



FCC RADIO TEST REPORT

FCC ID : NKR-VMC-QSA515MNA
Equipment : Module (Data + Voice)
Brand Name : Wistron NeWeb Corporation
Model Name : VMC-QSA515M NA
Marketing Name : VMC-QSA515M NA
Applicant : Wistron NeWeb Corporation
20 Park Avenue II, Hsinchu Science
Park, Hsinchu 308 Taiwan
Manufacturer : Wistron NeWeb Corporation
20 Park Avenue II, Hsinchu Science
Park, Hsinchu 308 Taiwan
Standard : FCC 47 CFR Part 2, 22(H), 24(E), 27,
Part 90(R), Part 90(S)

The product was received on Aug. 30, 2023 and testing was performed from Oct. 17, 2023 to Nov. 27, 2023. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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History of this test report

Report No.	Version	Description	Issue Date
FG370621-01B	01	Initial issue of report	Dec. 08, 2023
FG370621-01B	02	Revise Frequency List of Low/Middle/High Channels and Description of Frequency Stability Measurement This report is an updated version, replacing the report issued on Dec. 08, 2023.	Dec. 18, 2023
FG370621-01B	03	Revise Appendix A This report is an updated version, replacing the report issued on Dec. 18, 2023.	May 28, 2024



Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046	Conducted Output Power	Reporting only	-
	§22.913 (a)(5) §90.635	Effective Radiated Power (Band 5) (Band 26)	Pass	
	§27.50 (b)(10) §27.50 (c)(10)	Effective Radiated Power (Band 12) (Band 13) (Band 17) (Band 71)		
	§24.232 (c) §27.50 (h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 41)		
	§27.50 (d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)		
	§90.542 (a)(7)	Effective Radiated Power (Band 14)		
3.3	§24.232 (d) §27.50 (d)(5)	Peak-to-Average Ratio	Pass	-
3.4	§2.1049	Occupied Bandwidth	Reporting only	-
3.5	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2)(4) §27.53 (g) §27.53 (h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	Pass	-
	§2.1051 §27.53 (m)(4)	Conducted Band Edge Measurement (Band 7) (Band 41)		
	§2.1051 §90.543 (e)(2)	Conducted Band Edge Measuremen (Band 14)		
3.6	§2.1051 §90.210 (n)	Emission Mask (Band 14)	Pass	-
	§2.1051 §90.691	Emission masks (Band 26)		



Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.7	§2.1051 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (g) §27.53 (h) §90.691	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	Pass	-
	§2.1051 §27.53 (m)(4)	Conducted Spurious Emission (Band 7) (Band 41)		
	§2.1051 §90.543 (e)(3)	Conducted Spurious Emission (Band 14)		
3.8	§2.1055 §22.355 §24.235 §27.54 §90.539 (e) §90.691	Frequency Stability Temperature & Voltage	Pass	-
4.2	§2.1053 §22.917 (a) §24.238 (a) §27.53 (c)(2) §27.53 (f) §27.53 (g) §27.53 (h) §90.691	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 17) (Band 25) (Band 26) (Band 66) (Band 71)	Pass	20.69 dB under the limit at 7752.00 MHz for
	§2.1053 §27.53 (m)(4)	Radiated Spurious Emission (Band 7) (Band 41)		
	§2.1053 §90.543 (e)(3) §90.543 (f)	Radiated Spurious Emission (Band 14)		

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/manufacture 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.

Reviewed by: Avis Chuang**Report Producer: Michelle Chen**



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature
General Specs WCDMA/LTE/5G NR, and GNSS.
Antenna Type WWAN: Fixed External Antenna GPS / Glonass / BDS / Galileo: Dipole Antenna

Remark:

1. The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.
2. Maximum allow antenna Gain : refer MPE Report FA370621-01.

Support Band and Evaluated Information	
Supported Band	B2, B4, B5, B7, B12, B13, B14, B17, B25, B26, B41, B66, B71
Evaluated and Tested Band	B7, B12, B13, B14, B25, B26, B41, B66, B71
Band Covered Information	Wider operating frequency band range covers narrower one when the power is worse as follows: ■ B26 cover B5 (Part 22) ■ B25 cover B2 (Part 24) ■ B66 cover B4 (Part 27)

TDD Band Power Class		
	PC3	PC2
B41	V	-

1.2 Modification of EUT

No modifications made to the EUT during the testing.



1.3 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	Sporton Site No. TH03-HY
Test Engineer	Bryant Liu
Temperature (°C)	21.1~23.3
Relative Humidity (%)	49.3~51.7

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	Sporton Site No. 03CH22-HY (TAF Code: 3786)
Test Engineer	Wen-Kai Lu, Karl Hou and Bank Lin
Temperature (°C)	18.9~24.8
Relative Humidity (%)	61.3~70.4
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC Designation No.: TW1190 and TW3786



1.4 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 22(H), 24(E), 27, Part 90(R), Part 90(S)
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

2.1 Test Mode

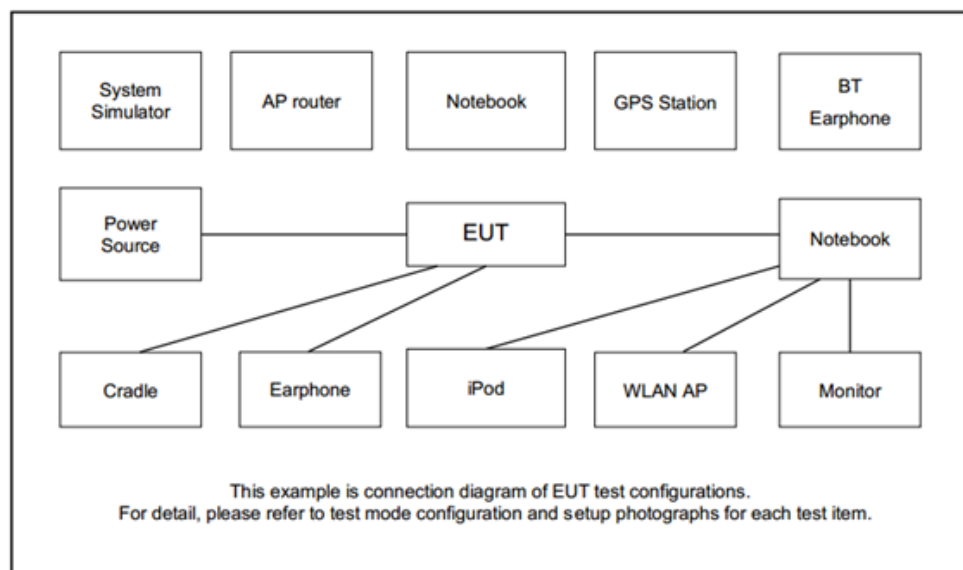
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in two antenna degrees (Ant. Degrees 0 and Ant. Degrees 90), and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

Modulation Type	Modulation
A	QPSK
B	16QAM
C	64QAM
D	256QAM

Test Item	Modulation Type	Bandwidth	RB Size	Channel
Conducted Power	A, B, C, D	All	1, Half, Full	L, M, H
EIRP	A, B, C, D	All	1, Half, Full	L, M, H
PAR	A, B, C, D	Maximum	Full	M
Bandwidth	A, B, C, D	All	Full	M
CBE, Mask (Part 90)	A, B, C, D	All	1RB Full	L, H
CSE	A	All	1RB	L, M, H
Frequency Stability	A	10 MHz or less	Full	M
RSE	A	10 MHz or less	1RB	L, M, H
Remark: 1. Evaluated all the transmitter signal and reporting worst-case configuration among all modulation types. 2. 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	Brand Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power supply	GW Instenk	GPE2323	N/A	N/A	N/A
2.	System Simulator	Anritsu	MT8000A	N/A	N/A	Unshielded, 1.8 m
3.	System Simulator	R&S	CMU200	N/A	N/A	Unshielded, 1.8 m
4.	Notebook	Lenovo	MP2CWSBZ	PD9AX201NG	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	Fixture	WNC	VMC-QSA515MIF	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 and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$



2.5 Frequency List of Low/Middle/High Channels

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3



LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

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 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5
LTE Band 14 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23330	-
	Frequency	-	793	-
5	Channel	23305	23330	23355
	Frequency	790.5	793	795.5
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 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3



LTE Band 26 Channel and Frequency List (Part22H)				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	26865	26915	26965
	Frequency	831.5	836.5	841.5
10	Channel	26840	26915	26990
	Frequency	829.0	836.5	844.0
5	Channel	26815	26915	27015
	Frequency	826.5	836.5	846.5
3	Channel	26805	26915	27025
	Frequency	825.5	836.5	847.5
1.4	Channel	26797	26915	27033
	Frequency	824.7	836.5	848.3

LTE Band 26 Channel and Frequency List (Part90S)				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	26740	-
	Frequency	-	819	-
5	Channel	26715	26740	26765
	Frequency	816.5	819	821.5
3	Channel	26705	26740	26775
	Frequency	815.5	819	822.5
1.4	Channel	26697	26740	26783
	Frequency	814.7	819	823.3



LTE Band 26 Channel and Frequency List (Part90S)				
BW [MHz]	Channel/Frequency(MHz)	Lowest	cross-rule channels	-
15	Channel	26765	26790	-
	Frequency	821.5	824	-
10	Channel	-	26790	-
	Frequency	-	824	-
5	Channel	-	26790	-
	Frequency	-	824	-
3	Channel	-	26790	-
	Frequency	-	824	-
1.4	Channel	-	26790	-
	Frequency	-	824	-

LTE Band 41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	39750	40620	41490
	Frequency	2506.0	2593.0	2680.0
15	Channel	39725	40620	41515
	Frequency	2503.5	2593.0	2682.5
10	Channel	39700	40620	41540
	Frequency	2501.0	2593.0	2685.0
5	Channel	39675	40620	41565
	Frequency	2498.5	2593.0	2687.5



LTE Band 66 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	132072	132322	132572
	Frequency	1720	1745	1770
15	Channel	132047	132322	132597
	Frequency	1717.5	1745	1772.5
10	Channel	132022	132322	132622
	Frequency	1715	1745	1775
5	Channel	131997	132322	132647
	Frequency	1712.5	1745	1777.5
3	Channel	131987	132322	132657
	Frequency	1711.5	1745	1778.5
1.4	Channel	131979	132322	132665
	Frequency	1710.7	1745	1779.3

LTE Band 71 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	133222	133297	133372
	Frequency	673.0	680.5	688.0
15	Channel	133197	133297	133397
	Frequency	670.5	680.5	690.5
10	Channel	133172	133297	133422
	Frequency	668.0	680.5	693.0
5	Channel	133147	133297	133447
	Frequency	665.5	680.5	695.5

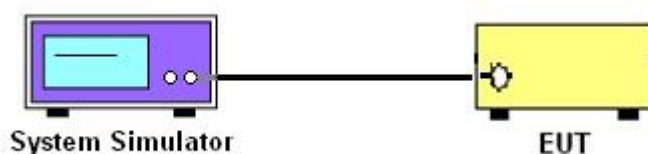
3 Conducted Test Items

3.1 Measuring Instruments

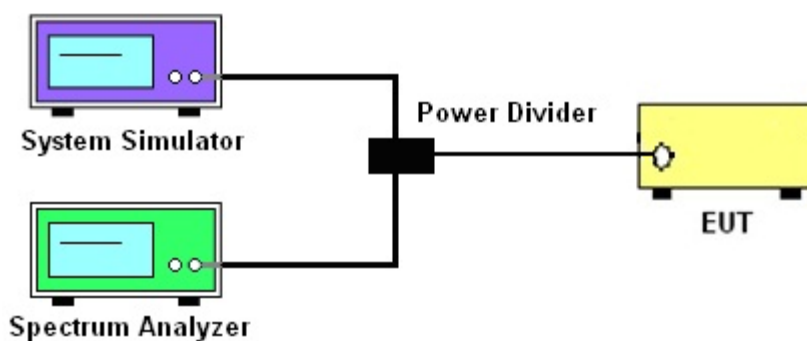
See list of measuring instruments of this test report.

3.1.1 Test Setup

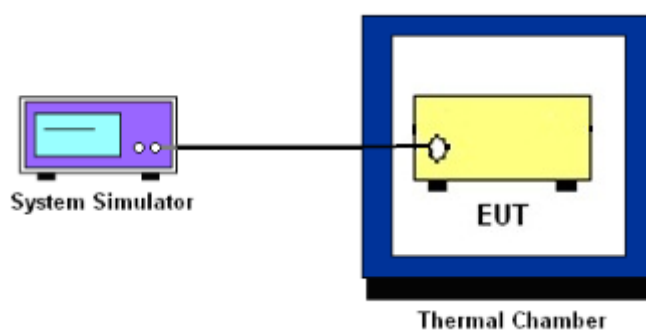
3.1.2 Conducted Output Power



3.1.3 Peak-to-Average Ratio, Occupied Bandwidth ,Conducted Band-Edge, Emission Mask and Conducted Spurious Emission



3.1.4 Frequency Stability



3.1.5 Test Result of Conducted Test

Please refer to Appendix A.



3.2 Conducted Output Power and ERP/EIRP

3.2.1 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 7 Watts for LTE Band 5, Band 26 (Part 22H)

The conducted power of mobile transmitters must not exceed 100 Watts for LTE Band 26 (Part 90S)

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12, Band 13, Band 14, Band 17, Band 71

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2, Band 25, Band 7, Band 41

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4, Band 66

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

3.2.2 Test Procedures

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



3.3 Peak-to-Average Ratio

3.3.1 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.

3.3.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.2.6

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



3.4 Occupied Bandwidth

3.4.1 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.

3.4.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.4.3 (26dB) and Section 5.4.4 (99OB)

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. 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.
3. 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.
4. Set the detection mode to peak, and the trace mode to max hold.
5. 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)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. 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.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.



3.5 Conducted Band Edge

3.5.1 Description of Conducted Band Edge Measurement

22.917(a)

For operations in the 824 – 849 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

24.238 (a)

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

27.53 (c)

For operations in the 776-788 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 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed. In addition, the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least $65 + 10 \log_{10} p(\text{watts})$, dB, for mobile and portable equipment.

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 (h)

For operations in the 1710 – 1755 MHz band, 1755-1780 MHz, the FCC limit is $43 + 10\log_{10}(P[\text{Watts}])$ dB below the transmitter power $P(\text{Watts})$ in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter 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.

90.543(e)

- (1) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $76 + 10 \log (P)$ dB in a 6.25 kHz band segment, for base and fixed stations.
- (2) On all frequencies between 769-775 MHz and 799-805 MHz, by a factor not less than $65 + 10 \log (P)$ dB in a 6.25 kHz band segment, for mobile and portable stations.
- (3) On any frequency between 775-788 MHz, above 805 MHz, and below 758 MHz, by at least $43 + 10 \log (P)$ dB.

3.5.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

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 $\geq 1\%$ 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.



3.6 Emission Mask

3.6.1 Description of Emissions Mask Measurement

For LTE Band 14

Transmitters designed must meet the emission mask comply with the emission mask provisions of FCC Part 90.210(n).

For LTE Band 26

Equipment used in this licensed to EA or non-EA systems shall comply with the emission mask provisions of FCC Part 90.691

(a) Out-of-band emission requirement shall apply only to the "outer" channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows:

(1) For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116 \log_{10}(f/6.1)$ decibels or $50 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(2) For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.



3.6.2 Test Procedures

For LTE Band 14

The testing follows FCC KDB 971168 D01 v03r01 Section 6.0.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The power of the modulated signal was measured on a spectrum analyzer using an RMS and 10 second sweep time in order to maximize the level.
3. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

For LTE Band 26

1. The EUT was connected to spectrum analyzer and base station via power divider.
2. The emissions mask of low and high channels for the highest RF powers were measured.
3. Set RBW and VBW 3 times of RBW to make the measurement with the spectrum analyzer's, and according to KDB 971168 D02 Misc Rev Approve License Devices v02r01 standards, set RBW = 300 Hz to make offsets less than 37.5 kHz from a channel edge , RBW = 100 kHz to make offsets greater than 37.5 kHz, that is allowed.
4. The test results were shown below plots with a correction offset factor including cable loss, insertion loss of power divider.



3.7 Conducted Spurious Emission

3.7.1 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 LTE Band 7, 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.

3.7.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
3. The conducted spurious emission for the whole frequency range was taken.
4. Make the measurement with the spectrum analyzer's RBW = 100 kHz if the authorized frequency band/block is at or below 1 GHz and 1 MHz if the authorized frequency band/block is above 1 GHz, VBW = 3 * RBW.
5. Set spectrum analyzer with RMS detector.
6. Taking the record of maximum spurious emission.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For LTE Band 7, 41

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



3.8 Frequency Stability

3.8.1 Description of Frequency Stability Measurement

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

22.355

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

24.235 & 27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.8.2 Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

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

3.8.3 Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was placed in a temperature chamber at $20\pm 5^{\circ}\text{C}$ and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

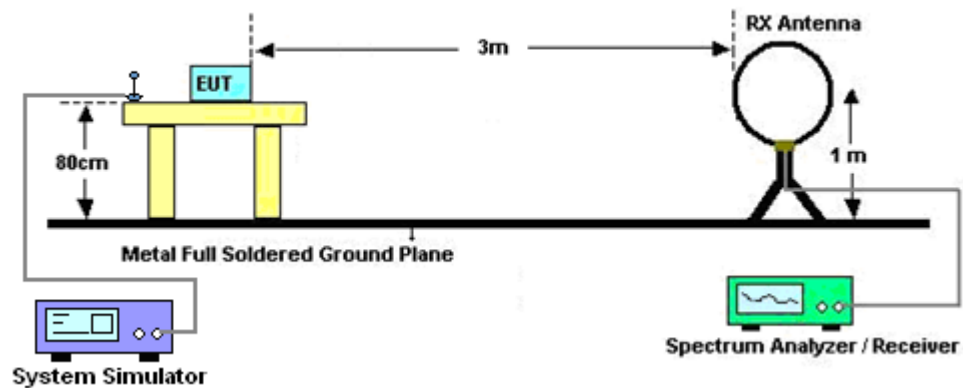
4 Radiated Test Items

4.1 Measuring Instruments

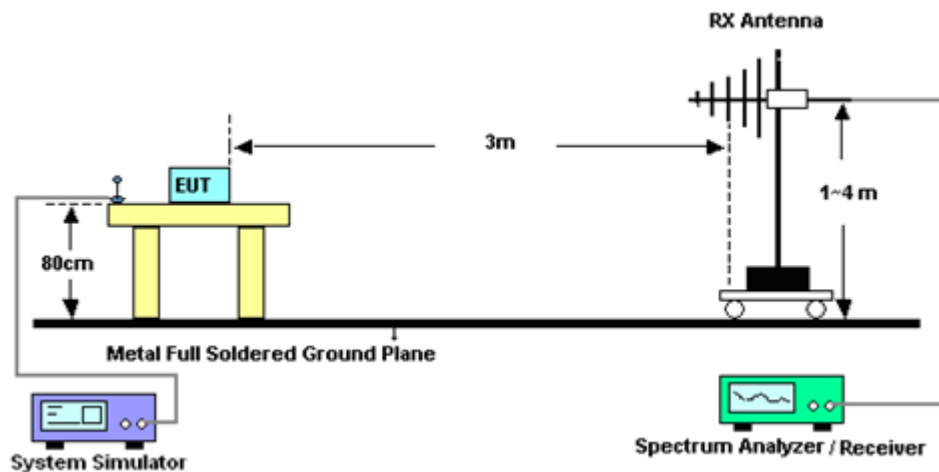
See list of measuring instruments of this test report.

4.1.1 Test Setup

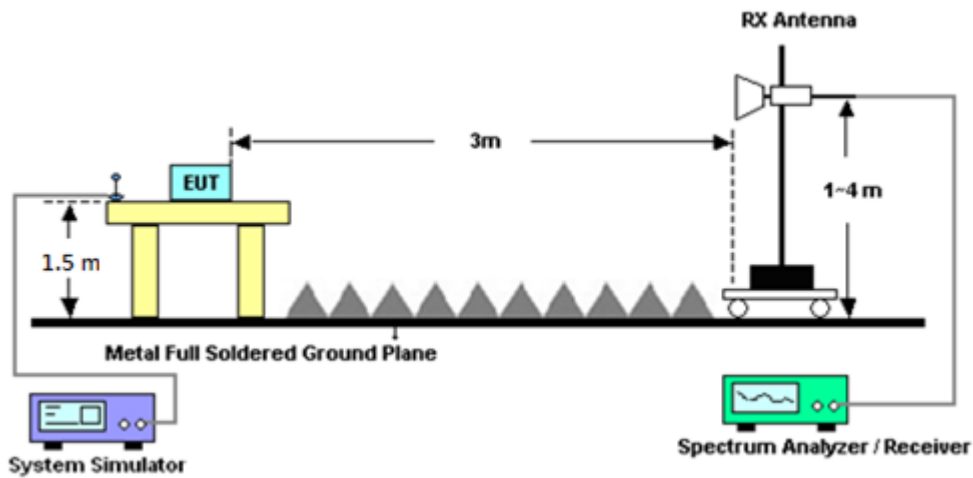
For radiated test below 30MHz



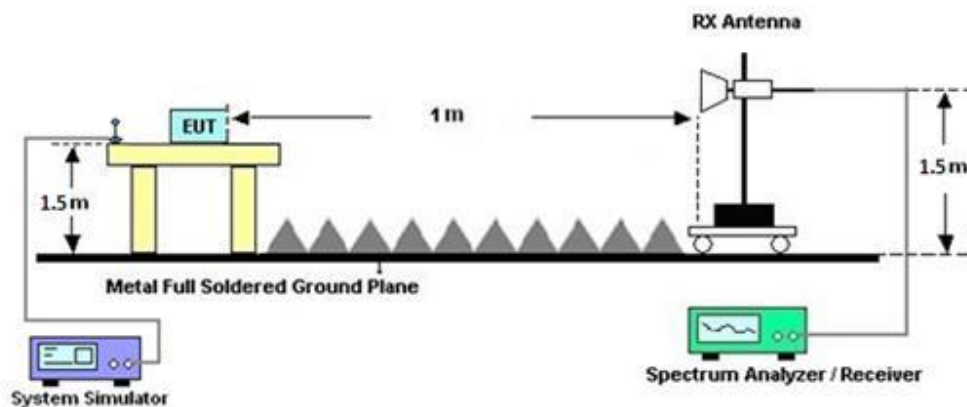
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

Note:

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.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.



