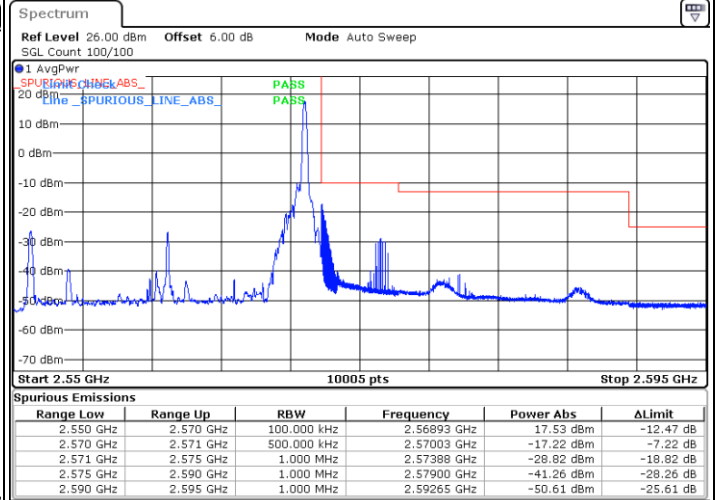


LTE Band 7 / 20MHz / 64QAM

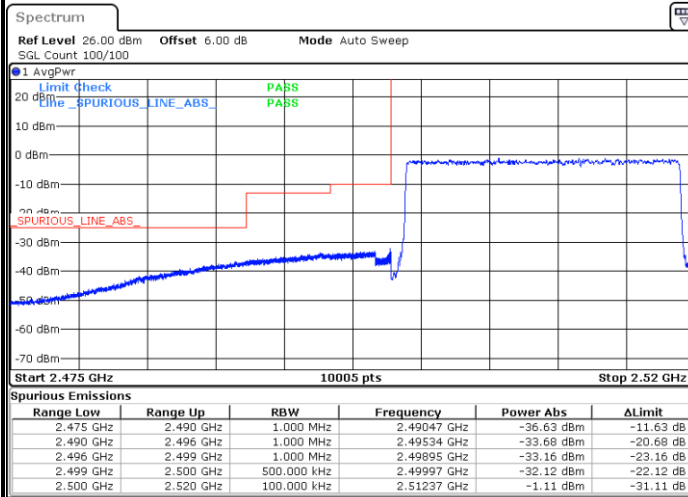
Lowest Band Edge / 1 RB



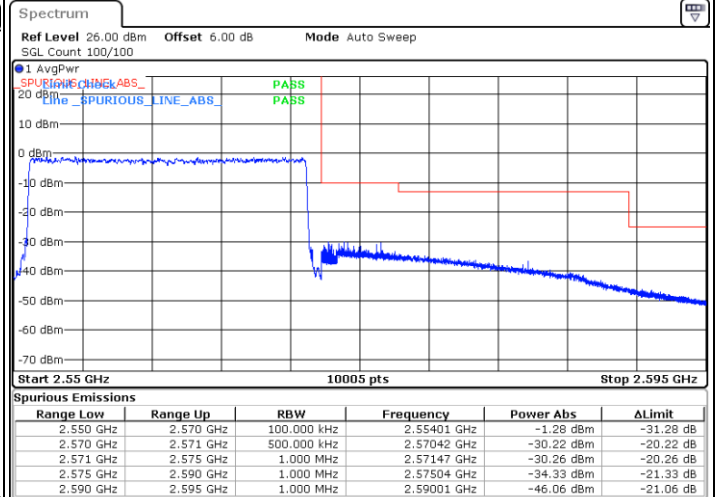
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