4.2 Radiated Spurious Emission Measurement

4.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

For LTE Band 7, 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.

For LTE Band 13

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

For LTE Band 14

For operations in the 758-775 MHz and 788-805 MHz bands, all emissions including harmonics in the band 1559–1610 MHz shall be limited to -70 dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and -80 dBW EIRP for discrete emissions of less than 700 Hz bandwidth. For the purpose of equipment authorization, a transmitter shall be tested with an antenna that is representative of the type that will be used with the equipment in normal operation.

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



4.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI C63.26-2015 section 5.5.4 Radiated measurement using the field strength method.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. To convert spectrum reading E(dBuV/m) to EIRP(dBm)
7. $EIRP(dBm) = Level(dBuV/m) + 20\log(d) - 104.77$, where d is the distance at which field strength limit is specified in the rules
8. $Field\ Strength\ Level(dBm) = Spectrum\ Reading(dBm) + Antenna\ Factor + Cable\ Loss + Read\ Level - Preamplifier\ Factor$.
9. $ERP(dBm) = EIRP(dBm) - 2.15$
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.



5 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Base Station (Measure)	Anritsu	MT8821C	6201664755	LTE FDD/TDD(with 4), LTE-4CC DLCA/2CC ULCA, CatM1/NB1/NB2	Jul. 18, 2023	Oct. 17, 2023~ Nov. 13, 2023	Jul. 17, 2024	Conducted (TH03-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101908	10Hz~40GHz	Sep. 11, 2023	Oct. 17, 2023~ Nov. 13, 2023	Sep. 10, 2024	Conducted (TH03-HY)
Thermal Chamber	ESPEC	SH-241	92003713	-30℃ ~95℃	May 17, 2023	Oct. 17, 2023~ Nov. 13, 2023	May 16, 2024	Conducted (TH03-HY)
DC Power Supply	GW Instek	GPP-2323	GES906037	0V~64V : 0A~6A	Dec. 29, 2022	Oct. 17, 2023~ Nov. 13, 2023	Dec. 28, 2023	Conducted (TH03-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#B	1-18GHz	Jan. 06, 2023	Oct. 17, 2023~ Nov. 13, 2023	Jan. 05, 2024	Conducted (TH03-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Sep. 12, 2023	Oct. 20, 2023~ Nov. 27, 2023	Sep. 11, 2024	Radiation (03CH22-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	40103 & 07	30MHz~1GHz	Apr. 23, 2023	Oct. 20, 2023~ Nov. 27, 2023	Apr. 22, 2024	Radiation (03CH22-HY)
Amplifier	SONOMA	310N	421581	N/A	Jul. 15, 2023	Oct. 20, 2023~ Nov. 27, 2023	Jul. 14, 2024	Radiation (03CH22-HY)
Double Ridged Guide Horn Antenna	RFSPIN	DRH18-E	LE2C04A18EN	1GHz~18GHz	Jul. 12, 2023	Oct. 20, 2023~ Nov. 27, 2023	Jul. 11, 2024	Radiation (03CH22-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	1224	18GHz~40GHz	Jul. 10, 2023	Oct. 20, 2023~ Nov. 27, 2023	Jul. 09, 2024	Radiation (03CH22-HY)
Amplifier	EMEC	EM01G18GA	060877	N/A	Sep. 28, 2023	Oct. 20, 2023~ Nov. 27, 2023	Sep. 27, 2024	Radiation (03CH22-HY)
Preamplifier	EMEC	EM18G40G	060872	18-40GHz	Sep. 06, 2023	Oct. 20, 2023~ Nov. 27, 2023	Sep. 05, 2024	Radiation (03CH22-HY)
Signal Analyzer	Keysight	N9010B	MY60241058	10Hz~44GHz	Jul. 06, 2023	Oct. 20, 2023~ Nov. 27, 2023	Jul. 05, 2024	Radiation (03CH22-HY)
Hygrometer	TECPEL	DTM-303A	TP201998	N/A	Oct. 17, 2023	Oct. 20, 2023~ Nov. 27, 2023	Oct. 16, 2024	Radiation (03CH22-HY)
Controller	EMEC	EM1000	N/A	Control Turn table & Ant Mast	N/A	Oct. 20, 2023~ Nov. 27, 2023	N/A	Radiation (03CH22-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Oct. 20, 2023~ Nov. 27, 2023	N/A	Radiation (03CH22-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Oct. 20, 2023~ Nov. 27, 2023	N/A	Radiation (03CH22-HY)
Software	Audix	E3 6.09824_2019122	RK-002347	N/A	N/A	Oct. 20, 2023~ Nov. 27, 2023	N/A	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	803951/2	9kHz~30MHz	Mar. 07, 2023	Oct. 20, 2023~ Nov. 27, 2023	Mar. 06, 2024	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804390/2,804611/2,804615/2	N/A	Oct. 25, 2022	Oct. 20, 2023~ Oct. 23, 2023	Oct. 24, 2023	Radiation (03CH22-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	804390/2,804611/2,804615/2	N/A	Oct. 24, 2023	Oct. 24, 2023~ Nov. 27, 2023	Oct. 23, 2024	Radiation (03CH22-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Filter	Wainwright	WHKX12-900-1000-15000-60SS	SN8	1GHz High Pass Filter	Nov. 03, 2022	Oct. 20, 2023~Nov. 01, 2023	Nov. 02, 2023	Radiation (03CH22-HY)
Filter	Wainwright	WHKX12-900-1000-15000-60SS	SN8	1GHz High Pass Filter	Nov. 02, 2023	Nov. 02, 2023~Nov. 27, 2023	Nov. 01, 2024	Radiation (03CH22-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN29	1.53GHz Low Pass Filter	May 23, 2023	Oct. 20, 2023~Nov. 27, 2023	May 22, 2024	Radiation (03CH22-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN25	6.75GHz High Pass Filter	Nov. 14, 2022	Oct. 20, 2023~Nov. 12, 2023	Nov. 13, 2023	Radiation (03CH22-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN25	6.75GHz High Pass Filter	Nov. 13, 2023	Nov. 13, 2023~Nov. 27, 2023	Nov. 12, 2024	Radiation (03CH22-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60ST	SN7	N/A	Dec. 02, 2022	Oct. 20, 2023~Nov. 27, 2023	Dec. 01, 2023	Radiation (03CH22-HY)



6 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.97 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.38 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	3.94 dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	22.72	22.99	23.00	23.41	0.2193
20	1	49		22.49	23.05	23.25		
20	1	99		22.81	23.15	23.41		
20	50	0		21.91	22.07	22.27		
20	50	24		21.87	22.18	22.39		
20	50	50		21.83	22.30	22.44		
20	100	0		21.77	22.18	22.43		
20	1	0	16-QAM	22.34	22.50	22.28	22.50	0.1778
20	1	49		21.96	22.08	22.45		
20	1	99		22.26	22.50	22.40		
20	50	0		20.91	21.15	21.23		
20	50	24		20.94	21.22	21.03		
20	50	50		20.85	21.38	21.49		
20	100	0		20.92	21.12	21.36		
20	1	0	64-QAM	21.68	21.14	21.30	21.80	0.1514
20	1	49		21.50	21.48	21.45		
20	1	99		21.80	21.43	21.50		
20	50	0		20.75	20.20	20.23		
20	50	24		20.92	20.24	20.41		
20	50	50		20.87	20.29	20.47		
20	100	0		20.85	20.13	20.32		
Limit	EIRP < 2W			Result			Pass	



LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	22.89	23.10	23.45	23.45	0.2213
15	1	37		22.66	23.14	23.14		
15	1	74		22.85	23.13	23.25		
15	36	0		21.93	22.28	22.33		
15	36	20		21.85	22.27	22.47		
15	36	39		21.89	22.35	22.50		
15	75	0		21.87	22.22	22.44		
15	1	0	16-QAM	22.40	22.48	22.68	22.92	0.1959
15	1	37		21.76	22.50	22.92		
15	1	74		22.12	22.91	22.34		
15	36	0		20.84	21.23	21.49		
15	36	20		20.92	21.33	21.45		
15	36	39		20.94	21.35	21.50		
15	75	0		20.90	21.21	21.45		
15	1	0	64-QAM	20.90	21.33	21.48	21.50	0.1413
15	1	37		21.21	21.22	21.34		
15	1	74		21.42	21.50	21.44		
15	36	0		19.88	20.22	20.41		
15	36	20		19.96	20.24	20.48		
15	36	39		19.98	20.35	20.45		
15	75	0		19.91	20.27	20.50		
Limit	EIRP < 2W			Result			Pass	



LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	22.88	23.17	23.28	23.28	0.2128
10	1	25		22.86	23.17	23.27		
10	1	49		22.74	23.26	23.27		
10	25	0		21.87	22.19	22.39		
10	25	12		21.93	22.27	22.41		
10	25	25		21.83	22.36	22.48		
10	50	0		21.86	22.18	22.34		
10	1	0	16-QAM	22.14	22.37	22.81	22.91	0.1954
10	1	25		22.12	22.37	22.72		
10	1	49		21.93	22.72	22.91		
10	25	0		20.84	21.19	21.33		
10	25	12		20.85	21.29	21.44		
10	25	25		20.90	21.39	21.50		
10	50	0		20.86	21.23	21.38		
10	1	0	64-QAM	21.02	21.70	21.72	22.06	0.1607
10	1	25		21.37	21.73	21.92		
10	1	49		21.09	21.50	22.06		
10	25	0		19.93	20.17	20.40		
10	25	12		19.97	20.28	20.43		
10	25	25		19.91	20.33	20.43		
10	50	0		19.78	20.37	20.41		
Limit	EIRP < 2W			Result			Pass	



LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	22.80	23.15	23.33	23.50	0.2239
5	1	12		22.86	23.19	23.50		
5	1	24		22.79	23.19	23.46		
5	12	0		21.83	22.16	22.45		
5	12	7		21.89	22.23	22.48		
5	12	13		21.91	22.28	22.45		
5	25	0		21.88	22.20	22.39		
5	1	0	16-QAM	22.30	22.50	22.50	22.97	0.1982
5	1	12		22.18	22.78	22.70		
5	1	24		22.17	22.97	22.50		
5	12	0		20.88	21.27	21.45		
5	12	7		20.99	21.31	21.50		
5	12	13		20.92	21.35	21.46		
5	25	0		20.93	21.26	21.42		
5	1	0	64-QAM	21.04	21.68	21.69	21.88	0.1542
5	1	12		21.20	21.77	21.22		
5	1	24		20.95	21.68	21.88		
5	12	0		19.90	20.14	20.48		
5	12	7		19.96	20.41	20.50		
5	12	13		19.92	20.38	20.50		
5	25	0		19.85	20.27	20.42		
Limit	EIRP < 2W			Result			Pass	



LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	22.70	23.04	23.25	23.48	0.2228
3	1	8		22.76	23.22	23.48		
3	1	14		22.81	23.16	23.44		
3	8	0		21.74	22.22	22.47		
3	8	4		21.79	22.20	22.42		
3	8	7		21.83	22.27	22.42		
3	15	0		21.85	22.20	22.41		
3	1	0	16-QAM	22.20	22.50	22.76	23.12	0.2051
3	1	8		22.50	22.50	22.97		
3	1	14		22.10	22.39	23.12		
3	8	0		20.82	21.23	21.44		
3	8	4		20.93	21.35	21.50		
3	8	7		20.90	21.44	21.50		
3	15	0		20.84	21.18	21.44		
3	1	0	64-QAM	20.86	21.37	21.77	21.99	0.1581
3	1	8		21.41	21.24	21.37		
3	1	14		20.92	21.26	21.99		
3	8	0		19.97	20.33	20.39		
3	8	4		19.85	20.39	20.46		
3	8	7		19.84	20.23	20.41		
3	15	0		19.92	20.23	20.41		
Limit	EIRP < 2W			Result			Pass	



LTE Band 2 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	22.75	23.09	23.35	23.44	0.2208
1.4	1	3		22.82	23.18	23.39		
1.4	1	5		22.71	23.12	23.28		
1.4	3	0		22.75	23.10	23.33		
1.4	3	1		22.78	23.28	23.44		
1.4	3	3		22.84	23.15	23.39		
1.4	6	0		21.91	22.13	22.42		
1.4	1	0	16-QAM	22.00	22.48	22.74	22.85	0.1928
1.4	1	3		22.30	22.82	22.85		
1.4	1	5		22.11	22.21	22.82		
1.4	3	0		21.93	22.28	22.46		
1.4	3	1		22.01	22.48	22.50		
1.4	3	3		21.75	22.17	22.50		
1.4	6	0		20.85	21.22	21.29		
1.4	1	0	64-QAM	20.85	21.50	21.28	21.76	0.1500
1.4	1	3		21.21	21.24	21.50		
1.4	1	5		21.10	21.50	21.50		
1.4	3	0		20.99	21.33	21.44		
1.4	3	1		20.93	21.49	21.50		
1.4	3	3		20.90	21.46	21.76		
1.4	6	0		19.82	20.26	20.32		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	22.69	22.87	23.08	23.10	0.2042
20	1	49		22.70	23.06	23.09		
20	1	99		22.58	23.08	23.10		
20	50	0		21.76	21.95	22.14		
20	50	24		21.81	22.01	22.21		
20	50	50		21.76	22.06	22.20		
20	100	0		21.83	22.08	22.15		
20	1	0	16-QAM	22.08	22.07	22.39	22.55	0.1799
20	1	49		21.57	22.21	22.55		
20	1	99		22.00	22.30	22.21		
20	50	0		20.82	21.02	21.11		
20	50	24		20.66	21.04	21.23		
20	50	50		20.82	21.07	21.23		
20	100	0		20.86	21.10	21.28		
20	1	0	64-QAM	20.70	20.74	21.66	21.66	0.1466
20	1	49		20.86	21.41	21.41		
20	1	99		20.97	21.16	21.18		
20	50	0		19.79	20.07	20.26		
20	50	24		19.78	20.16	20.28		
20	50	50		19.72	20.10	20.31		
20	100	0		19.76	20.08	20.35		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	22.74	22.95	23.30	23.30	0.2138
15	1	37		22.59	23.09	23.14		
15	1	74		22.48	23.00	23.19		
15	36	0		21.85	22.04	22.27		
15	36	20		21.81	22.03	22.30		
15	36	39		21.83	22.17	22.33		
15	75	0		21.87	22.13	22.36		
15	1	0	16-QAM	21.96	22.26	22.34	22.93	0.1963
15	1	37		22.28	22.93	22.78		
15	1	74		22.50	22.50	22.50		
15	36	0		20.83	21.09	21.37		
15	36	20		20.92	21.24	21.31		
15	36	39		20.69	21.15	21.20		
15	75	0		20.80	21.07	21.39		
15	1	0	64-QAM	20.83	21.23	23.50	23.50	0.2239
15	1	37		20.85	21.04	21.27		
15	1	74		21.10	21.24	21.75		
15	36	0		19.97	20.14	20.27		
15	36	20		19.78	20.07	20.37		
15	36	39		19.76	20.25	20.24		
15	75	0		19.84	20.09	20.38		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	22.57	22.91	23.19	23.19	0.2084
10	1	25		22.76	23.12	23.15		
10	1	49		22.79	23.12	23.17		
10	25	0		21.83	22.08	22.21		
10	25	12		21.87	22.08	22.25		
10	25	25		21.78	22.13	22.38		
10	50	0		21.78	22.04	22.16		
10	1	0	16-QAM	22.10	22.30	22.00	22.50	0.1778
10	1	25		22.29	22.49	22.50		
10	1	49		21.84	22.38	22.50		
10	25	0		20.87	21.12	21.22		
10	25	12		20.76	21.05	21.40		
10	25	25		20.84	21.22	21.48		
10	50	0		20.79	21.10	21.29		
10	1	0	64-QAM	21.14	20.86	21.17	21.87	0.1538
10	1	25		20.69	21.25	21.87		
10	1	49		21.00	21.04	21.42		
10	25	0		19.93	20.08	20.33		
10	25	12		19.84	20.20	20.25		
10	25	25		19.78	20.32	20.38		
10	50	0		19.87	20.02	20.36		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	22.68	22.97	23.18	23.22	0.2099
5	1	12		22.75	22.99	23.22		
5	1	24		22.69	23.00	23.14		
5	12	0		21.77	22.06	22.24		
5	12	7		21.82	22.07	22.36		
5	12	13		21.83	22.16	22.29		
5	25	0		21.83	22.07	22.23		
5	1	0	16-QAM	22.31	22.35	22.50	22.78	0.1897
5	1	12		22.11	22.37	22.66		
5	1	24		22.13	22.71	22.78		
5	12	0		20.76	21.00	21.32		
5	12	7		20.75	21.18	21.32		
5	12	13		20.75	21.24	21.39		
5	25	0		20.80	20.98	21.33		
5	1	0	64-QAM	20.77	21.50	21.27	21.50	0.1413
5	1	12		21.12	21.08	21.41		
5	1	24		20.79	21.09	21.32		
5	12	0		19.89	20.08	20.29		
5	12	7		19.90	20.06	20.49		
5	12	13		19.84	20.22	20.40		
5	25	0		19.91	20.00	20.31		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	22.79	22.82	23.07	23.37	0.2173
3	1	8		22.84	23.08	23.19		
3	1	14		22.70	23.03	23.37		
3	8	0		21.78	22.03	22.21		
3	8	4		21.75	22.06	22.29		
3	8	7		21.78	22.11	22.37		
3	15	0		21.81	22.04	22.28		
3	1	0	16-QAM	22.02	22.44	22.75	22.77	0.1892
3	1	8		21.90	22.50	22.50		
3	1	14		22.50	22.77	22.66		
3	8	0		20.82	21.10	21.23		
3	8	4		20.85	21.15	21.50		
3	8	7		20.82	21.17	21.44		
3	15	0		20.85	21.14	21.32		
3	1	0	64-QAM	21.07	21.01	21.38	21.89	0.1545
3	1	8		21.02	21.71	21.89		
3	1	14		20.94	21.33	21.79		
3	8	0		19.86	20.09	20.19		
3	8	4		19.87	20.06	20.38		
3	8	7		19.82	20.09	20.31		
3	15	0		19.96	19.96	20.38		
Limit	EIRP < 2W			Result			Pass	



LTE Band 25 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	22.57	22.88	23.06	23.21	0.2094
1.4	1	3		22.68	23.14	23.13		
1.4	1	5		22.70	23.01	23.17		
1.4	3	0		22.60	22.95	23.12		
1.4	3	1		22.70	22.99	23.18		
1.4	3	3		22.66	22.95	23.21		
1.4	6	0		21.80	21.98	22.27		
1.4	1	0	16-QAM	21.60	22.27	22.35	22.76	0.1888
1.4	1	3		22.36	22.16	22.76		
1.4	1	5		22.27	22.24	22.36		
1.4	3	0		21.78	22.10	22.30		
1.4	3	1		21.50	22.16	22.43		
1.4	3	3		21.79	22.03	22.38		
1.4	6	0		20.69	21.11	21.26		
1.4	1	0	64-QAM	20.99	21.31	21.27	21.45	0.1396
1.4	1	3		21.22	21.45	21.34		
1.4	1	5		20.39	21.25	21.42		
1.4	3	0		20.87	21.15	21.19		
1.4	3	1		21.06	21.15	21.21		
1.4	3	3		20.76	21.19	21.34		
1.4	6	0		19.88	20.06	20.31		
Limit	EIRP < 2W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	23.32	23.06	23.24	23.32	0.2148
20	1	49		23.26	22.96	23.03		
20	1	99		23.04	22.94	22.80		
20	50	0		22.48	22.27	22.18		
20	50	24		22.34	22.06	22.20		
20	50	50		22.10	21.94	22.09		
20	100	0		22.24	22.22	22.17		
20	1	0	16-QAM	22.44	22.43	22.50	22.50	0.1778
20	1	49		22.47	22.24	22.41		
20	1	99		22.45	22.38	22.00		
20	50	0		21.42	21.34	21.18		
20	50	24		21.35	21.16	21.21		
20	50	50		21.10	21.06	21.08		
20	100	0		21.28	21.17	21.11		
20	1	0	64-QAM	21.49	21.42	21.38	21.49	0.1409
20	1	49		21.31	21.46	21.40		
20	1	99		21.14	21.06	21.15		
20	50	0		20.43	20.36	20.40		
20	50	24		20.41	20.15	20.28		
20	50	50		20.16	20.02	20.07		
20	100	0		20.35	20.23	20.08		
Limit	EIRP < 1W			Result			Pass	