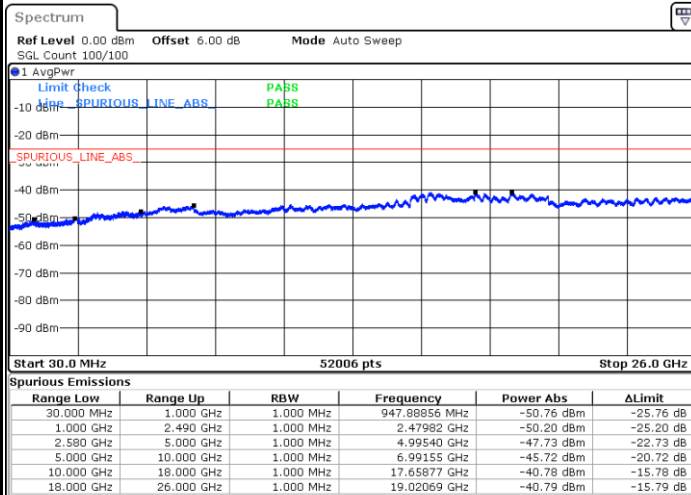




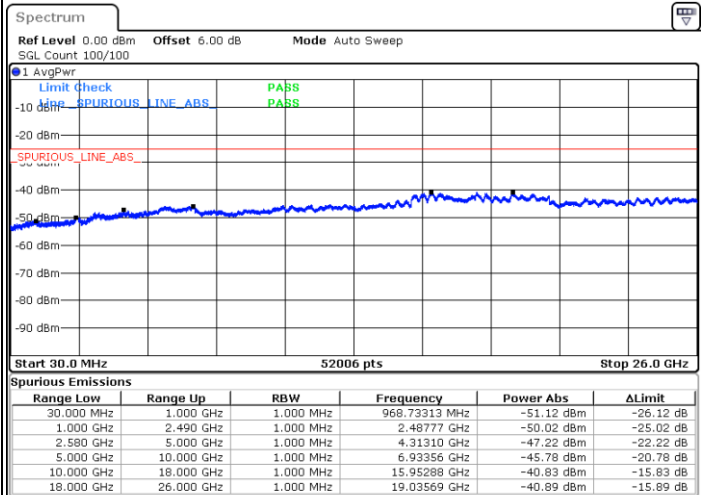
Conducted Spurious Emission

LTE Band 7 / 5MHz

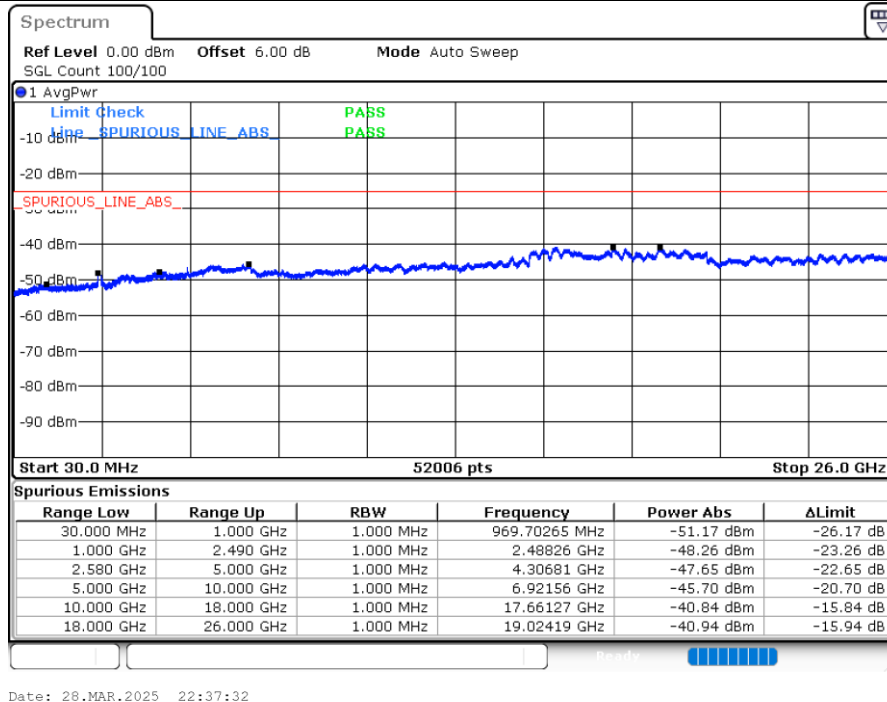
Lowest Channel / QPSK



Middle Channel / QPSK



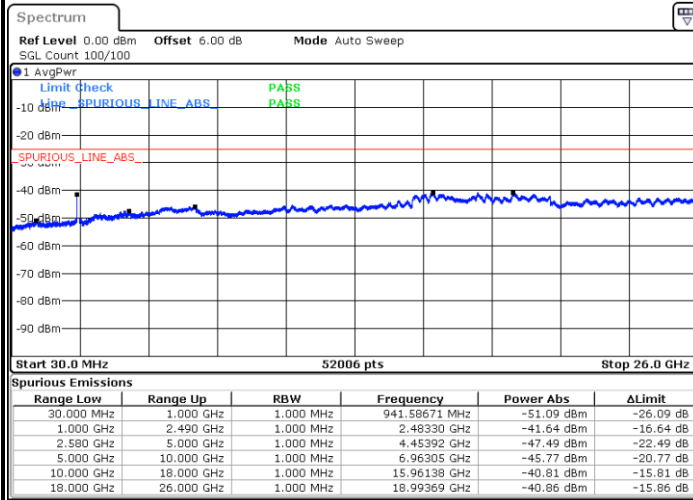
Highest Channel / QPSK





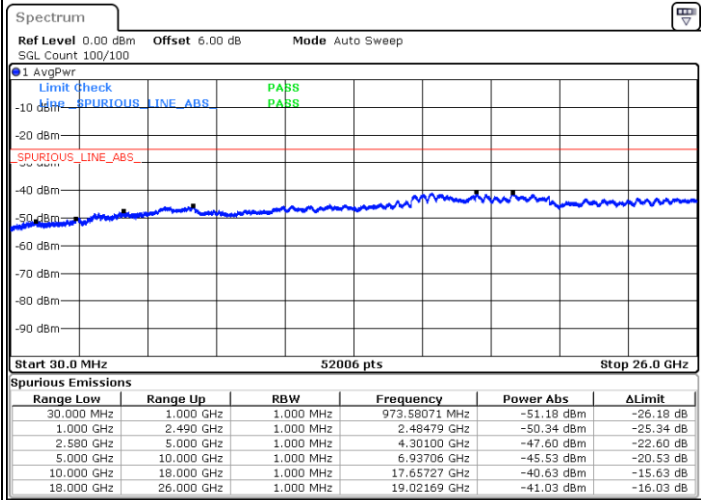
LTE Band 7 / 10MHz

Lowest Channel / QPSK