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LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.45	23.36	23.36	23.45	0.2213
15	1	37		23.29	23.05	23.10		
15	1	74		23.22	23.05	23.07		
15	36	0		22.47	22.31	22.36		
15	36	20		22.30	22.09	22.28		
15	36	39		22.21	22.00	22.24		
15	75	0		22.24	22.23	22.21		
15	1	0	16-QAM	22.72	22.32	22.89	22.89	0.1945
15	1	37		22.67	22.35	22.42		
15	1	74		22.50	22.24	22.50		
15	36	0		21.46	21.33	21.32		
15	36	20		21.24	21.18	21.20		
15	36	39		21.30	21.18	21.04		
15	75	0		21.33	21.26	21.32		
15	1	0	64-QAM	21.83	21.76	21.66	21.83	0.1524
15	1	37		21.44	21.30	21.26		
15	1	74		21.18	20.91	21.32		
15	36	0		20.44	20.37	20.38		
15	36	20		20.40	20.18	20.29		
15	36	39		20.33	20.12	20.20		
15	75	0		20.31	20.27	20.31		
Limit	EIRP < 1W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.34	23.36	23.24	23.39	0.2183
10	1	25		23.39	23.09	22.98		
10	1	49		23.38	23.08	23.22		
10	25	0		22.44	22.26	22.26		
10	25	12		22.44	22.25	22.31		
10	25	25		22.34	22.11	22.23		
10	50	0		22.43	22.23	22.23		
10	1	0	16-QAM	22.45	22.71	22.50	22.96	0.1977
10	1	25		22.96	22.34	22.50		
10	1	49		22.72	22.79	22.21		
10	25	0		21.53	21.22	21.16		
10	25	12		21.32	21.19	21.24		
10	25	25		21.29	21.07	21.22		
10	50	0		21.47	21.23	21.24		
10	1	0	64-QAM	22.00	21.36	21.10	22.00	0.1585
10	1	25		21.48	20.97	21.12		
10	1	49		21.47	21.17	21.31		
10	25	0		20.37	20.26	20.25		
10	25	12		20.37	20.30	20.32		
10	25	25		20.24	20.26	20.23		
10	50	0		20.44	20.08	20.27		
Limit	EIRP < 1W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.28	23.08	23.11	23.35	0.2163
5	1	12		23.32	23.15	23.09		
5	1	24		23.35	23.02	23.13		
5	12	0		22.37	22.24	22.21		
5	12	7		22.46	22.26	22.19		
5	12	13		22.35	22.24	22.16		
5	25	0		22.45	22.22	22.16		
5	1	0	16-QAM	22.32	23.04	22.38	23.04	0.2014
5	1	12		22.40	22.50	22.28		
5	1	24		22.82	22.41	22.11		
5	12	0		21.27	21.17	21.23		
5	12	7		21.44	21.31	21.23		
5	12	13		21.27	21.22	21.19		
5	25	0		21.47	21.26	21.21		
5	1	0	64-QAM	21.50	21.50	21.09	21.95	0.1567
5	1	12		21.95	21.50	21.48		
5	1	24		21.75	21.43	21.50		
5	12	0		20.37	20.29	20.27		
5	12	7		20.46	20.20	20.28		
5	12	13		20.48	20.23	20.23		
5	25	0		20.40	20.28	20.27		
Limit	EIRP < 1W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	23.40	23.27	23.01	23.40	0.2188
3	1	8		23.40	23.12	23.09		
3	1	14		23.32	23.16	23.08		
3	8	0		22.38	22.20	22.11		
3	8	4		22.37	22.25	22.14		
3	8	7		22.30	22.26	22.15		
3	15	0		22.36	22.22	22.15		
3	1	0	16-QAM	22.90	22.71	22.50	22.96	0.1977
3	1	8		22.96	22.48	22.69		
3	1	14		22.50	22.45	22.40		
3	8	0		21.50	21.28	21.33		
3	8	4		21.45	21.15	21.22		
3	8	7		21.50	21.20	21.21		
3	15	0		21.47	21.17	21.26		
3	1	0	64-QAM	21.74	21.32	21.40	21.91	0.1552
3	1	8		21.91	21.50	21.50		
3	1	14		21.83	21.61	21.38		
3	8	0		20.49	20.26	20.11		
3	8	4		20.43	20.39	20.24		
3	8	7		20.37	20.34	20.24		
3	15	0		20.37	20.23	20.16		
Limit	EIRP < 1W			Result			Pass	



LTE Band 4 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	23.26	23.14	22.95	23.37	0.2173
1.4	1	3		23.37	23.07	23.12		
1.4	1	5		23.33	22.96	23.05		
1.4	3	0		23.28	23.16	22.99		
1.4	3	1		23.30	23.20	23.08		
1.4	3	3		23.30	23.14	23.08		
1.4	6	0		22.35	22.16	22.12		
1.4	1	0	16-QAM	22.82	22.50	22.48	22.88	0.1941
1.4	1	3		22.80	22.66	22.70		
1.4	1	5		22.88	22.50	22.50		
1.4	3	0		22.48	22.23	22.05		
1.4	3	1		22.65	22.03	22.16		
1.4	3	3		22.53	22.23	21.90		
1.4	6	0		21.35	21.23	21.23		
1.4	1	0	64-QAM	21.47	21.50	21.38	22.06	0.1607
1.4	1	3		21.76	22.06	21.50		
1.4	1	5		21.86	21.50	21.16		
1.4	3	0		21.50	21.32	21.26		
1.4	3	1		21.49	21.42	21.21		
1.4	3	3		21.48	21.30	21.18		
1.4	6	0		20.35	20.43	20.25		
Limit	EIRP < 1W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.57	23.68	23.58	23.80	0.2399
10	1	25		23.54	23.61	23.65		
10	1	49		23.71	23.77	23.80		
10	25	0		22.63	22.71	22.77		
10	25	12		22.82	22.79	22.85		
10	25	25		22.67	22.75	22.94		
10	50	0		22.75	22.80	22.93		
10	1	0	16-QAM	22.76	22.85	23.20	23.42	0.2198
10	1	25		23.00	23.42	22.57		
10	1	49		22.90	22.62	23.00		
10	25	0		21.64	21.62	21.75		
10	25	12		21.76	21.83	21.94		
10	25	25		21.70	21.92	21.90		
10	50	0		21.71	21.79	21.85		
10	1	0	64-QAM	21.71	21.63	21.96	22.26	0.1683
10	1	25		21.85	21.98	21.92		
10	1	49		21.17	22.26	21.50		
10	25	0		20.72	20.66	20.78		
10	25	12		20.67	20.81	20.98		
10	25	25		20.28	20.84	20.77		
10	50	0		20.68	20.90	20.87		
Limit	ERP < 7W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.60	23.71	23.74	23.74	0.2366
5	1	12		23.57	23.64	23.70		
5	1	24		23.55	23.68	23.73		
5	12	0		22.70	22.80	22.87		
5	12	7		22.65	22.81	22.86		
5	12	13		22.67	22.73	22.83		
5	25	0		22.73	22.73	22.76		
5	1	0	16-QAM	22.99	23.00	22.86	23.25	0.2113
5	1	12		23.25	23.00	23.00		
5	1	24		23.00	23.00	22.78		
5	12	0		21.70	21.92	21.83		
5	12	7		21.79	21.96	21.95		
5	12	13		21.74	21.90	21.94		
5	25	0		21.77	21.87	21.75		
5	1	0	64-QAM	21.79	21.69	22.00	22.00	0.1585
5	1	12		22.00	21.91	21.96		
5	1	24		21.68	21.88	21.38		
5	12	0		20.83	20.70	20.84		
5	12	7		20.84	20.87	20.71		
5	12	13		20.63	20.78	20.38		
5	25	0		20.75	20.81	20.77		
Limit	ERP < 7W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	23.68	23.77	23.73	23.96	0.2489
3	1	8		23.56	23.67	23.96		
3	1	14		23.57	23.57	23.72		
3	8	0		22.64	22.69	22.85		
3	8	4		22.69	22.78	22.82		
3	8	7		22.70	22.68	22.84		
3	15	0		22.64	22.65	22.82		
3	1	0	16-QAM	22.85	23.34	22.66	23.34	0.2158
3	1	8		22.81	23.00	22.99		
3	1	14		22.91	22.90	23.00		
3	8	0		21.72	21.67	21.77		
3	8	4		21.74	21.88	21.92		
3	8	7		21.79	21.69	21.83		
3	15	0		21.72	21.79	21.78		
3	1	0	64-QAM	21.62	21.68	21.90	22.37	0.1726
3	1	8		22.37	21.95	21.39		
3	1	14		22.00	22.00	21.21		
3	8	0		20.67	20.79	20.44		
3	8	4		20.81	20.69	20.36		
3	8	7		20.64	20.80	20.32		
3	15	0		20.73	20.78	20.46		
Limit	ERP < 7W			Result			Pass	



LTE Band 5 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	23.76	23.72	23.85	23.85	0.2427
1.4	1	3		23.64	23.59	23.66		
1.4	1	5		23.63	23.64	23.77		
1.4	3	0		23.67	23.59	23.75		
1.4	3	1		23.55	23.60	23.73		
1.4	3	3		22.66	22.62	21.76		
1.4	6	0		22.68	22.82	22.85		
1.4	1	0	16-QAM	23.32	23.34	22.92	23.34	0.2158
1.4	1	3		22.88	22.88	22.75		
1.4	1	5		22.74	22.64	22.63		
1.4	3	0		22.85	22.72	22.85		
1.4	3	1		22.89	22.80	22.99		
1.4	3	3		21.74	21.66	20.98		
1.4	6	0		21.94	21.82	21.03		
1.4	1	0	64-QAM	21.77	21.79	21.00	21.96	0.1570
1.4	1	3		21.93	21.56	21.08		
1.4	1	5		21.96	21.45	21.16		
1.4	3	0		21.69	21.83	21.07		
1.4	3	1		21.81	21.85	21.02		
1.4	3	3		20.54	20.77	19.20		
1.4	6	0		19.82	20.26	20.32		
Limit	ERP < 7W			Result			Pass	



LTE Band 7 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	23.00	23.41	23.12	23.50	0.2239
20	1	49		23.29	23.50	23.13		
20	1	99		23.43	23.43	23.07		
20	50	0		22.31	22.42	22.18		
20	50	24		22.34	22.50	22.22		
20	50	50		22.45	22.50	22.17		
20	100	0		22.27	22.44	22.17		
20	1	0	16-QAM	22.74	22.50	22.35	22.94	0.1968
20	1	49		22.41	22.91	22.10		
20	1	99		22.43	22.94	22.76		
20	50	0		21.25	21.49	21.13		
20	50	24		21.38	21.38	21.21		
20	50	50		21.29	21.43	21.20		
20	100	0		21.34	21.43	21.23		
20	1	0	64-QAM	20.85	22.02	21.39	22.02	0.1592
20	1	49		21.29	21.95	21.74		
20	1	99		21.50	21.50	21.25		
20	50	0		20.28	20.38	20.19		
20	50	24		20.34	20.50	20.14		
20	50	50		20.36	20.46	20.09		
20	100	0		20.27	20.47	20.21		
Limit	EIRP < 2W			Result			Pass	



LTE Band 7 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.13	23.37	23.16	23.48	0.2228
15	1	37		23.21	23.48	23.04		
15	1	74		23.35	23.38	23.08		
15	36	0		22.21	22.41	22.22		
15	36	20		22.39	22.50	22.24		
15	36	39		22.37	22.50	22.19		
15	75	0		22.39	22.49	22.15		
15	1	0	16-QAM	22.75	22.72	22.25	22.88	0.1941
15	1	37		21.89	22.88	22.45		
15	1	74		22.79	22.65	22.61		
15	36	0		21.37	21.44	21.18		
15	36	20		21.37	21.50	21.24		
15	36	39		21.37	21.49	21.22		
15	75	0		21.42	21.48	21.20		
15	1	0	64-QAM	21.50	21.91	21.25	21.91	0.1552
15	1	37		20.82	21.50	21.12		
15	1	74		21.17	21.91	21.16		
15	36	0		20.27	20.37	20.33		
15	36	20		20.28	20.68	20.20		
15	36	39		20.50	20.50	20.14		
15	75	0		20.36	20.50	20.21		
Limit	EIRP < 2W			Result			Pass	



LTE Band 7 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.07	23.45	23.04	23.50	0.2239
10	1	25		23.24	23.50	22.90		
10	1	49		23.20	23.46	23.10		
10	25	0		22.27	22.47	22.15		
10	25	12		22.25	22.50	22.22		
10	25	25		22.36	22.48	22.14		
10	50	0		22.21	22.45	22.09		
10	1	0	16-QAM	22.23	23.39	22.37	23.39	0.2183
10	1	25		22.63	22.50	22.48		
10	1	49		22.87	22.92	22.50		
10	25	0		21.46	21.32	21.11		
10	25	12		21.40	21.49	21.20		
10	25	25		21.26	21.50	21.18		
10	50	0		21.31	21.50	21.19		
10	1	0	64-QAM	21.41	21.14	21.17	21.84	0.1528
10	1	25		21.41	21.84	21.46		
10	1	49		21.70	21.50	21.25		
10	25	0		20.33	20.38	20.11		
10	25	12		20.43	20.50	20.04		
10	25	25		20.22	20.50	20.14		
10	50	0		20.33	20.60	20.26		
Limit	EIRP < 2W			Result			Pass	



LTE Band 7 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.05	23.39	23.02	23.42	0.2198
5	1	12		23.02	23.38	22.93		
5	1	24		23.17	23.42	23.11		
5	12	0		22.23	22.50	22.16		
5	12	7		22.30	22.49	22.13		
5	12	13		22.23	22.50	22.16		
5	25	0		22.34	22.50	22.18		
5	1	0	16-QAM	22.50	22.66	22.45	23.02	0.2004
5	1	12		22.25	23.02	22.47		
5	1	24		22.43	22.86	22.05		
5	12	0		21.32	21.50	21.13		
5	12	7		21.19	21.48	21.18		
5	12	13		21.29	21.60	21.09		
5	25	0		21.27	21.59	21.12		
5	1	0	64-QAM	21.09	21.97	21.80	22.22	0.1667
5	1	12		21.68	22.22	21.30		
5	1	24		21.25	21.82	21.44		
5	12	0		20.17	20.65	20.27		
5	12	7		20.29	20.50	20.22		
5	12	13		20.33	20.65	20.19		
5	25	0		20.24	20.50	20.08		
Limit	EIRP < 2W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.52	23.44	23.32	23.53	0.2254
10	1	25		23.49	23.48	23.41		
10	1	49		23.51	23.44	23.53		
10	25	0		22.51	22.55	22.47		
10	25	12		22.63	22.58	22.52		
10	25	25		22.65	22.42	22.48		
10	50	0		22.54	22.54	22.62		
10	1	0	16-QAM	23.00	22.87	22.87	23.00	0.1995
10	1	25		22.90	23.00	22.95		
10	1	49		22.90	22.60	22.67		
10	25	0		21.46	21.56	21.54		
10	25	12		21.68	21.53	21.48		
10	25	25		21.56	21.50	21.56		
10	50	0		21.60	21.52	21.59		
10	1	0	64-QAM	21.59	21.44	21.53	22.00	0.1585
10	1	25		22.00	21.30	21.50		
10	1	49		21.08	21.70	21.87		
10	25	0		20.54	20.49	20.54		
10	25	12		20.52	20.67	20.61		
10	25	25		20.35	20.43	20.62		
10	50	0		20.56	20.51	20.56		
Limit	ERP < 3W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.46	23.40	23.31	23.46	0.2218
5	1	12		23.44	23.35	23.36		
5	1	24		23.42	23.43	23.45		
5	12	0		22.50	22.49	22.51		
5	12	7		22.58	22.48	22.57		
5	12	13		22.53	22.49	22.53		
5	25	0		22.53	22.54	22.49		
5	1	0	16-QAM	22.95	22.97	22.82	23.00	0.1995
5	1	12		23.00	22.47	22.97		
5	1	24		22.69	22.85	22.77		
5	12	0		21.54	21.46	21.57		
5	12	7		21.51	21.58	21.52		
5	12	13		21.65	21.50	21.56		
5	25	0		21.62	21.54	21.47		
5	1	0	64-QAM	21.71	22.00	21.43	22.00	0.1585
5	1	12		21.70	21.43	21.93		
5	1	24		21.67	21.69	21.66		
5	12	0		20.48	20.46	20.61		
5	12	7		20.67	20.51	20.69		
5	12	13		20.65	20.64	20.55		
5	25	0		20.51	20.52	20.57		
Limit	ERP < 3W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	23.49	23.40	23.32	23.49	0.2234
3	1	8		23.48	23.47	23.46		
3	1	14		23.41	23.39	23.43		
3	8	0		22.59	22.55	22.46		
3	8	4		22.56	22.53	22.48		
3	8	7		22.51	22.46	22.56		
3	15	0		22.52	22.49	22.47		
3	1	0	16-QAM	22.70	22.96	22.67	23.00	0.1995
3	1	8		22.55	22.88	23.00		
3	1	14		23.00	22.81	22.78		
3	8	0		21.62	21.64	21.44		
3	8	4		21.62	21.63	21.58		
3	8	7		21.55	21.55	21.59		
3	15	0		21.60	21.50	21.48		
3	1	0	64-QAM	21.72	21.71	21.78	22.00	0.1585
3	1	8		21.64	21.74	22.00		
3	1	14		21.77	21.60	21.50		
3	8	0		20.64	20.53	20.54		
3	8	4		20.64	20.70	20.71		
3	8	7		20.51	20.51	20.59		
3	15	0		20.61	20.58	20.55		
Limit	ERP < 3W			Result			Pass	



LTE Band 12 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	23.37	23.38	23.38	23.59	0.2286
1.4	1	3		23.57	23.48	23.59		
1.4	1	5		23.46	23.35	23.29		
1.4	3	0		23.49	23.33	23.31		
1.4	3	1		23.48	23.41	23.35		
1.4	3	3		23.50	23.35	23.33		
1.4	6	0		22.51	22.38	22.39		
1.4	1	0	16-QAM	23.00	22.67	22.70	23.00	0.1995
1.4	1	3		22.95	23.00	22.90		
1.4	1	5		22.83	22.55	22.64		
1.4	3	0		22.72	22.45	22.71		
1.4	3	1		23.00	22.77	22.52		
1.4	3	3		22.79	22.62	22.57		
1.4	6	0		21.47	21.44	21.49		
1.4	1	0	64-QAM	21.71	21.64	21.72	22.00	0.1585
1.4	1	3		21.91	21.58	22.00		
1.4	1	5		21.89	21.33	21.69		
1.4	3	0		21.60	21.47	21.56		
1.4	3	1		21.50	21.62	21.50		
1.4	3	3		21.72	21.60	21.41		
1.4	6	0		20.63	20.57	20.74		
Limit	ERP < 3W			Result			Pass	



LTE Band 13 Maximum Average Power [dBm]										
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)		
10	1	0	QPSK	-	23.69	-	23.69	0.2339		
10	1	25			23.49					
10	1	49			23.42					
10	25	0			22.65					
10	25	12			22.66					
10	25	25			22.64					
10	50	0			22.63					
10	1	0	16-QAM		22.87		-	22.91	0.1954	
10	1	25			22.91					
10	1	49			22.89					
10	25	0			21.68					
10	25	12			21.71					
10	25	25			21.54					
10	50	0			21.66					
10	1	0	64-QAM		22.00			-	22.00	0.1585
10	1	25			21.71					
10	1	49			21.66					
10	25	0			20.75					
10	25	12			20.59					
10	25	25			20.67					
10	50	0			20.62					
Limit	ERP < 3W			Result					Pass	



LTE Band 13 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.66	23.53	23.51	23.66	0.2323
5	1	12		23.45	23.53	23.50		
5	1	24		23.62	23.43	23.39		
5	12	0		22.68	22.68	22.71		
5	12	7		22.77	22.63	22.57		
5	12	13		22.73	22.62	22.47		
5	25	0		22.72	22.60	22.60		
5	1	0	16-QAM	22.49	22.89	22.67	23.00	0.1995
5	1	12		23.00	23.00	22.99		
5	1	24		22.77	22.99	22.76		
5	12	0		21.67	21.66	21.67		
5	12	7		21.79	21.66	21.63		
5	12	13		21.73	21.63	21.62		
5	25	0		21.80	21.66	21.58		
5	1	0	64-QAM	21.99	21.77	22.00	22.00	0.1585
5	1	12		21.98	21.72	21.94		
5	1	24		22.00	21.98	21.71		
5	12	0		20.74	20.66	20.68		
5	12	7		20.58	20.63	20.67		
5	12	13		20.77	20.71	20.45		
5	25	0		20.76	20.70	20.64		
Limit	ERP < 3W			Result			Pass	



LTE Band 17 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.46	23.33	23.32	23.46	0.2218
10	1	25		23.42	23.31	23.37		
10	1	49		23.42	23.34	23.33		
10	25	0		22.42	22.41	22.40		
10	25	12		22.57	22.44	22.40		
10	25	25		22.56	22.48	22.56		
10	50	0		22.45	22.56	22.34		
10	1	0	16-QAM	22.70	22.50	22.39	22.97	0.1982
10	1	25		22.97	22.88	22.62		
10	1	49		22.87	22.95	22.76		
10	25	0		21.50	21.39	21.38		
10	25	12		21.63	21.62	21.43		
10	25	25		21.54	21.58	21.61		
10	50	0		21.55	21.47	21.55		
10	1	0	64-QAM	21.26	21.57	21.87	22.00	0.1585
10	1	25		21.69	22.00	21.81		
10	1	49		21.56	21.78	21.58		
10	25	0		20.60	20.41	20.43		
10	25	12		20.43	20.52	20.44		
10	25	25		20.63	20.63	20.50		
10	50	0		20.50	20.52	20.55		
Limit	ERP < 3W			Result			Pass	



LTE Band 17 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.45	23.29	23.36	23.49	0.2234
5	1	12		23.29	23.40	23.34		
5	1	24		23.49	23.45	23.40		
5	12	0		22.49	22.40	22.47		
5	12	7		22.57	22.56	22.47		
5	12	13		22.55	22.51	22.46		
5	25	0		22.51	22.54	22.41		
5	1	0	16-QAM	22.78	22.72	22.78	22.94	0.1968
5	1	12		22.15	22.78	22.54		
5	1	24		22.41	22.94	22.78		
5	12	0		21.42	21.43	21.48		
5	12	7		21.57	21.61	21.59		
5	12	13		21.54	21.57	21.46		
5	25	0		21.55	21.54	21.37		
5	1	0	64-QAM	21.58	21.36	21.54	21.91	0.1552
5	1	12		21.56	21.70	21.38		
5	1	24		21.91	21.59	21.45		
5	12	0		20.49	20.42	20.59		
5	12	7		20.45	20.46	20.56		
5	12	13		20.62	20.63	20.49		
5	25	0		20.53	20.46	20.52		
Limit	ERP < 3W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.58	23.64	23.62	23.70	0.2344
15	1	37		23.54	23.64	23.49		
15	1	74		23.66	23.70	23.48		
15	36	0		22.80	22.75	22.66		
15	36	20		22.79	22.71	22.67		
15	36	39		22.79	22.76	22.72		
15	75	0		22.72	22.71	22.73		
15	1	0	16-QAM	23.20	23.00	22.77	23.20	0.2089
15	1	37		23.00	22.94	22.98		
15	1	74		22.85	22.62	22.68		
15	36	0		21.82	21.70	21.69		
15	36	20		21.84	21.72	21.57		
15	36	39		21.81	21.78	21.74		
15	75	0		21.86	21.77	21.82		
15	1	0	64-QAM	21.75	21.79	21.77	21.87	0.1538
15	1	37		21.72	21.36	21.87		
15	1	74		21.61	21.47	21.55		
15	36	0		20.75	20.78	20.72		
15	36	20		20.79	20.34	20.81		
15	36	39		20.81	20.53	20.81		
15	75	0		20.81	20.70	20.65		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.88	23.66	23.53	23.88	0.2443
10	1	25		23.57	23.63	23.67		
10	1	49		23.82	23.69	23.58		
10	25	0		22.80	22.74	22.70		
10	25	12		22.81	22.77	22.74		
10	25	25		22.73	22.72	22.70		
10	50	0		22.83	22.77	22.61		
10	1	0	16-QAM	23.00	22.75	23.00	23.47	0.2223
10	1	25		23.47	23.23	22.98		
10	1	49		22.89	22.94	22.66		
10	25	0		21.82	21.68	21.69		
10	25	12		21.78	21.83	21.60		
10	25	25		21.69	21.66	21.64		
10	50	0		21.83	21.66	21.61		
10	1	0	64-QAM	21.90	21.96	22.20	22.24	0.1675
10	1	25		21.68	21.61	21.95		
10	1	49		21.88	22.24	21.24		
10	25	0		20.93	20.54	20.74		
10	25	12		21.00	20.38	20.77		
10	25	25		20.86	20.35	20.79		
10	50	0		20.74	20.52	20.70		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.77	23.59	23.61	23.77	0.2382
5	1	12		23.72	23.74	23.65		
5	1	24		23.68	23.64	23.62		
5	12	0		22.84	22.77	22.72		
5	12	7		22.87	22.78	22.73		
5	12	13		22.78	22.75	22.66		
5	25	0		22.82	22.76	22.58		
5	1	0	16-QAM	23.25	23.00	22.90	23.25	0.2113
5	1	12		23.00	22.98	23.00		
5	1	24		22.97	22.88	22.77		
5	12	0		21.80	21.83	21.82		
5	12	7		21.84	21.87	21.80		
5	12	13		21.81	21.78	21.69		
5	25	0		21.78	21.74	21.58		
5	1	0	64-QAM	21.82	21.97	21.96	22.34	0.1714
5	1	12		22.34	21.26	21.73		
5	1	24		22.00	21.50	22.00		
5	12	0		20.76	20.39	20.64		
5	12	7		20.87	20.26	20.64		
5	12	13		20.80	20.35	20.34		
5	25	0		20.89	20.25	20.60		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	23.71	23.58	23.70	23.79	0.2393
3	1	8		23.79	23.73	23.69		
3	1	14		23.71	23.59	23.55		
3	8	0		22.81	22.72	22.69		
3	8	4		22.80	22.77	22.65		
3	8	7		22.79	22.65	22.70		
3	15	0		22.80	22.76	22.71		
3	1	0	16-QAM	22.40	22.83	22.75	23.00	0.1995
3	1	8		23.00	23.00	22.80		
3	1	14		22.77	23.00	22.84		
3	8	0		22.00	21.80	21.68		
3	8	4		21.86	21.84	21.77		
3	8	7		21.91	21.64	21.68		
3	15	0		21.99	21.74	21.70		
3	1	0	64-QAM	21.90	21.52	21.80	22.00	0.1585
3	1	8		22.00	21.12	21.41		
3	1	14		21.90	21.43	21.51		
3	8	0		20.93	20.28	20.48		
3	8	4		21.00	20.36	20.30		
3	8	7		20.70	20.25	20.32		
3	15	0		20.80	20.15	20.36		
Limit	ERP < 7W			Result			Pass	



LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	23.52	23.49	23.52	23.69	0.2339
1.4	1	3		23.65	23.68	23.48		
1.4	1	5		23.65	23.52	23.48		
1.4	3	0		23.69	23.57	23.49		
1.4	3	1		23.66	23.60	23.58		
1.4	3	3		23.68	23.51	23.52		
1.4	6	0		22.73	22.63	22.55		
1.4	1	0	16-QAM	23.00	22.66	23.00	23.32	0.2148
1.4	1	3		22.95	22.89	22.76		
1.4	1	5		23.32	22.86	22.79		
1.4	3	0		22.99	22.71	22.80		
1.4	3	1		23.00	22.85	22.63		
1.4	3	3		22.89	22.72	22.62		
1.4	6	0		21.95	21.67	21.64		
1.4	1	0	64-QAM	21.62	21.82	21.59	22.23	0.1671
1.4	1	3		22.23	21.57	21.49		
1.4	1	5		22.00	21.39	21.35		
1.4	3	0		22.00	21.35	21.39		
1.4	3	1		21.85	21.23	21.38		
1.4	3	3		21.86	21.38	21.35		
1.4	6	0		21.00	20.24	20.37		
Limit	ERP < 7W			Result			Pass	



LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	23.13	23.23	23.16	23.48	0.2228
20	1	49		23.16	23.23	23.21		
20	1	99		23.08	23.48	23.39		
20	50	0		22.19	22.46	22.44		
20	50	24		22.27	22.33	22.39		
20	50	50		22.15	22.39	22.30		
20	100	0		22.10	22.29	22.36		
20	1	0	16-QAM	22.28	22.36	22.50	22.77	0.1892
20	1	49		22.18	22.19	22.45		
20	1	99		22.44	22.77	22.45		
20	50	0		21.22	21.40	21.37		
20	50	24		21.30	21.38	21.38		
20	50	50		21.13	21.47	21.29		
20	100	0		21.11	21.34	21.37		
20	1	0	64-QAM	21.23	20.91	21.14	21.49	0.1409
20	1	49		20.99	21.19	21.12		
20	1	99		21.17	21.49	21.49		
20	50	0		20.31	20.43	20.39		
20	50	24		20.34	20.41	20.46		
20	50	50		20.09	20.48	20.31		
20	100	0		20.11	20.27	20.41		
Limit	EIRP < 2W			Result			Pass	



LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.01	23.35	23.23	23.42	0.2198
15	1	37		23.06	23.29	23.29		
15	1	74		23.12	23.42	23.29		
15	36	0		22.26	22.38	22.43		
15	36	20		22.15	22.42	22.33		
15	36	39		22.15	22.35	22.35		
15	75	0		22.13	22.36	22.40		
15	1	0	16-QAM	22.16	22.06	22.39	22.49	0.1774
15	1	37		22.11	22.33	22.49		
15	1	74		22.14	22.15	22.30		
15	36	0		21.18	21.46	21.35		
15	36	20		21.16	21.30	21.36		
15	36	39		21.13	21.34	21.30		
15	75	0		21.15	21.33	21.48		
15	1	0	64-QAM	21.70	21.19	21.35	21.70	0.1479
15	1	37		21.37	21.21	21.43		
15	1	74		20.81	21.49	21.49		
15	36	0		20.25	20.45	20.49		
15	36	20		20.22	20.43	20.37		
15	36	39		20.17	20.37	20.40		
15	75	0		20.14	20.30	20.44		
Limit	EIRP < 2W			Result			Pass	



LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.11	23.28	23.27	23.34	0.2158
10	1	25		23.15	23.25	23.28		
10	1	49		23.20	23.18	23.34		
10	25	0		22.12	22.29	22.37		
10	25	12		22.17	22.30	22.42		
10	25	25		22.14	22.26	22.38		
10	50	0		22.19	22.25	22.36		
10	1	0	16-QAM	22.66	22.43	21.96	22.66	0.1845
10	1	25		22.24	22.12	22.49		
10	1	49		22.22	22.16	22.48		
10	25	0		21.23	21.41	21.36		
10	25	12		21.19	21.26	21.44		
10	25	25		21.14	21.13	21.39		
10	50	0		21.10	21.26	21.39		
10	1	0	64-QAM	21.22	21.20	21.31	21.66	0.1466
10	1	25		21.07	21.66	21.11		
10	1	49		20.93	21.44	21.49		
10	25	0		20.27	20.32	20.43		
10	25	12		20.27	20.31	20.48		
10	25	25		20.29	20.29	20.39		
10	50	0		20.21	20.23	20.34		
Limit	EIRP < 2W			Result			Pass	



LTE Band 41 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.14	23.25	23.27	23.38	0.2178
5	1	12		23.15	23.38	23.35		
5	1	24		23.13	23.38	23.24		
5	12	0		22.19	22.45	22.40		
5	12	7		22.22	22.46	22.45		
5	12	13		22.17	22.45	22.39		
5	25	0		22.20	22.35	22.42		
5	1	0	16-QAM	22.20	22.38	22.69	22.69	0.1858
5	1	12		21.72	22.31	22.44		
5	1	24		22.24	22.49	22.31		
5	12	0		21.32	21.44	21.36		
5	12	7		21.26	21.45	21.44		
5	12	13		21.23	21.36	21.50		
5	25	0		21.19	21.36	21.43		
5	1	0	64-QAM	21.09	21.73	21.47	21.93	0.1560
5	1	12		20.83	21.35	21.93		
5	1	24		21.39	21.31	21.38		
5	12	0		20.22	20.44	20.39		
5	12	7		20.15	20.47	20.47		
5	12	13		20.30	20.32	20.47		
5	25	0		20.16	20.34	20.42		
Limit	EIRP < 2W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	23.22	23.14	23.10	23.28	0.2128
20	1	49		23.08	22.80	23.10		
20	1	99		22.83	22.99	23.28		
20	50	0		22.21	22.01	22.30		
20	50	24		22.19	22.04	22.31		
20	50	50		22.02	22.02	22.33		
20	100	0		22.14	22.03	22.17		
20	1	0	16-QAM	22.97	22.77	22.50	22.97	0.1982
20	1	49		22.77	22.27	22.48		
20	1	99		22.17	22.40	22.50		
20	50	0		21.26	21.09	21.27		
20	50	24		21.20	21.04	21.37		
20	50	50		21.15	20.91	21.39		
20	100	0		21.20	21.01	21.41		
20	1	0	64-QAM	21.49	21.34	20.80	21.80	0.1514
20	1	49		21.47	21.23	21.80		
20	1	99		21.12	21.17	21.38		
20	50	0		20.26	20.14	20.25		
20	50	24		20.23	20.13	20.24		
20	50	50		20.10	20.06	20.36		
20	100	0		20.25	20.13	20.28		
Limit	EIRP < 1W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.28	22.96	23.31	23.38	0.2178
15	1	37		23.12	23.05	23.38		
15	1	74		23.10	22.92	23.31		
15	36	0		22.31	22.07	22.35		
15	36	20		22.14	22.08	22.44		
15	36	39		22.14	22.11	22.49		
15	75	0		22.26	22.14	22.40		
15	1	0	16-QAM	22.60	22.28	22.70	22.85	0.1928
15	1	37		22.60	22.43	22.85		
15	1	74		22.43	21.70	22.59		
15	36	0		21.26	21.13	21.41		
15	36	20		21.21	21.08	21.44		
15	36	39		21.25	21.08	21.42		
15	75	0		21.30	21.10	21.44		
15	1	0	64-QAM	21.77	21.50	21.49	21.93	0.1560
15	1	37		21.47	21.14	21.34		
15	1	74		21.93	20.94	21.78		
15	36	0		20.42	20.20	20.32		
15	36	20		20.15	20.08	20.47		
15	36	39		20.16	20.15	20.50		
15	75	0		20.25	20.20	20.48		
Limit	EIRP < 1W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.38	23.12	23.33	23.40	0.2188
10	1	25		23.20	22.84	23.40		
10	1	49		23.02	22.95	23.40		
10	25	0		22.27	22.16	22.40		
10	25	12		22.33	22.14	22.46		
10	25	25		22.19	22.07	22.42		
10	50	0		22.26	22.10	22.39		
10	1	0	16-QAM	22.25	22.75	23.04	23.04	0.2014
10	1	25		22.49	22.19	22.69		
10	1	49		22.09	22.50	22.79		
10	25	0		21.34	21.18	21.50		
10	25	12		21.36	21.13	21.26		
10	25	25		21.21	21.14	21.50		
10	50	0		21.25	21.05	21.43		
10	1	0	64-QAM	21.28	21.18	21.84	21.84	0.1528
10	1	25		21.34	20.93	21.48		
10	1	49		21.02	21.07	21.42		
10	25	0		20.29	20.13	20.46		
10	25	12		20.27	20.14	20.37		
10	25	25		20.21	20.08	20.43		
10	50	0		20.30	20.07	20.36		
Limit	EIRP < 1W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.17	22.96	23.12	23.46	0.2218
5	1	12		23.20	22.93	23.46		
5	1	24		22.96	22.90	23.38		
5	12	0		22.34	22.07	22.42		
5	12	7		22.29	22.10	22.50		
5	12	13		22.18	21.98	22.50		
5	25	0		22.25	22.02	22.42		
5	1	0	16-QAM	22.48	22.42	22.30	22.88	0.1941
5	1	12		22.63	22.31	22.40		
5	1	24		22.50	22.25	22.88		
5	12	0		21.26	21.12	21.39		
5	12	7		21.39	21.10	21.50		
5	12	13		21.20	21.03	21.48		
5	25	0		21.23	21.12	21.38		
5	1	0	64-QAM	21.74	21.40	21.38	21.83	0.1524
5	1	12		21.50	21.08	21.28		
5	1	24		21.27	21.60	21.83		
5	12	0		20.38	20.06	20.24		
5	12	7		20.31	20.11	20.50		
5	12	13		20.28	20.03	20.61		
5	25	0		20.29	20.14	20.45		
Limit	EIRP < 1W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	23.20	22.90	23.43	23.50	0.2239
3	1	8		23.28	22.94	23.50		
3	1	14		23.17	22.99	23.48		
3	8	0		22.27	21.98	22.45		
3	8	4		22.27	22.05	22.48		
3	8	7		22.24	22.03	22.50		
3	15	0		22.26	22.02	22.43		
3	1	0	16-QAM	22.45	22.39	22.82	23.03	0.2009
3	1	8		22.88	22.39	23.03		
3	1	14		22.82	22.36	22.74		
3	8	0		21.50	21.15	21.50		
3	8	4		21.27	21.03	21.60		
3	8	7		21.37	21.02	21.60		
3	15	0		21.32	21.09	21.50		
3	1	0	64-QAM	21.74	21.25	21.92	21.92	0.1556
3	1	8		21.71	21.50	21.81		
3	1	14		21.45	21.16	21.72		
3	8	0		20.33	20.12	20.50		
3	8	4		20.23	20.07	20.74		
3	8	7		20.41	20.04	20.50		
3	15	0		20.37	20.03	20.50		
Limit	EIRP < 1W			Result			Pass	



LTE Band 66 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	23.13	22.88	23.37	23.45	0.2213
1.4	1	3		23.18	22.91	23.45		
1.4	1	5		23.18	22.79	23.35		
1.4	3	0		23.11	22.93	23.30		
1.4	3	1		23.19	22.92	23.36		
1.4	3	3		23.21	22.94	23.40		
1.4	6	0		22.23	21.98	22.47		
1.4	1	0	16-QAM	22.78	22.39	22.66	23.02	0.2004
1.4	1	3		22.75	22.37	23.02		
1.4	1	5		22.20	22.63	22.50		
1.4	3	0		22.23	22.17	22.50		
1.4	3	1		22.38	22.15	22.73		
1.4	3	3		22.39	22.19	22.80		
1.4	6	0		21.30	21.04	21.50		
1.4	1	0	64-QAM	21.50	21.26	21.50	21.78	0.1507
1.4	1	3		21.36	21.09	21.78		
1.4	1	5		21.50	20.90	21.50		
1.4	3	0		21.46	21.14	21.66		
1.4	3	1		21.34	21.06	21.74		
1.4	3	3		21.43	20.96	21.63		
1.4	6	0		20.30	20.09	20.50		
Limit	EIRP < 1W			Result			Pass	



LTE Band 71 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
20	1	0	QPSK	23.31	23.23	23.35	23.48	0.2228
20	1	49		23.42	23.41	23.38		
20	1	99		23.48	23.43	23.35		
20	50	0		22.39	22.50	22.50		
20	50	24		22.50	22.46	22.50		
20	50	50		22.61	22.48	22.42		
20	100	0		22.55	22.38	22.48		
20	1	0	16-QAM	23.18	22.75	22.86	23.18	0.2080
20	1	49		22.83	22.65	22.50		
20	1	99		22.68	22.98	22.66		
20	50	0		21.47	21.32	21.50		
20	50	24		21.48	21.50	21.48		
20	50	50		21.49	21.60	21.50		
20	100	0		21.50	21.37	21.50		
20	1	0	64-QAM	21.50	21.79	21.50	21.95	0.1567
20	1	49		21.60	21.95	21.59		
20	1	99		21.49	21.84	21.70		
20	50	0		20.36	20.50	20.62		
20	50	24		20.50	20.50	20.49		
20	50	50		20.50	20.49	20.48		
20	100	0		20.50	20.49	20.47		
Limit	ERP < 3W			Result			Pass	



LTE Band 71 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.40	23.30	23.40	23.40	0.2188
15	1	37		23.26	23.38	23.37		
15	1	74		23.31	23.39	23.29		
15	36	0		22.35	22.50	22.38		
15	36	20		22.43	22.38	22.45		
15	36	39		22.49	22.43	22.42		
15	75	0		22.51	22.37	22.36		
15	1	0	16-QAM	22.65	22.57	22.66	22.82	0.1914
15	1	37		22.82	22.70	22.78		
15	1	74		22.58	22.42	22.64		
15	36	0		21.42	21.51	21.47		
15	36	20		21.45	21.43	21.60		
15	36	39		21.39	21.38	21.49		
15	75	0		21.47	21.37	21.36		
15	1	0	64-QAM	21.79	21.86	21.83	21.86	0.1535
15	1	37		21.64	21.47	21.67		
15	1	74		21.63	21.75	21.77		
15	36	0		20.48	20.51	20.46		
15	36	20		20.44	20.40	20.46		
15	36	39		20.49	20.44	20.50		
15	75	0		20.49	20.57	20.33		
Limit	ERP < 3W			Result			Pass	



LTE Band 71 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	23.46	23.39	23.32	23.46	0.2218
10	1	25		23.18	23.37	23.38		
10	1	49		23.15	23.25	23.31		
10	25	0		22.40	22.43	22.38		
10	25	12		22.44	22.35	22.49		
10	25	25		22.42	22.57	22.43		
10	50	0		22.42	22.37	22.45		
10	1	0	16-QAM	22.82	22.35	22.96	22.96	0.1977
10	1	25		22.40	22.48	22.13		
10	1	49		22.67	22.81	22.69		
10	25	0		21.40	21.37	21.43		
10	25	12		21.40	21.40	21.52		
10	25	25		21.35	21.47	21.36		
10	50	0		21.33	21.48	21.40		
10	1	0	64-QAM	21.46	21.65	21.73	21.73	0.1489
10	1	25		21.15	21.46	21.52		
10	1	49		21.38	21.63	21.60		
10	25	0		20.51	20.56	20.42		
10	25	12		20.29	20.44	20.52		
10	25	25		20.36	20.53	20.54		
10	50	0		20.36	20.42	20.44		
Limit	ERP < 3W			Result			Pass	



LTE Band 71 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.34	23.43	23.53	23.53	0.2254
5	1	12		23.39	23.41	23.45		
5	1	24		23.31	23.32	23.29		
5	12	0		22.50	22.50	22.38		
5	12	7		22.40	22.46	22.47		
5	12	13		22.32	22.44	22.33		
5	25	0		22.41	22.38	22.34		
5	1	0	16-QAM	22.92	22.90	23.04	23.04	0.2014
5	1	12		22.68	22.56	22.71		
5	1	24		22.96	22.93	22.55		
5	12	0		21.60	21.54	21.37		
5	12	7		21.41	21.33	21.37		
5	12	13		21.37	21.71	21.42		
5	25	0		21.44	21.36	21.35		
5	1	0	64-QAM	21.36	21.54	22.12	22.16	0.1644
5	1	12		21.78	21.90	21.73		
5	1	24		21.67	21.57	22.16		
5	12	0		20.59	20.55	20.48		
5	12	7		20.50	20.40	20.45		
5	12	13		20.35	20.50	20.41		
5	25	0		20.47	20.44	20.38		
Limit	ERP < 3W			Result			Pass	



FCC RADIO TEST REPORT

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LTE Band 14 Maximum Average Power [dBm]									
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)	
10	1	0	QPSK	-	23.43	-	23.48	0.2228	
10	1	25			23.41				
10	1	49			23.48				
10	25	0			22.28				
10	25	12			22.51				
10	25	25			22.36				
10	50	0			22.48				
10	1	0	16-QAM		22.93		-	22.93	0.1963
10	1	25			22.71				
10	1	49			22.70				
10	25	0			21.49				
10	25	12			21.51				
10	25	25			21.40				
10	50	0			21.47				
10	1	0	64-QAM	21.74	-	21.96		0.1570	
10	1	25		21.96					
10	1	49		21.77					
10	25	0		20.44					
10	25	12		20.52					
10	25	25		20.66					
10	50	0		20.53					
Limit	ERP < 3W			Result			Pass		