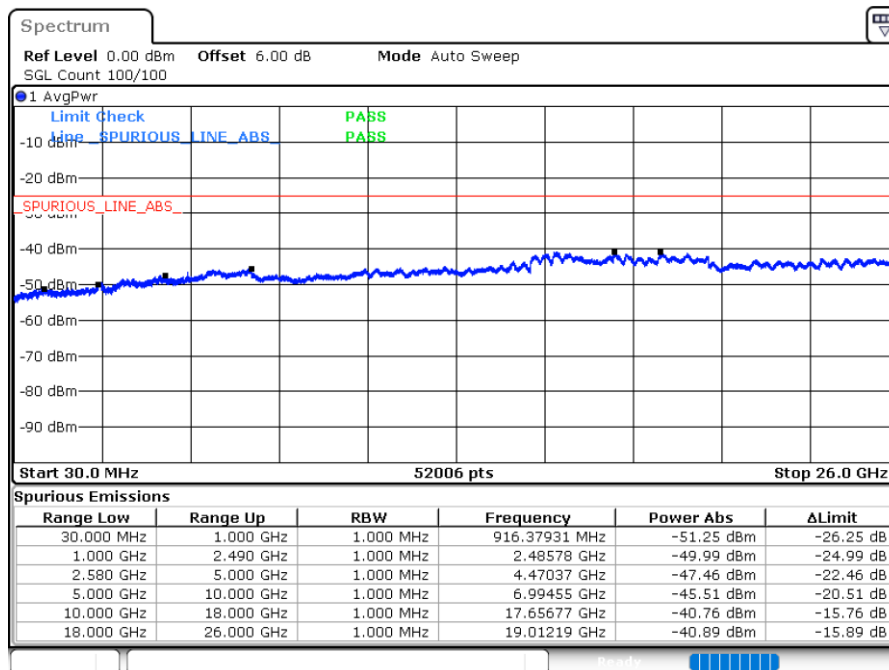
Date: 28.MAR.2025 22:39:22

Middle Channel / QPSK



Date: 28.MAR.2025 22:40:29

Highest Channel / QPSK

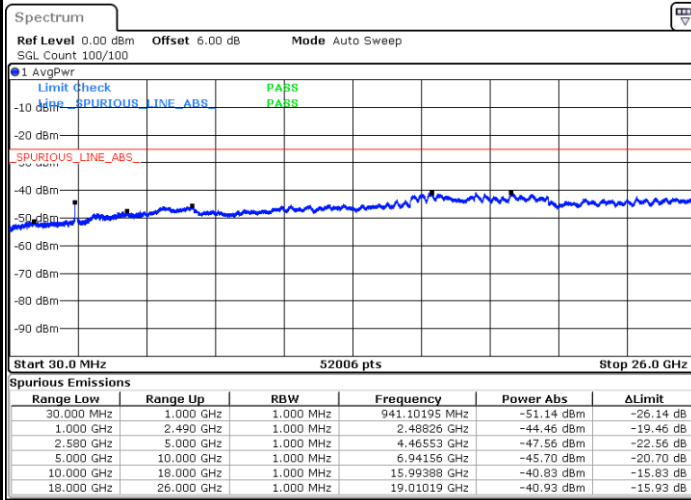


Date: 28.MAR.2025 22:41:36



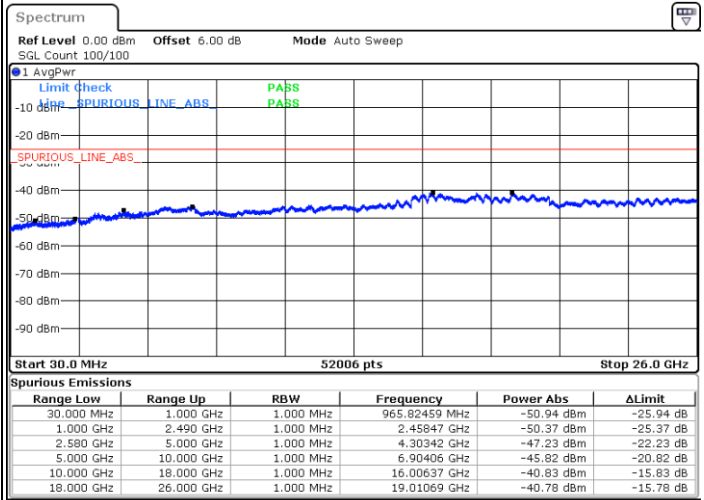
LTE Band 7 / 15MHz

Lowest Channel / QPSK



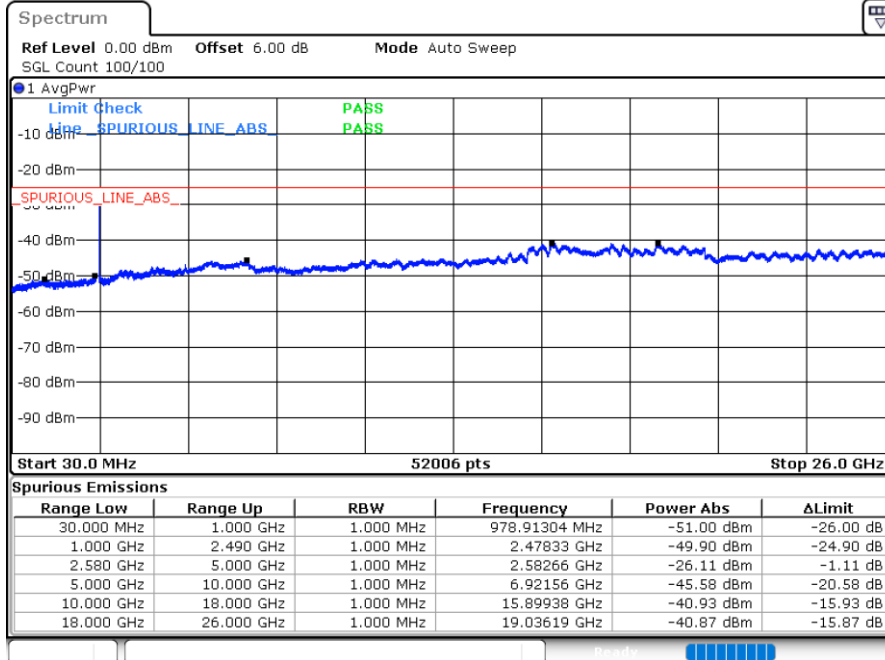
Date: 28.MAR.2025 22:43:26