LTE Band 14 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.44	23.47	23.28	23.47	0.2223
5	1	12		23.35	23.40	23.41		
5	1	24		23.30	23.39	23.44		
5	12	0		22.43	22.40	22.36		
5	12	7		22.49	22.48	22.56		
5	12	13		22.44	22.45	22.47		
5	25	0		22.47	22.48	22.45		
5	1	0	16-QAM	23.00	22.98	22.96	23.00	0.1995
5	1	12		22.75	22.77	22.84		
5	1	24		22.59	22.76	22.89		
5	12	0		21.61	21.51	21.45		
5	12	7		21.58	21.59	21.54		
5	12	13		21.46	21.46	21.48		
5	25	0		21.47	21.50	21.42		
5	1	0	64-QAM	21.42	21.55	21.71	22.00	0.1585
5	1	12		21.82	21.16	22.00		
5	1	24		21.57	21.86	21.58		
5	12	0		20.56	20.36	20.38		
5	12	7		20.54	20.57	20.56		
5	12	13		20.40	20.53	20.44		
5	25	0		20.49	20.37	20.39		
Limit	ERP < 3W			Result			Pass	



Par90S LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	23.39	-	-	23.55	0.2265
15	1	37		23.47	-	-		
15	1	74		23.55	-	-		
15	36	0		22.64	-	-		
15	36	20		22.78	-	-		
15	36	39		22.59	-	-		
15	75	0		22.57	-	-		
15	1	0	16-QAM	23.13	-	-	23.13	0.2056
15	1	37		22.91	-	-		
15	1	74		22.69	-	-		
15	36	0		21.73	-	-		
15	36	20		21.84	-	-		
15	36	39		21.63	-	-		
15	75	0		21.78	-	-		
15	1	0	64-QAM	21.72	-	-	21.72	0.1486
15	1	37		21.68	-	-		
15	1	74		21.61	-	-		
15	36	0		20.75	-	-		
15	36	20		20.61	-	-		
15	36	39		20.78	-	-		
15	75	0		20.62	-	-		
Limit	Power < 100W			Result			Pass	



Par90S LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	-	23.57	-	23.60	0.2291
10	1	25		-	23.49	-		
10	1	49		-	23.60	-		
10	25	0		-	22.67	-		
10	25	12		-	22.75	-		
10	25	25		-	22.69	-		
10	50	0		-	22.67	-		
10	1	0	16-QAM	-	22.55	-	23.17	0.2075
10	1	25		-	23.17	-		
10	1	49		-	22.79	-		
10	25	0		-	21.55	-		
10	25	12		-	21.71	-		
10	25	25		-	21.56	-		
10	50	0	-	21.57	-	22.07	0.1611	
10	1	0	64-QAM	-	21.91			-
10	1	25		-	21.51			-
10	1	49		-	22.07			-
10	25	0		-	20.42			-
10	25	12		-	20.32			-
10	25	25		-	20.31			-
10	50	0		-	20.52	-		
Limit	Power < 100W			Result			Pass	



Par90S LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	23.67	23.43	23.44	23.74	0.2366
5	1	12		23.64	23.74	23.49		
5	1	24		23.48	23.58	23.43		
5	12	0		22.71	22.67	22.53		
5	12	7		22.71	22.64	22.70		
5	12	13		22.64	22.71	22.48		
5	25	0		22.73	22.58	22.57		
5	1	0	16-QAM	23.20	22.84	22.82	23.20	0.2089
5	1	12		22.81	22.95	22.97		
5	1	24		22.90	22.87	22.57		
5	12	0		21.62	21.82	21.77		
5	12	7		21.80	21.67	21.64		
5	12	13		21.80	21.66	21.63		
5	25	0		21.76	21.60	21.53		
5	1	0	64-QAM	21.81	21.91	21.89	22.25	0.1679
5	1	12		22.25	21.16	21.54		
5	1	24		21.98	21.31	21.85		
5	12	0		20.63	20.38	20.51		
5	12	7		20.84	20.07	20.50		
5	12	13		20.66	20.31	20.23		
5	25	0		20.87	20.24	20.49		
Limit	Power < 100W			Result			Pass	



Par90S LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	23.53	23.55	23.64	23.70	0.2344
3	1	8		23.64	23.61	23.50		
3	1	14		23.70	23.58	23.40		
3	8	0		22.66	22.70	22.56		
3	8	4		22.64	22.72	22.45		
3	8	7		22.79	22.58	22.54		
3	15	0		22.61	22.72	22.56		
3	1	0	16-QAM	22.38	22.71	22.64	22.83	0.1919
3	1	8		22.83	22.82	22.79		
3	1	14		22.64	22.83	22.68		
3	8	0		21.94	21.74	21.60		
3	8	4		21.72	21.75	21.72		
3	8	7		21.91	21.54	21.61		
3	15	0		21.85	21.70	21.70		
3	1	0	64-QAM	21.88	21.38	21.67	21.88	0.1542
3	1	8		21.80	20.99	21.26		
3	1	14		21.81	21.24	21.48		
3	8	0		20.76	20.13	20.35		
3	8	4		20.87	20.22	20.30		
3	8	7		20.54	20.10	20.18		
3	15	0		20.67	20.03	20.22		
Limit	Power < 100W			Result			Pass	



Par90S LTE Band 26 Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	23.38	23.32	23.47	23.69	0.2339
1.4	1	3		23.46	23.51	23.45		
1.4	1	5		23.48	23.38	23.46		
1.4	3	0		23.69	23.48	23.42		
1.4	3	1		23.61	23.58	23.58		
1.4	3	3		23.62	23.41	23.38		
1.4	6	0		22.70	22.51	22.37		
1.4	1	0	16-QAM	23.00	22.65	22.84	23.28	0.2128
1.4	1	3		22.92	22.71	22.60		
1.4	1	5		23.28	22.86	22.72		
1.4	3	0		22.99	22.52	22.61		
1.4	3	1		22.87	22.72	22.49		
1.4	3	3		22.89	22.61	22.56		
1.4	6	0		21.75	21.63	21.54		
1.4	1	0	64-QAM	21.52	21.74	21.46	22.12	0.1629
1.4	1	3		22.12	21.38	21.47		
1.4	1	5		21.95	21.35	21.33		
1.4	3	0		21.85	21.22	21.39		
1.4	3	1		21.71	21.17	21.34		
1.4	3	3		21.81	21.29	21.21		
1.4	6	0		20.80	20.08	20.22		
Limit	Power < 100W			Result			Pass	



LTE Band 26 Straddle Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
15	1	0	QPSK	-	23.66	-	23.67	0.2328
15	1	37		-	23.54	-		
15	1	74		-	23.67	-		
15	36	0		-	22.85	-		
15	36	20		-	22.86	-		
15	36	39		-	22.75	-		
15	75	0		-	22.82	-		
15	1	0	16-QAM	-	23.25	-	23.25	0.2113
15	1	37		-	23.10	-		
15	1	74		-	22.94	-		
15	36	0		-	21.79	-		
15	36	20		-	21.79	-		
15	36	39		-	21.72	-		
15	75	0		-	21.86	-		
15	1	0	64-QAM	-	21.76	-	21.76	0.1500
15	1	37		-	21.70	-		
15	1	74		-	21.66	-		
15	36	0		-	20.68	-		
15	36	20		-	20.75	-		
15	36	39		-	20.72	-		
15	75	0		-	20.91	-		
Limit	Reporting only			Result			N/A	



LTE Band 26 Straddle Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
10	1	0	QPSK	-	23.78	-	23.87	0.2438
10	1	25		-	23.51	-		
10	1	49		-	23.87	-		
10	25	0		-	22.70	-		
10	25	12		-	22.80	-		
10	25	25		-	22.73	-		
10	50	0		-	22.81	-		
10	1	0	16-QAM	-	23.07	-	23.44	0.2208
10	1	25		-	23.44	-		
10	1	49		-	22.98	-		
10	25	0		-	21.88	-		
10	25	12		-	21.73	-		
10	25	25		-	21.76	-		
10	50	0		-	21.81	-		
10	1	0	64-QAM	-	21.84	-	21.86	0.1535
10	1	25		-	21.77	-		
10	1	49		-	21.86	-		
10	25	0		-	20.86	-		
10	25	12		-	20.91	-		
10	25	25		-	20.92	-		
10	50	0		-	20.77	-		
Limit	Reporting only			Result			N/A	



LTE Band 26 Straddle Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
5	1	0	QPSK	-	23.81	-	23.81	0.2404
5	1	12		-	23.72	-		
5	1	24		-	23.70	-		
5	12	0		-	22.85	-		
5	12	7		-	22.97	-		
5	12	13		-	22.76	-		
5	25	0		-	22.77	-		
5	1	0	16-QAM	-	23.21	-	23.21	0.2094
5	1	12		-	22.91	-		
5	1	24		-	22.94	-		
5	12	0		-	21.76	-		
5	12	7		-	21.92	-		
5	12	13		-	21.78	-		
5	25	0		-	21.86	-		
5	1	0	64-QAM	-	21.91	-	22.31	0.1702
5	1	12		-	22.31	-		
5	1	24		-	22.09	-		
5	12	0		-	20.71	-		
5	12	7		-	20.81	-		
5	12	13		-	20.73	-		
5	25	0		-	20.89	-		
Limit	Reporting only			Result			N/A	



LTE Band 26 Straddle Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
3	1	0	QPSK	-	23.73	-	23.82	0.2410
3	1	8		-	23.82	-		
3	1	14		-	23.63	-		
3	8	0		-	22.85	-		
3	8	4		-	22.90	-		
3	8	7		-	22.70	-		
3	15	0		-	22.78	-		
3	1	0	16-QAM	-	22.34	-	23.05	0.2018
3	1	8		-	23.05	-		
3	1	14		-	22.84	-		
3	8	0		-	22.10	-		
3	8	4		-	21.92	-		
3	8	7		-	21.95	-		
3	15	0	-	21.98	-	22.05	0.1603	
3	1	0	64-QAM	-	21.98			-
3	1	8		-	22.05			-
3	1	14		-	21.93			-
3	8	0		-	20.99			-
3	8	4		-	21.10			-
3	8	7		-	20.77			-
3	15	0		-	20.73	-		
Limit	Reporting only			Result			N/A	

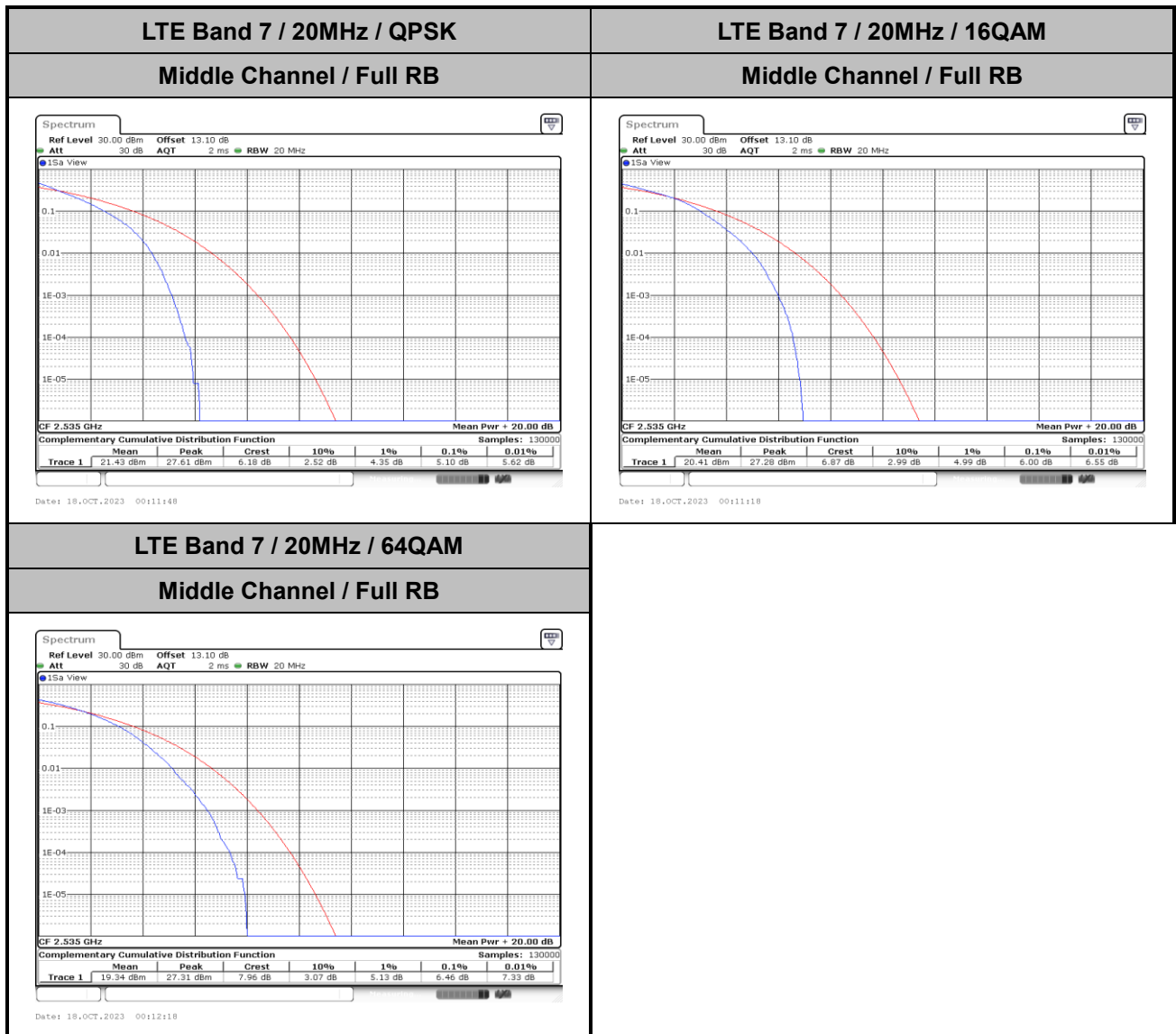


LTE Band 26 Straddle Maximum Average Power [dBm]								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	Output Power (dBm)	Output Power (W)
1.4	1	0	QPSK	-	23.44	-	23.67	0.2328
1.4	1	3		-	23.56	-		
1.4	1	5		-	23.67	-		
1.4	3	0		-	23.67	-		
1.4	3	1		-	23.65	-		
1.4	3	3		-	23.61	-		
1.4	6	0		-	22.79	-		
1.4	1	0	16-QAM	-	23.10	-	23.35	0.2163
1.4	1	3		-	22.98	-		
1.4	1	5		-	23.35	-		
1.4	3	0		-	22.98	-		
1.4	3	1		-	23.07	-		
1.4	3	3		-	22.97	-		
1.4	6	0		-	21.90	-		
1.4	1	0	64-QAM	-	21.71	-	22.28	0.1690
1.4	1	3		-	22.28	-		
1.4	1	5		-	21.96	-		
1.4	3	0		-	21.96	-		
1.4	3	1		-	21.95	-		
1.4	3	3		-	21.76	-		
1.4	6	0		-	20.97	-		
Limit	Reporting only			Result			N/A	

LTE Band 7

Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.10	6.00	6.46	-	PASS



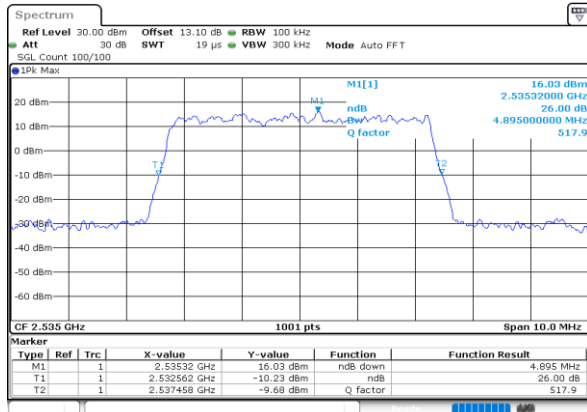
**26dB Bandwidth**

Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.90	4.98	9.79	9.85	14.54	14.63	19.06	18.66
Mode	LTE Band 7 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.91	-	9.75	-	14.45	-	19.10	-

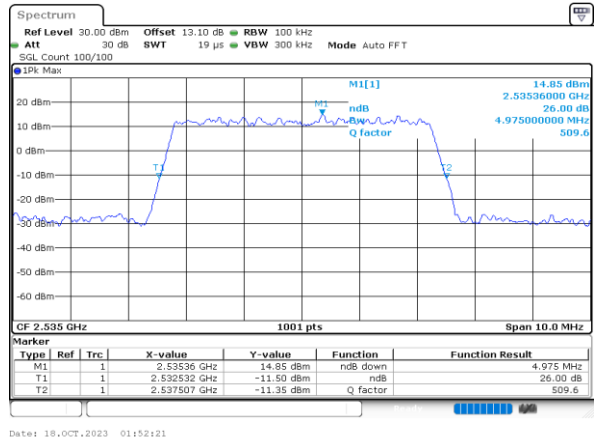


LTE Band 7

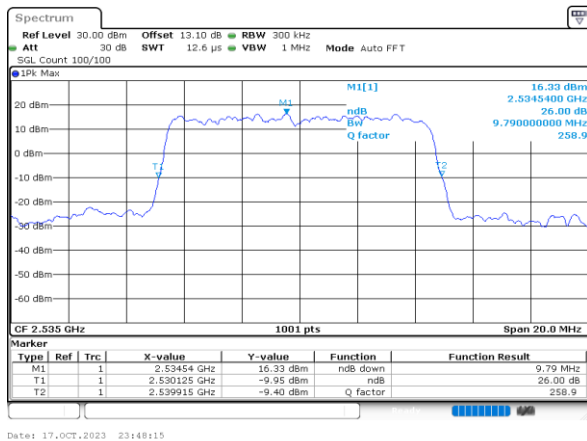
Middle Channel / 5MHz / QPSK



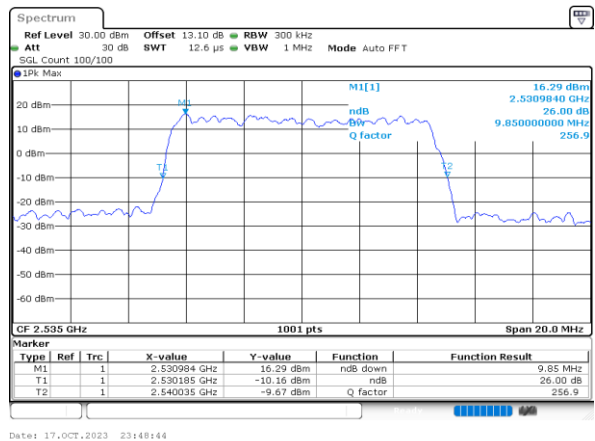
Middle Channel / 5MHz / 16QAM



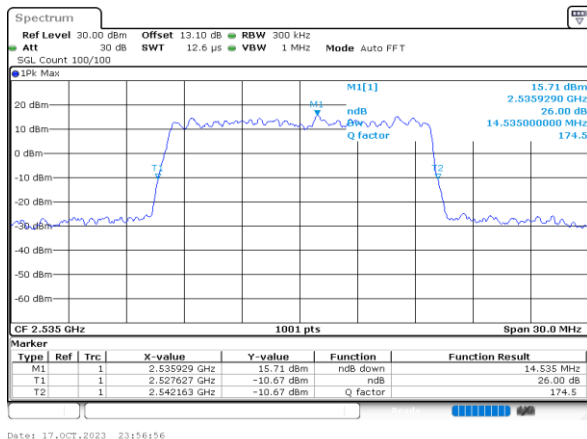
Middle Channel / 10MHz / QPSK



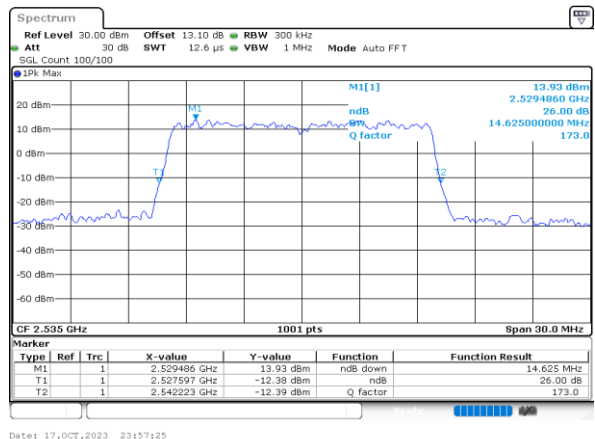
Middle Channel / 10MHz / 16QAM



Middle Channel / 15MHz / QPSK



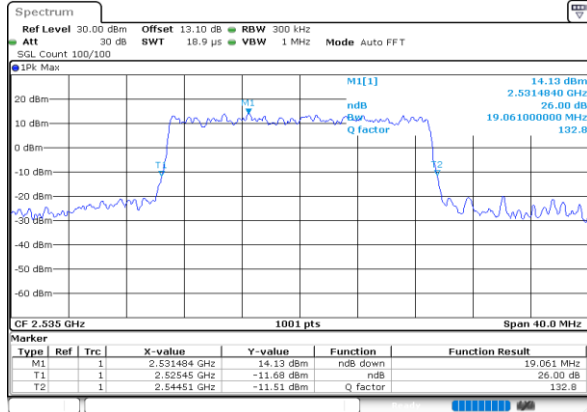
Middle Channel / 15MHz / 16QAM



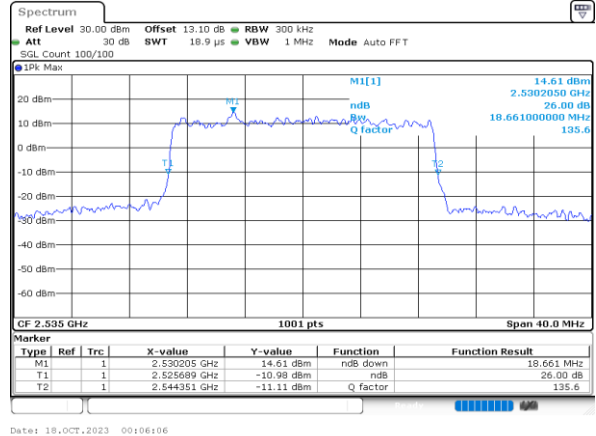


LTE Band 7

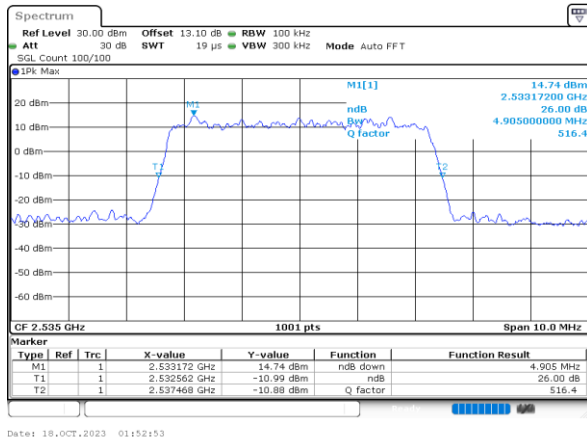
Middle Channel / 20MHz / QPSK



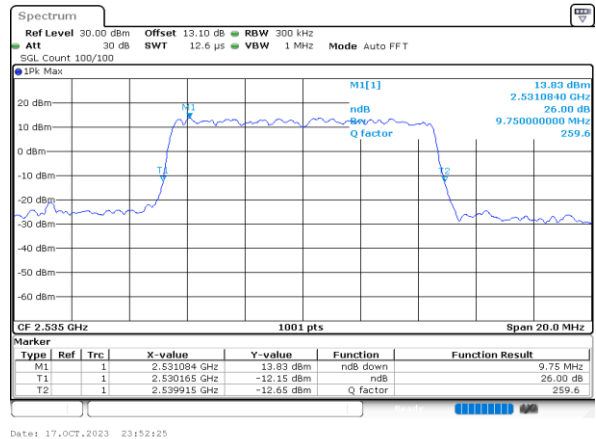
Middle Channel / 20MHz / 16QAM



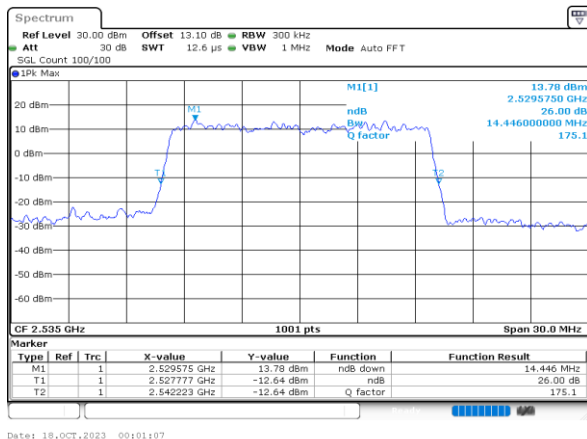
Middle Channel / 5MHz / 64QAM



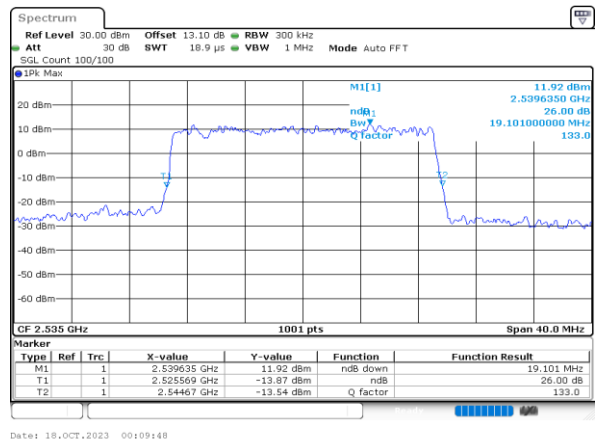
Middle Channel / 10MHz / 64QAM



Middle Channel / 15MHz / 64QAM



Middle Channel / 20MHz / 64QAM



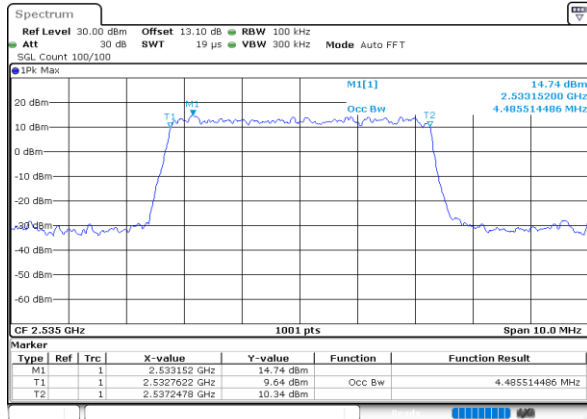
**Occupied Bandwidth**

Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.49	4.47	8.99	8.97	13.46	13.49	17.94	17.78
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	-	-	-	-	4.49	-	9.05	-	13.46	-	17.90	-

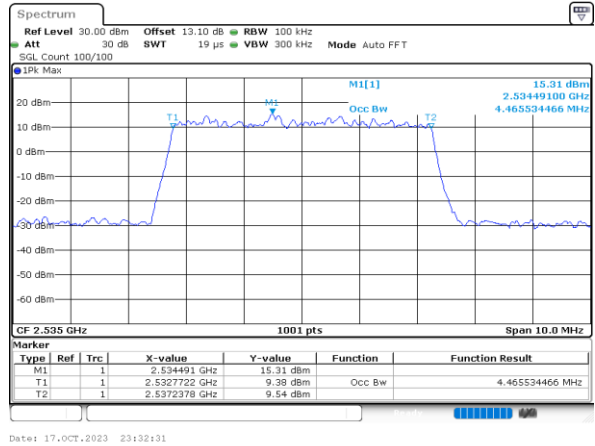


LTE Band 7

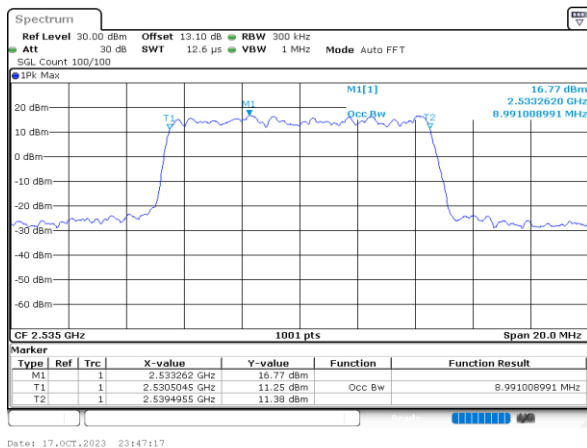
Middle Channel / 5MHz / QPSK



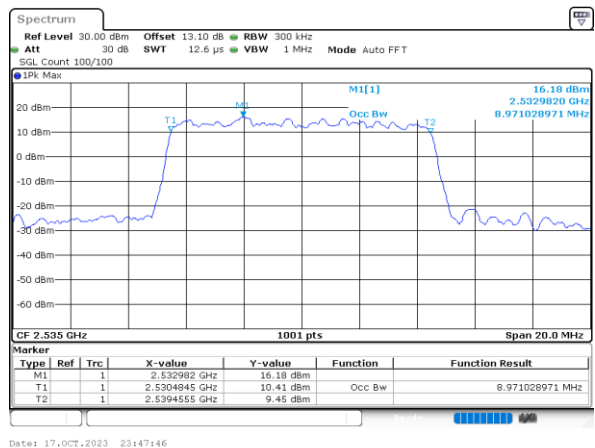
Middle Channel / 5MHz / 16QAM



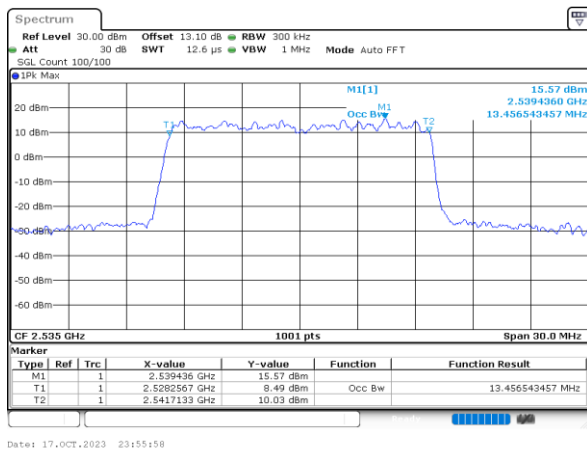
Middle Channel / 10MHz / QPSK



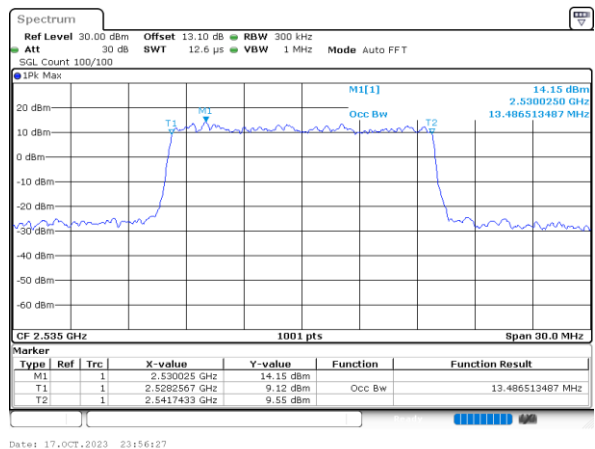
Middle Channel / 10MHz / 16QAM



Middle Channel / 15MHz / QPSK



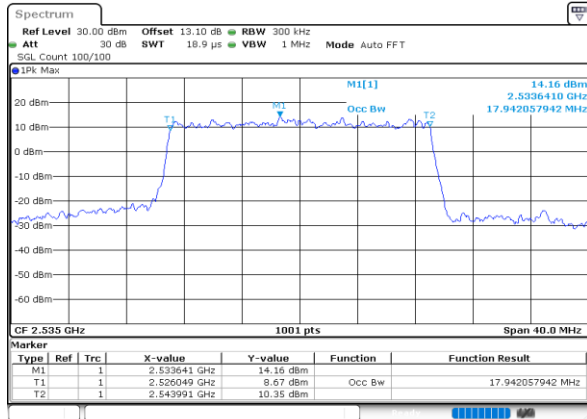
Middle Channel / 15MHz / 16QAM



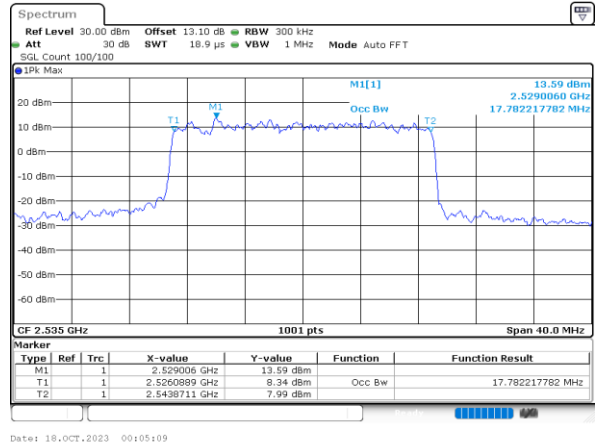


LTE Band 7

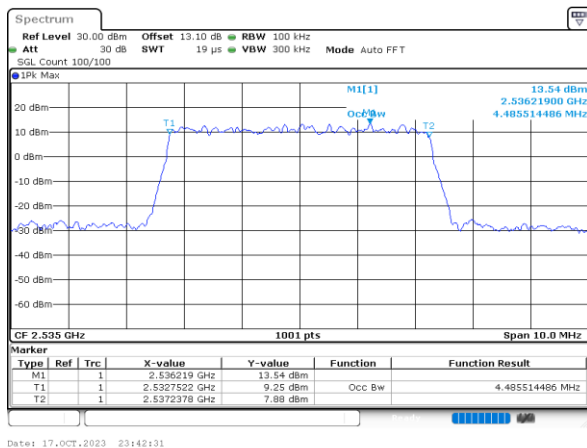
Middle Channel / 20MHz / QPSK



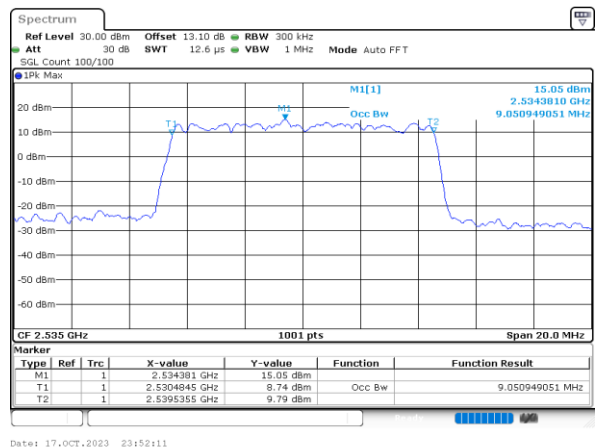
Middle Channel / 20MHz / 16QAM



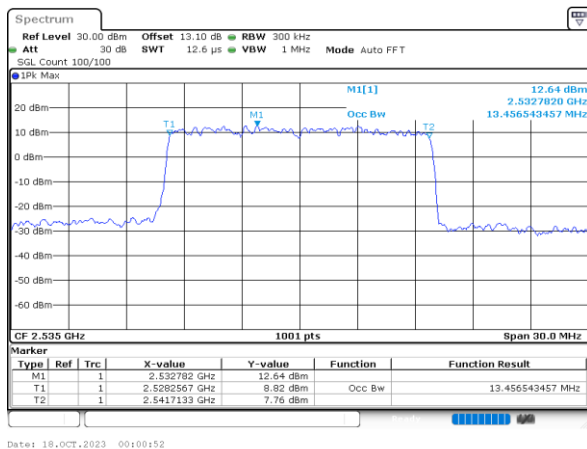
Middle Channel / 5MHz / 64QAM



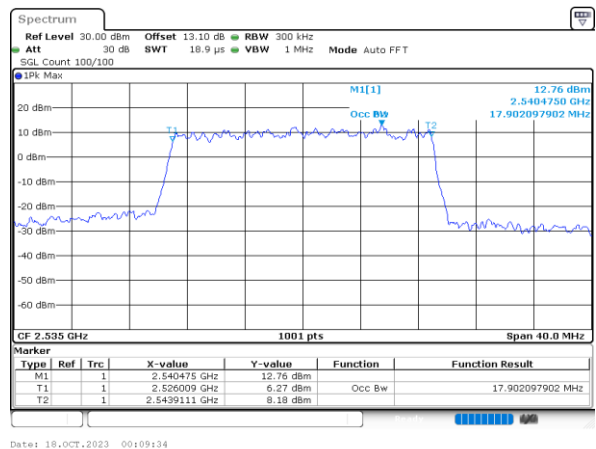
Middle Channel / 10MHz / 64QAM



Middle Channel / 15MHz / 64QAM



Middle Channel / 20MHz / 64QAM

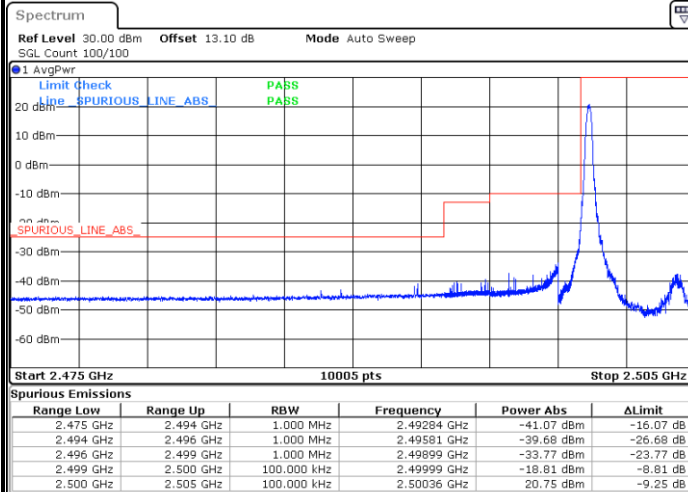




Conducted Band Edge

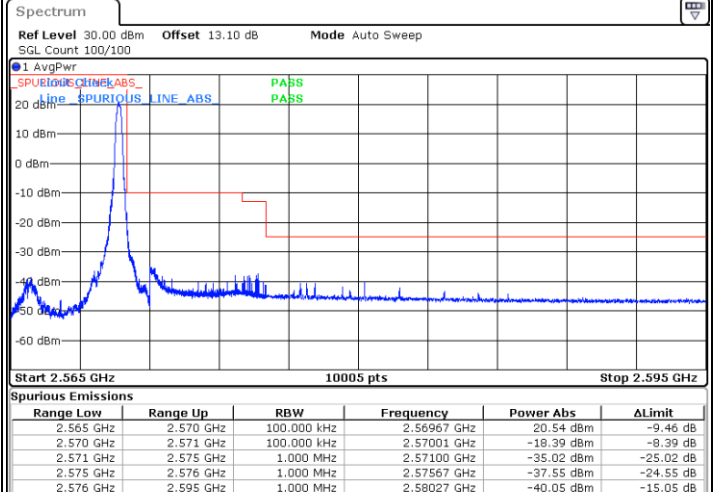
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



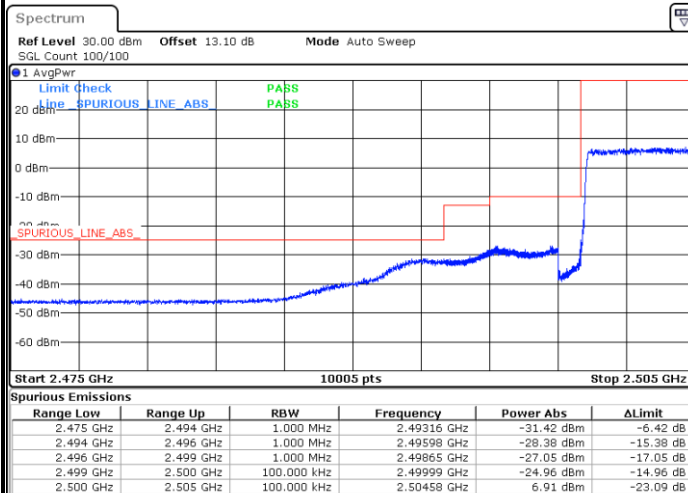
Date: 17.OCT.2023 23:27:15

Highest Band Edge / 1 RB



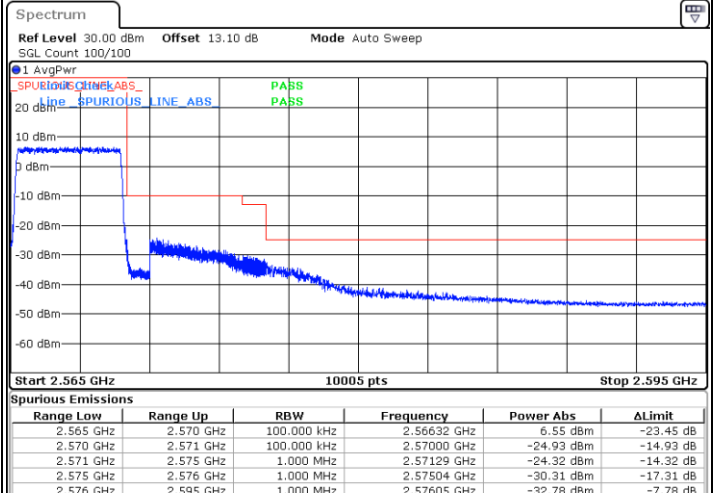
Date: 17.OCT.2023 23:35:45

Lowest Band Edge / Full RB



Date: 17.OCT.2023 23:29:15

Highest Band Edge / Full RB

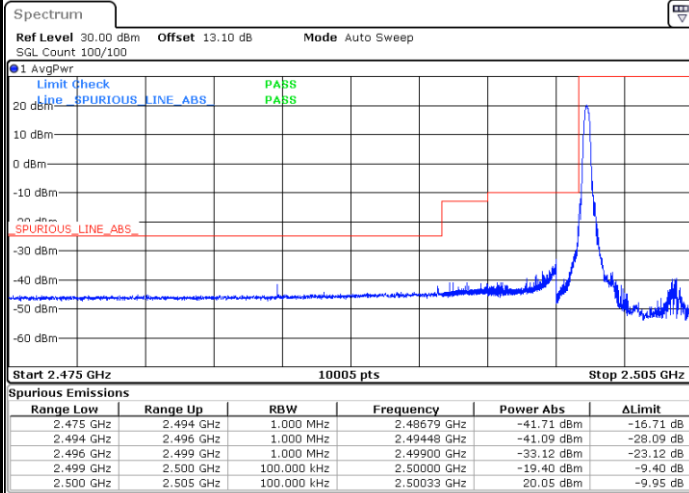


Date: 17.OCT.2023 23:37:44

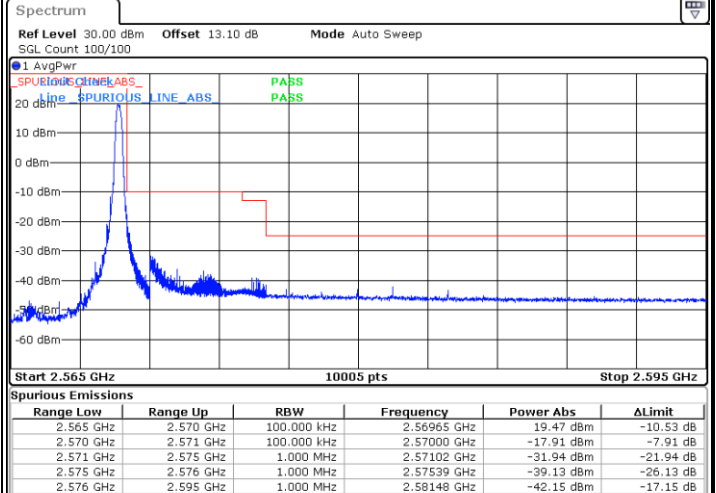


LTE Band 7 / 5MHz / 16QAM

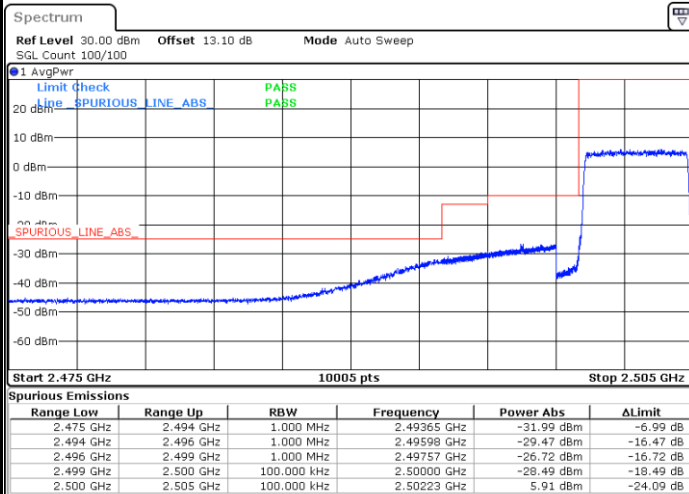
Lowest Band Edge / 1RB



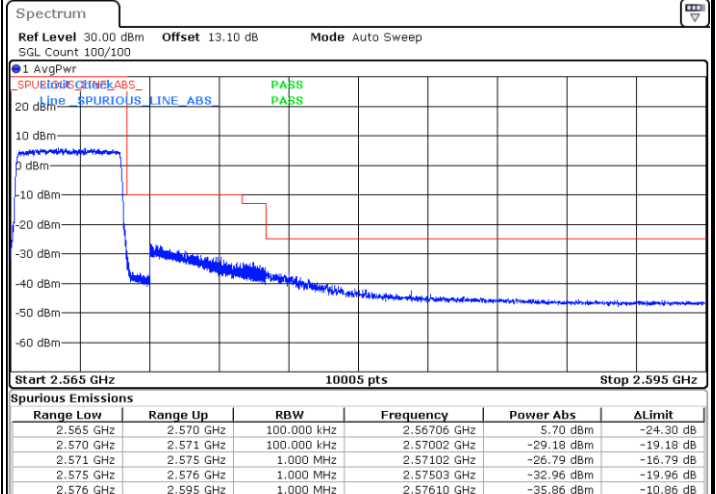
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