Middle Channel / QPSK



Date: 28.MAR.2025 22:44:33

Highest Channel / QPSK

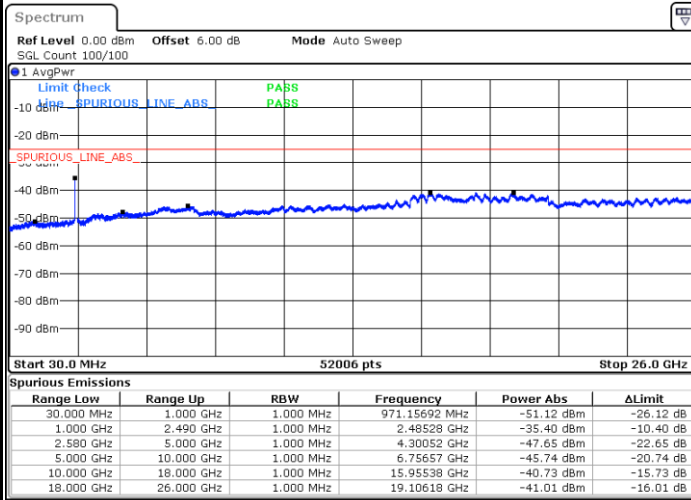


Date: 28.MAR.2025 22:45:40



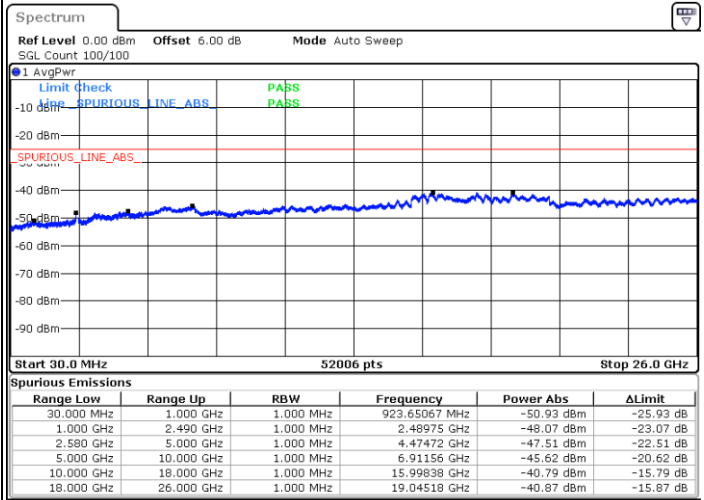
LTE Band 7 / 20MHz

Lowest Channel / QPSK



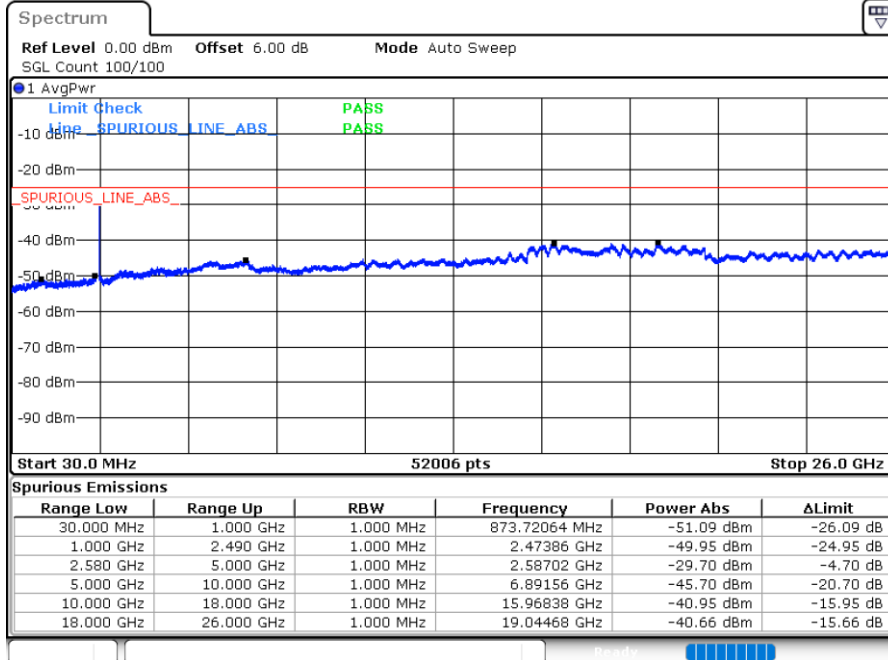
Date: 28.MAR.2025 22:47:31

Middle Channel / QPSK



Date: 28.MAR.2025 22:48:38

Highest Channel / QPSK



Date: 28.MAR.2025 22:49:45

Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0039	
30	Normal Voltage	0.0042	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0052	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0020	
-20	Normal Voltage	0.0063	
-30	Normal Voltage	0.0075	
20	Maximum Voltage	0.0042	
20	Normal Voltage	0.0018	
20	Battery End Point	0.0053	