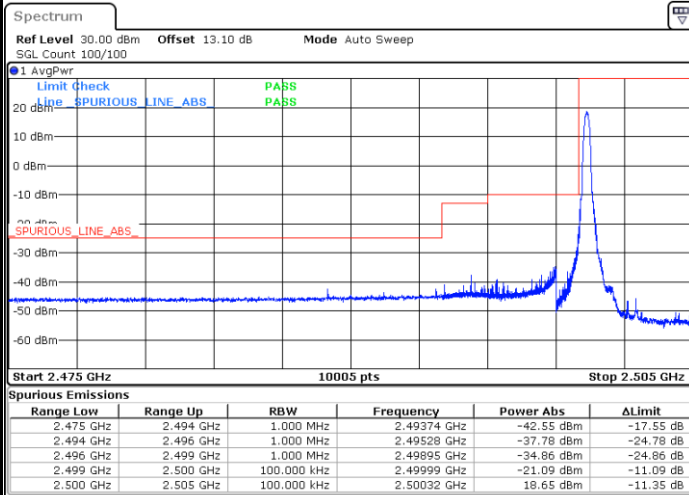
Highest Band Edge / Full RB



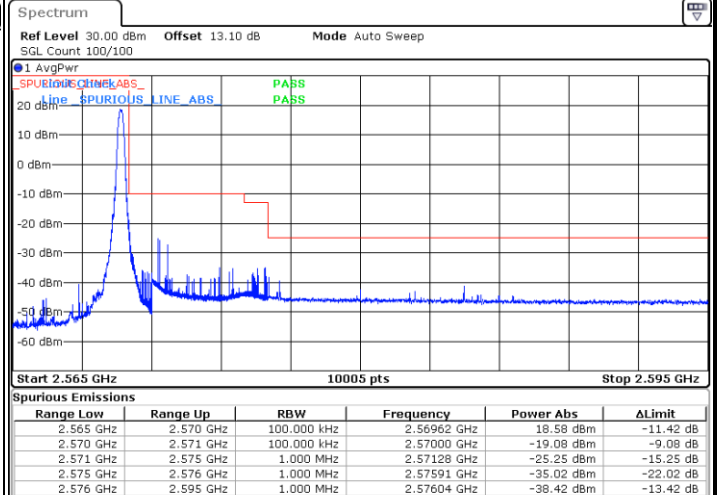


LTE Band 7 / 5MHz / 64QAM

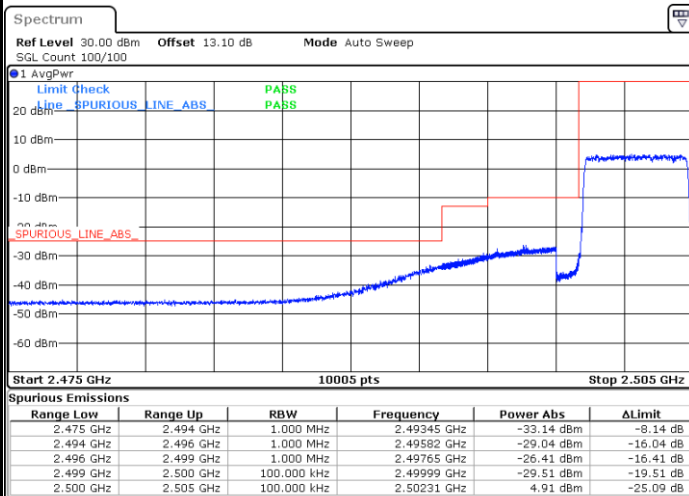
Lowest Band Edge / 1RB



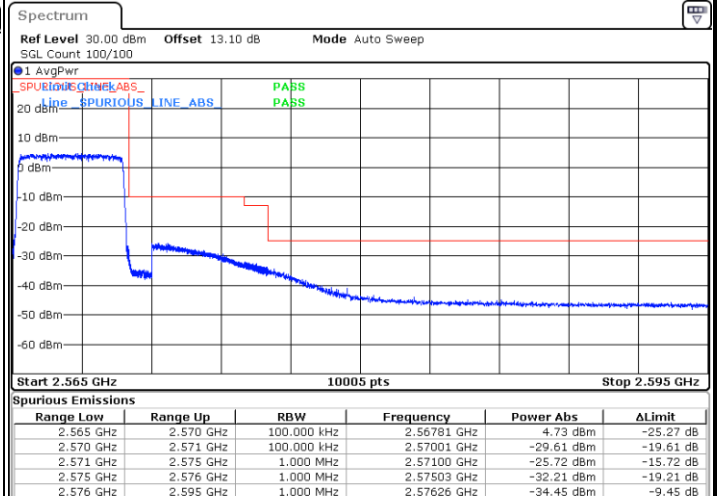
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



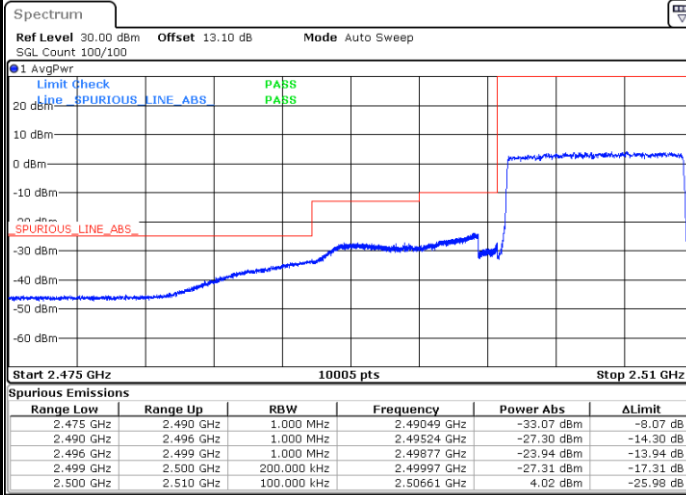
Highest Band Edge / Full RB



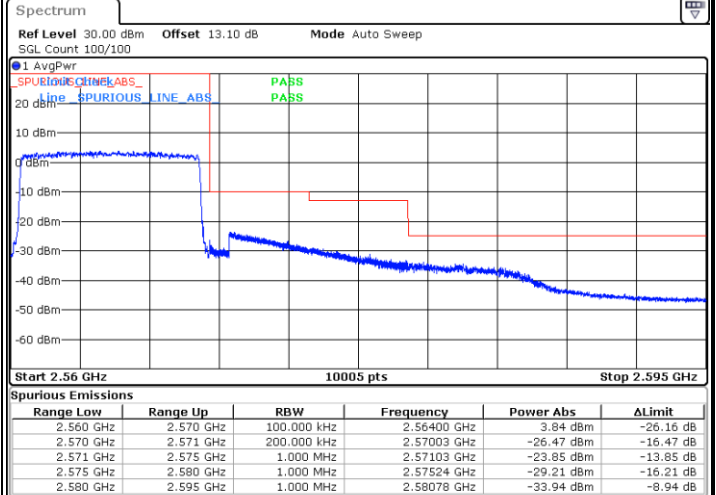


LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / Full RB

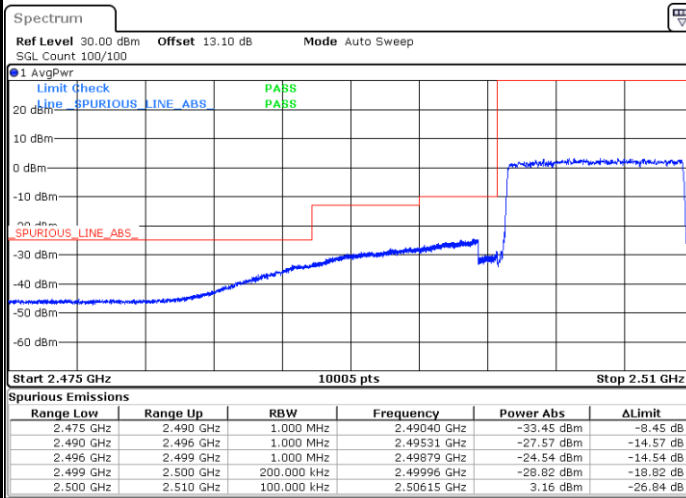


Highest Band Edge / Full RB

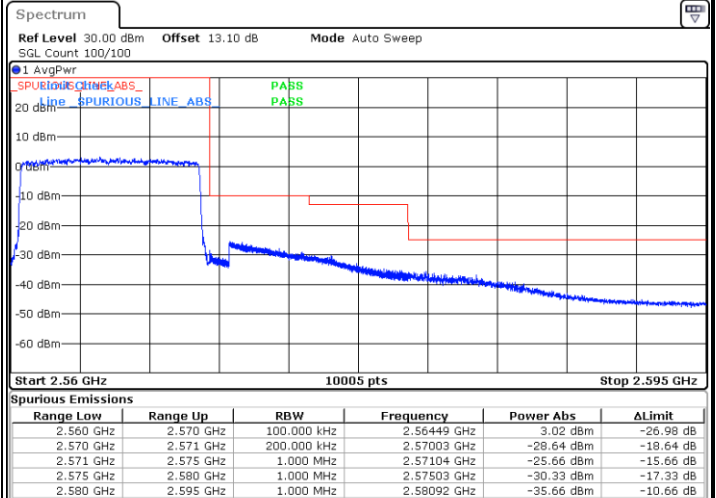


LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

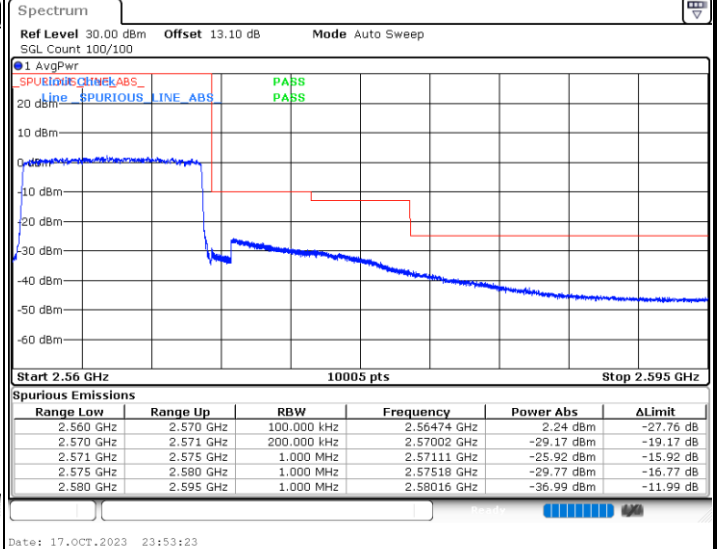
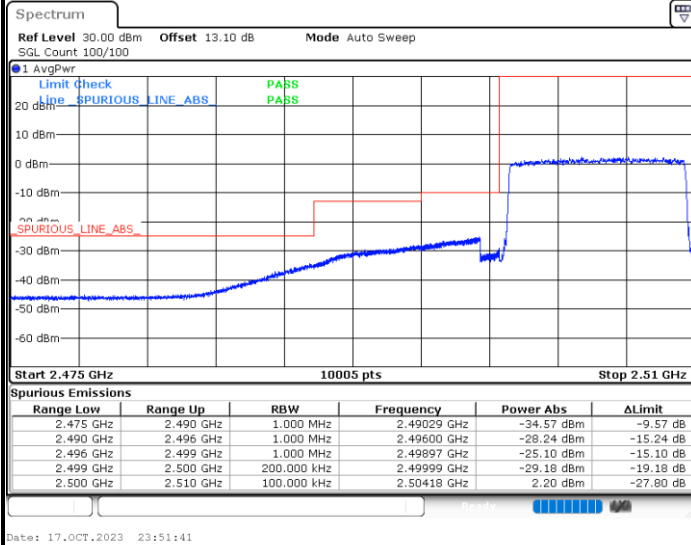




LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / Full RB

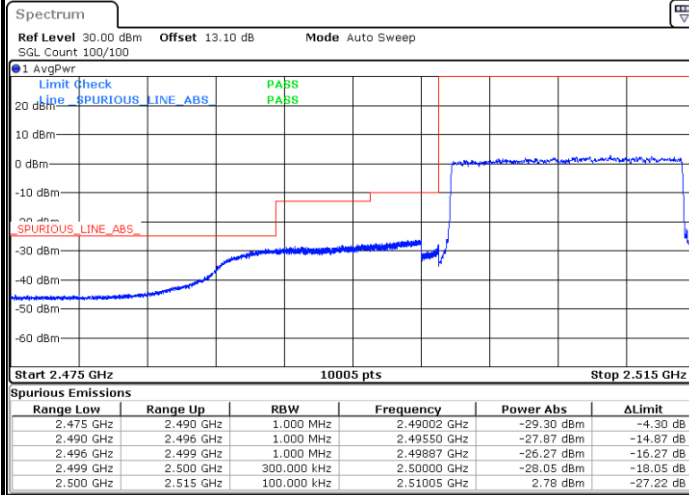
Highest Band Edge / Full RB



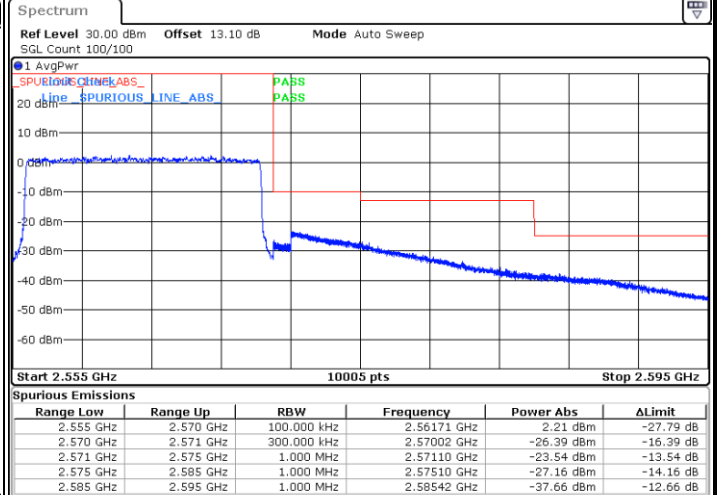


LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / Full RB

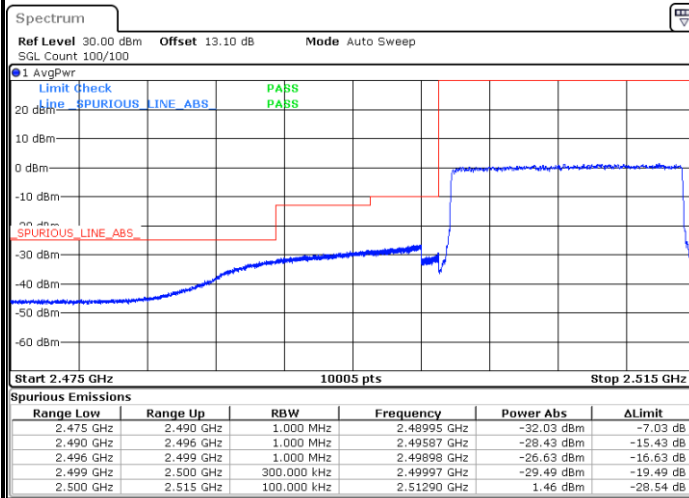


Highest Band Edge / Full RB

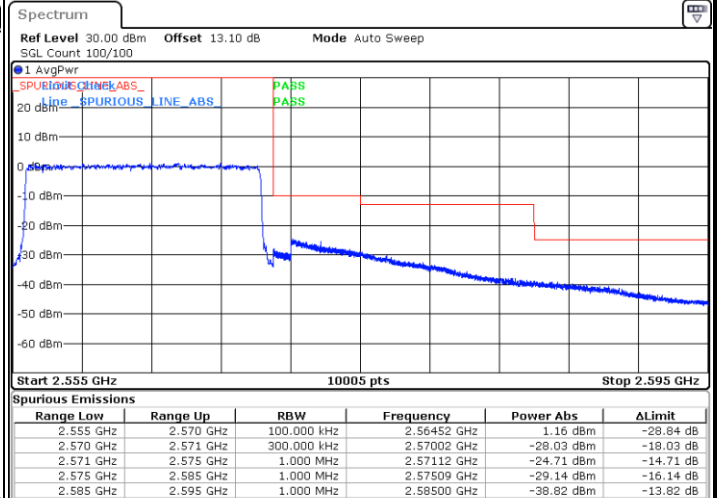


LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

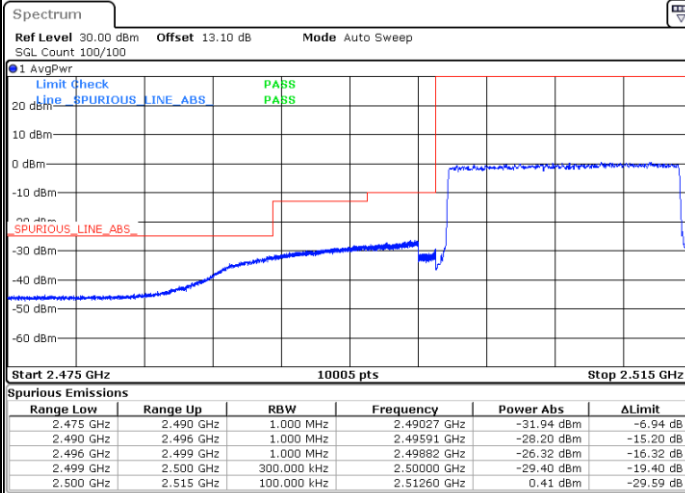




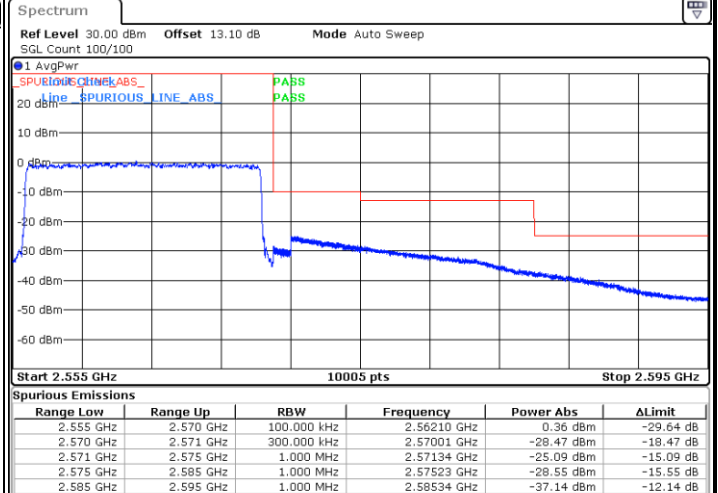
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18.OCT.2023 00:00:22

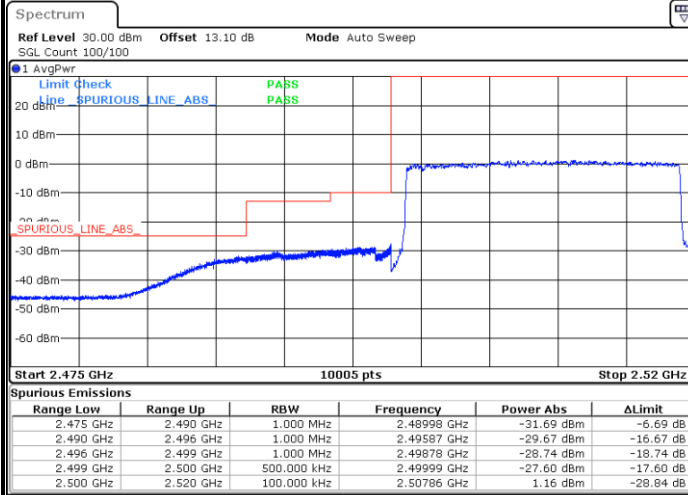


Date: 18.OCT.2023 00:02:05

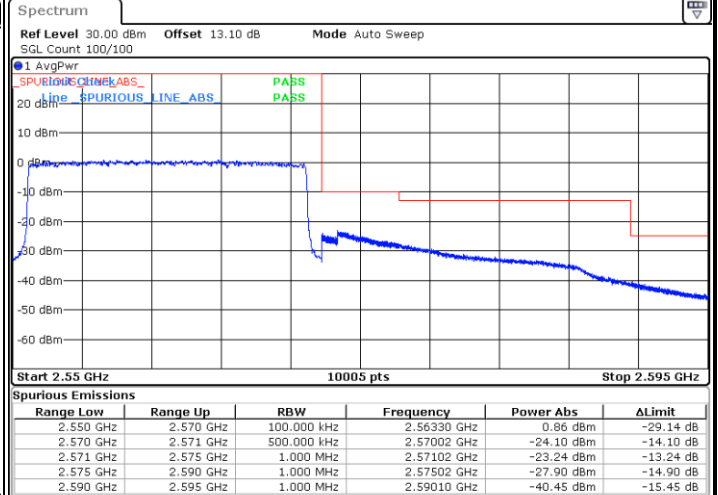


LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / Full RB

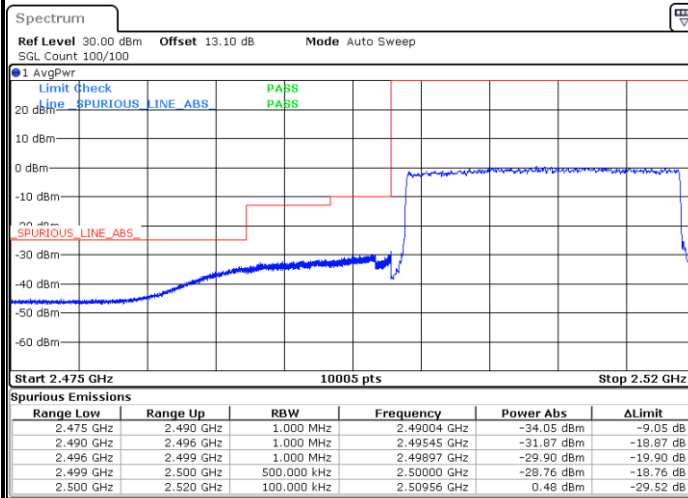


Highest Band Edge / Full RB

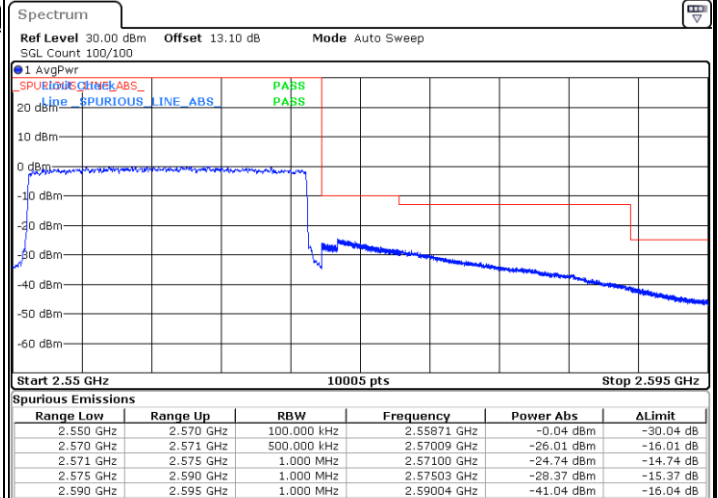


LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / Full RB



Highest Band Edge / Full RB

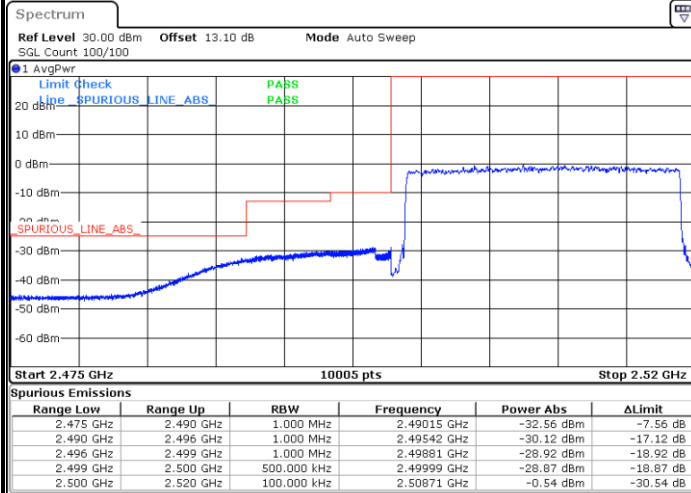




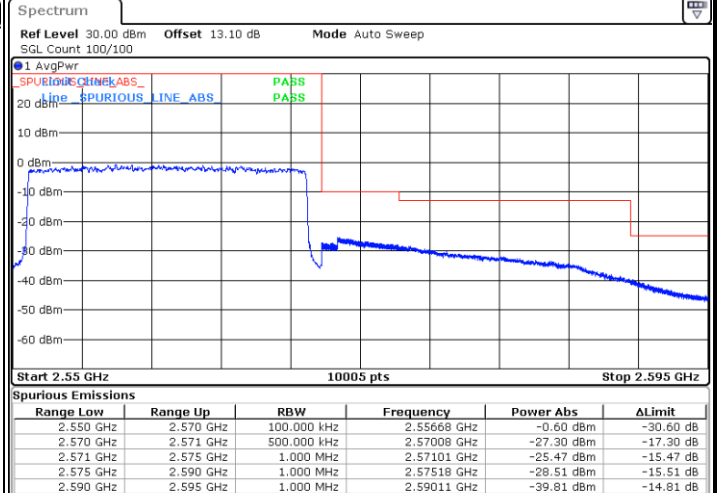
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 18.OCT.2023 00:09:04



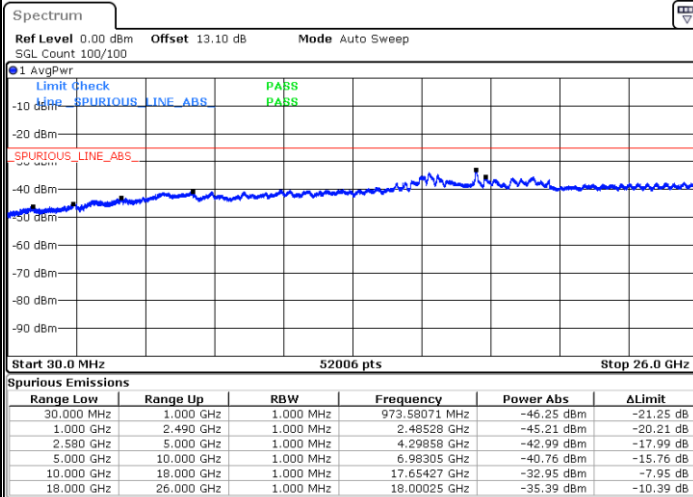
Date: 18.OCT.2023 00:10:46



Conducted Spurious Emission

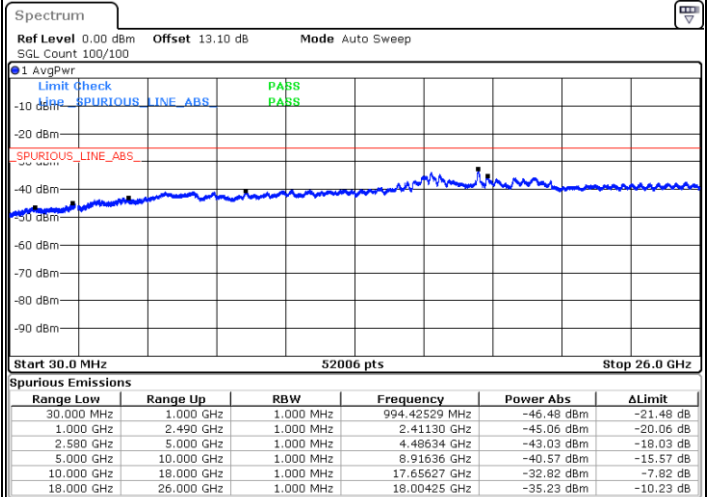
LTE Band 7 / 5MHz

Lowest Channel / QPSK



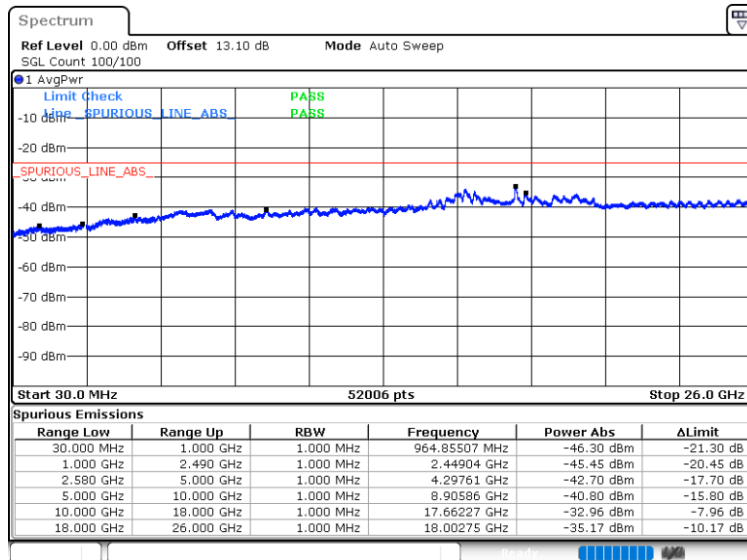
Date: 17.OCT.2023 23:31:32

Middle Channel / QPSK



Date: 17.OCT.2023 23:34:46

Highest Channel / QPSK

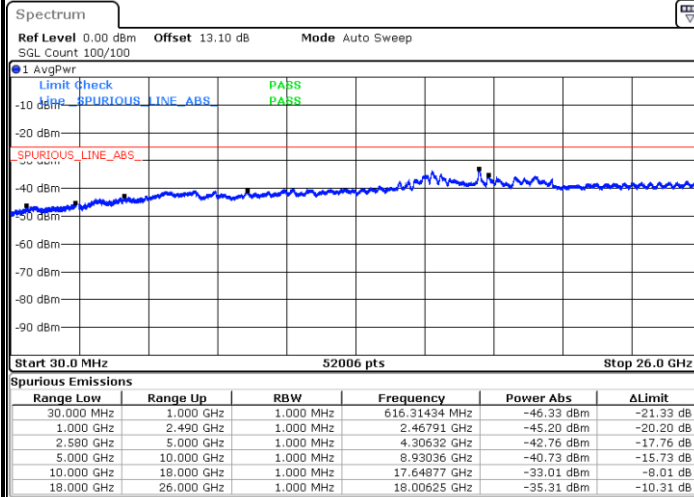


Date: 17.OCT.2023 23:40:02



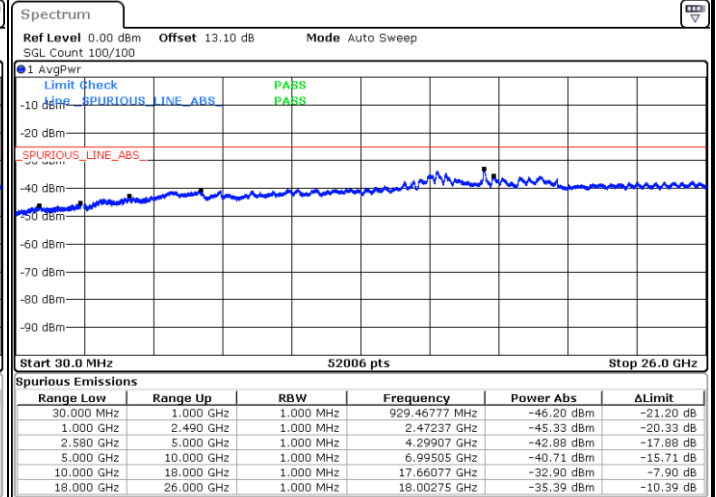
LTE Band 7 / 10MHz

Lowest Channel / QPSK



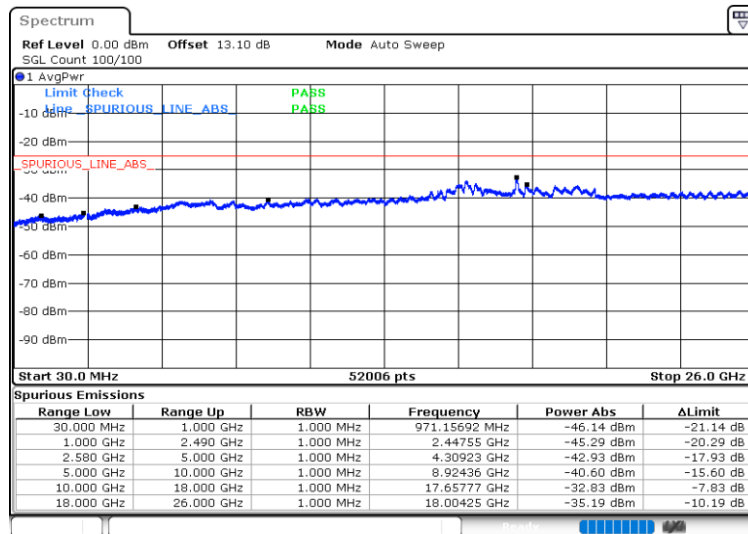
Date: 18.OCT.2023 00:13:41

Middle Channel / QPSK



Date: 18.OCT.2023 00:14:59

Highest Channel / QPSK

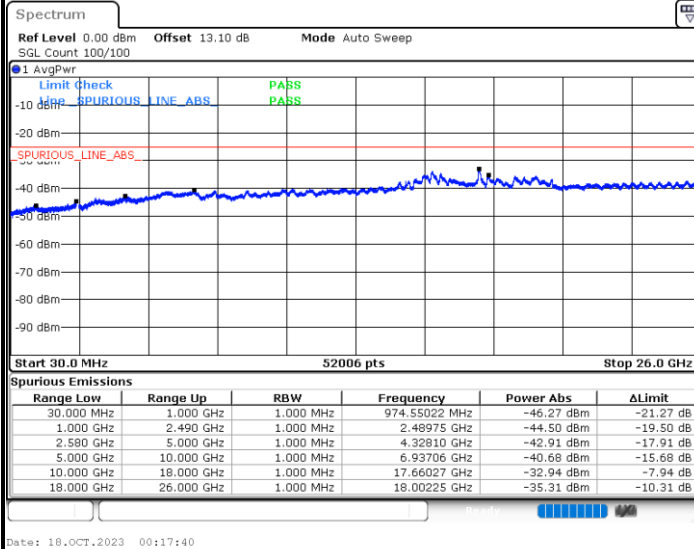


Date: 18.OCT.2023 00:16:17

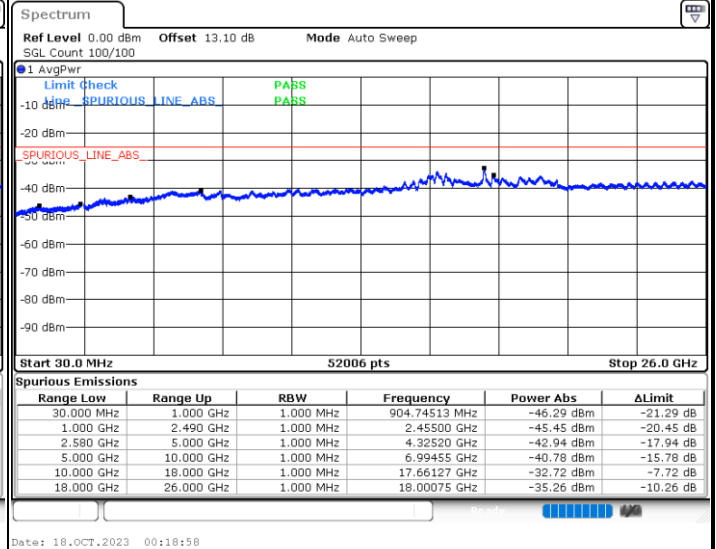


LTE Band 7 / 15MHz

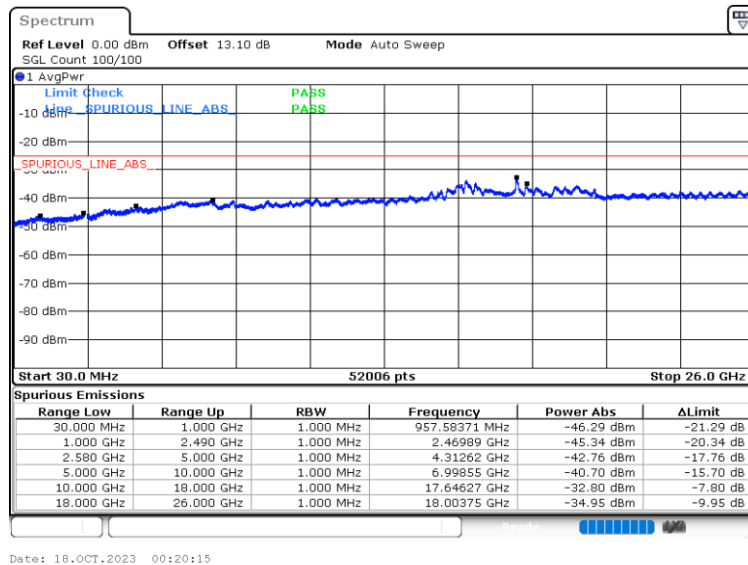
Lowest Channel / QPSK



Middle Channel / QPSK



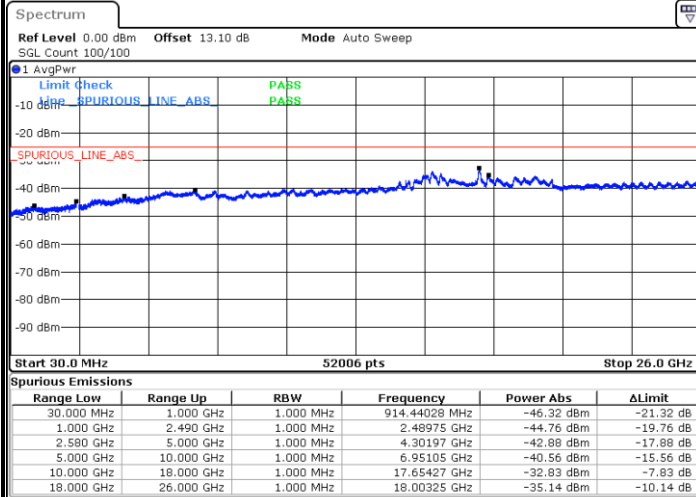
Highest Channel / QPSK





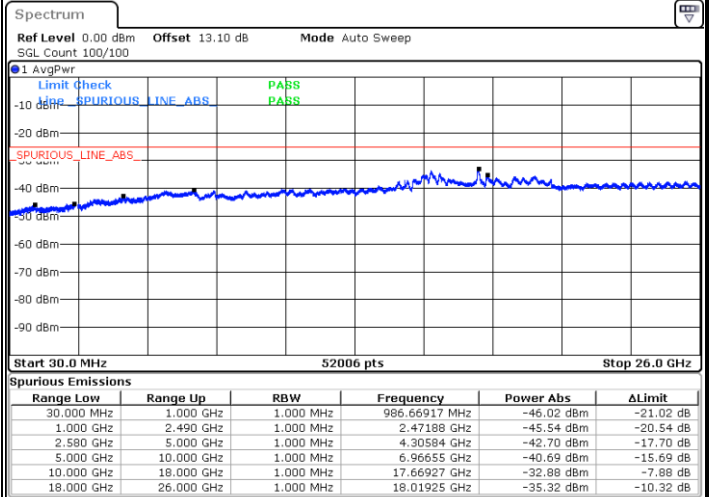
LTE Band 7 / 20MHz

Lowest Channel / QPSK



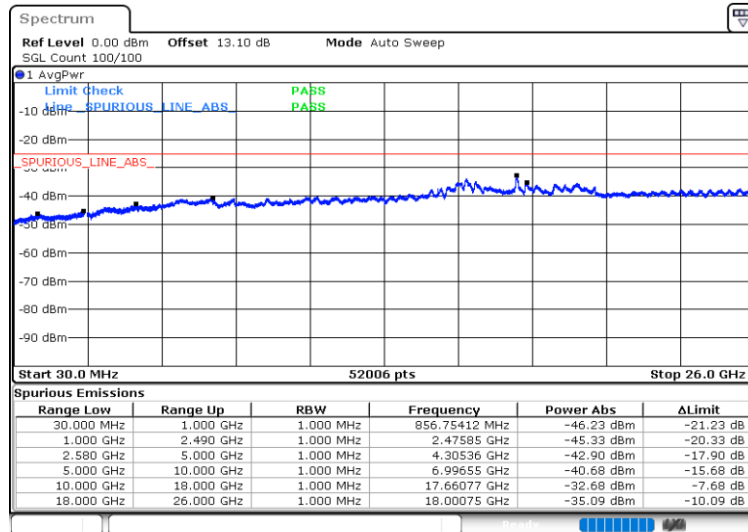
Date: 18.OCT.2023 00:21:38

Middle Channel / QPSK



Date: 18.OCT.2023 00:22:55

Highest Channel / QPSK



Date: 18.OCT.2023 00:24:12

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	0.0047	PASS
40	Normal Voltage	0.0005	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0043	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0050	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0045	
20	Maximum Voltage	0.0030	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0006	

Note:

1. Normal Voltage = 4.0 V. ; Battery End Point (BEP) = 3.8 V. ; Maximum Voltage = 4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.