Note:

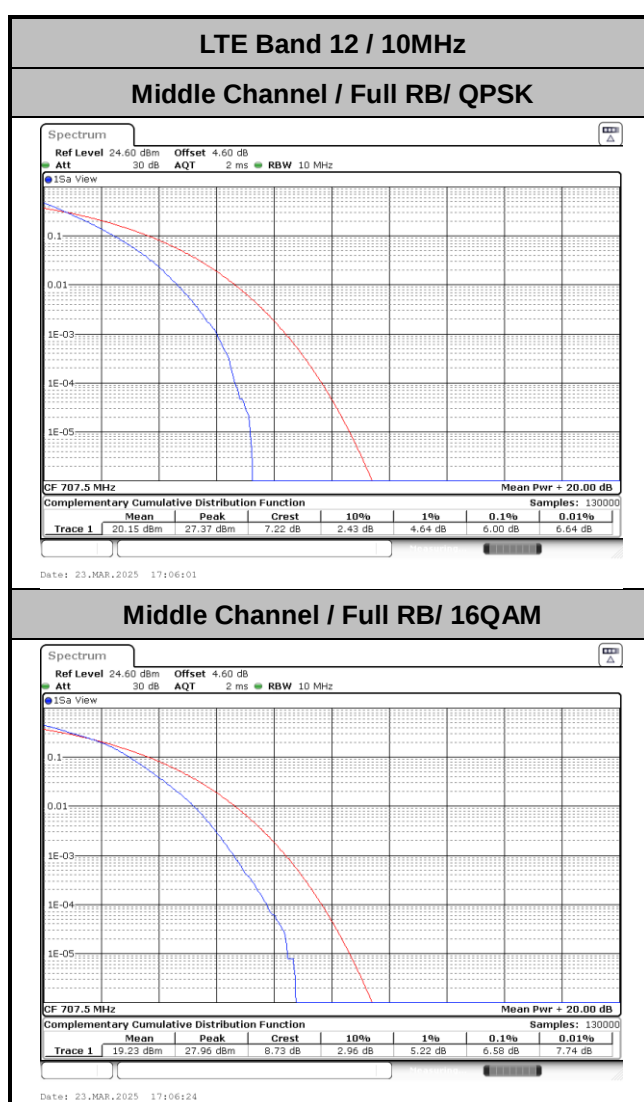
1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

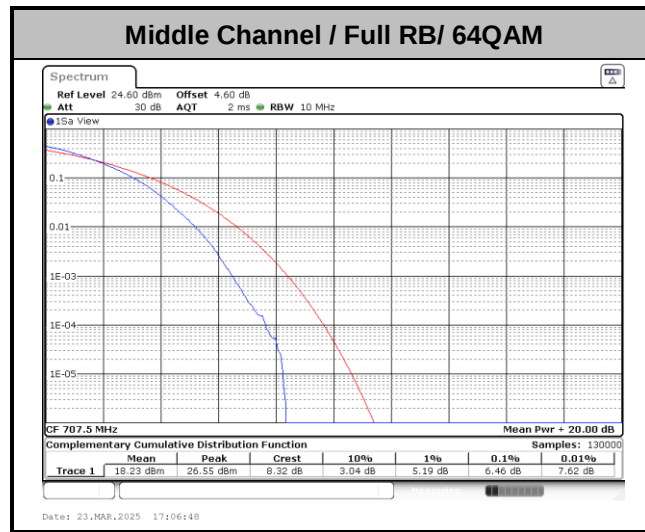


LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK	16QAM	64QAM		Limit: 13dB
RB Size	Full RB	Full RB	Full RB		Result
Middle CH	6.00	6.58	6.46		PASS





**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)	
BW	1.4MHz	
Mod.	QPSK	16QAM
Middle CH	1.27	1.30
BW	3MHz	
Mod.	QPSK	16QAM
Middle CH	2.94	2.96
BW	5MHz	
Mod.	QPSK	16QAM
Middle CH	5.06	4.92
BW	10MHz	
Mod.	QPSK	16QAM
Middle CH	9.91	10.07

