FCC RADIO TEST REPORT

FCC ID	:	**2BAFM-HU123**
Equipment	:	**Wearable Communication Device**
Brand Name	:	**Humane**
Model Name	:	**HU0123**
Applicant	:	**Humane, Inc.** **969 Folsom Street San Francisco, CA 94107** **United States**
Manufacturer	:	**Humane, Inc.** **969 Folsom Street San Francisco, CA 94107** **United States**
Standard	:	**FCC 47 CFR Part 2, and 90(S)**

The product was received on May 08, 2023 and testing was performed from May 15, 2023 to Jun. 02, 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
FG342647C	01	Initial issue of report	Jul. 21, 2023

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.2	§2.1046 §90.635	Conducted Output Power and Effective Radiated Power	Pass	-
3.3	-	Peak-to-Average Ratio	Reporting only	-
3.4	§2.1049 §90.209	Occupied Bandwidth and 26dB Bandwidth	Reporting only	-
3.5	§2.1051 §90.691	Emission masks – In-band emissions	Pass	-
3.6	§2.1051 §90.691	Emission masks – Out of band emissions	Pass	-
3.7	§2.1055 §90.213	Frequency Stability for Temperature & Voltage	Pass	-
3.8	§2.1053 §90.691	Field Strength of Spurious Radiation	Pass	31.39 dB under the limit at 1632.000 MHz

Conformity Assessment Condition:

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

Disclaimer:

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

Reviewed by: Yun Huang

Report Producer: Lucy Wu

1 General Description

1.1 Feature of Equipment Under Test

Product Feature	
General Specs WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n/ac, Wi-Fi 5GHz 802.11a/n/ac, WPT, and GNSS. **Antenna Type** WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass: PIFA Antenna WPT: Coil Antenna	
Antenna Gain	LTE Band 26: -8.52 dBi

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

1.2 Modification of EUT

No modifications made to the EUT during the testing.

1.3 Testing Site

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	03CH07-HY
Test Engineer	HaoEn Zhang	Jesse Wang, Stan Hsieh and Ken Wu
Temperature (℃)	22.3~24.5	20.8~26.1
Relative Humidity (%)	52.1~54.3	49.2~62.8

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

FCC Designation No.: TW1190

1.4 Applied Standards

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

- FCC 47 CFR Part 2, 90
- ANSI / TIA-603-E
- ANSI C63.26-2015
- 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
- Interim Guidance for Equipment Authorization of Devices with Channel Bandwidths Combined Across Two Contiguous Service Rule Allocations OET/Lab/EACB, June 6, 2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Test Mode

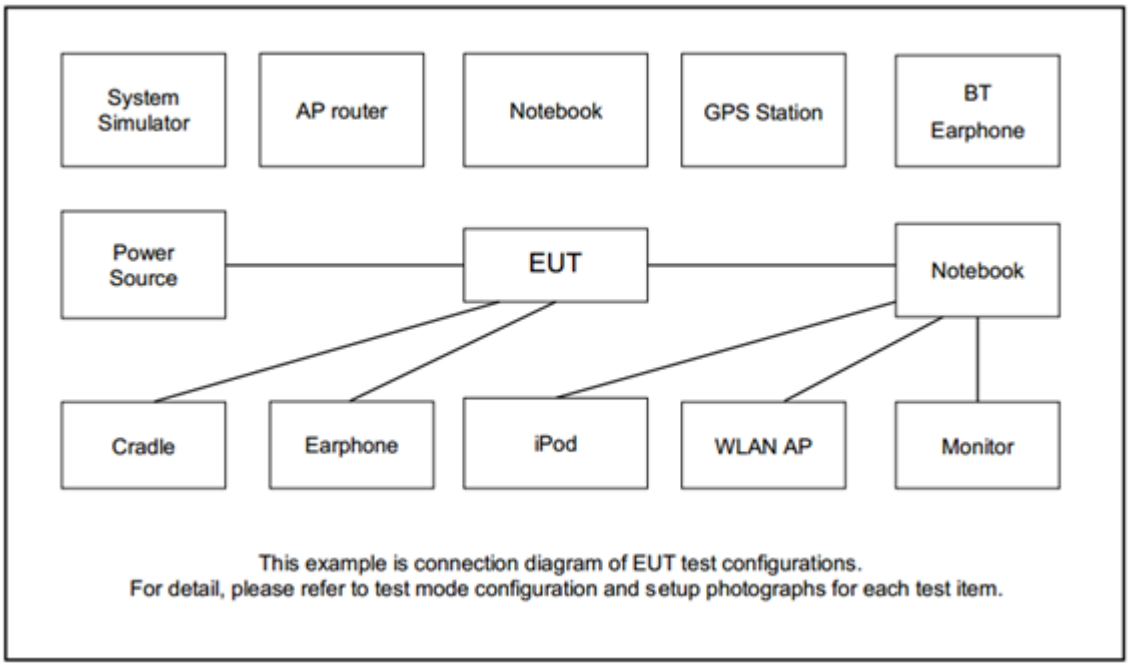
During all testing, EUT is in link mode with base station emulator at maximum power level.

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 three orthogonal axis (X: flat, Y: portrait, Z: landscape) and Wireless Charging Pad Mode, and adjusting the measurement antenna orientation, following C63.26 exploratory test procedures and only the worst case emissions were reported in this report.

Frequency range investigated for radiated emission is 30 MHz to 9000 MHz.

Conducted Test Cases	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	26				v	v	-	v	v	v			v		v	
26dB and 99% Bandwidth	26	v	v	v	v	v	-	v	v	v			v		v	
Emission masks In-band emissions	26	v	v	v	v	v	-	v	v	v	v		v	v		v
Emission masks – Out of band emissions	26	v	v	v	v	v	-	v			v			v	v	v
Frequency Stability	26	-	-		v	v	-	v					v	v	v	
E.R.P.	26	v	v	v	v	v	-	v	v	v	Max. Power					
Radiated Spurious Emission	26	Worst Case												v	v	v
Remark	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 3. LTE Band26 transmit frequency for part22 rule is 824MHz-849MHz, for part90 rule is 814MHz-824MHz. ERP over 15MHz bandwidth complies the ERP limit line of part22 rule, therefore ERP of the partial frequency spectrum which falls within part 22 also complies. 4. One representative bandwidth is selected to perform PAR and frequency stability.															

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.	System Simulator	Anritsu	MT8821C	N/A	N/A	Unshielded, 1.8 m

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 RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level.

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

Offset = RF cable loss + attenuator factor.

The following shows an offset computation example with RF cable loss 4.2 dB and a 10dB attenuator.

Example :

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

= 4.2 + 10 = 14.2 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

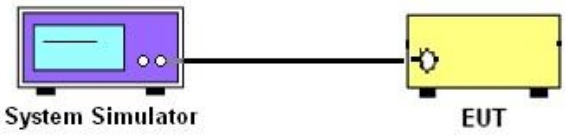
3 Conducted Test Items

3.1 Measuring Instruments

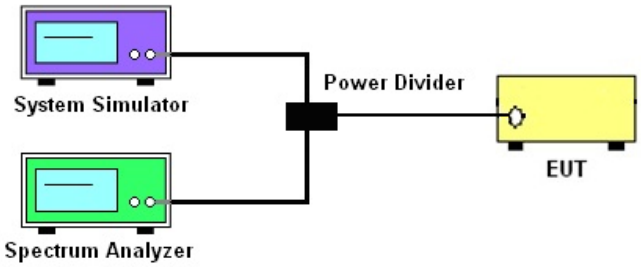
See list of measuring instruments of this test report.

3.1.1 Test Setup

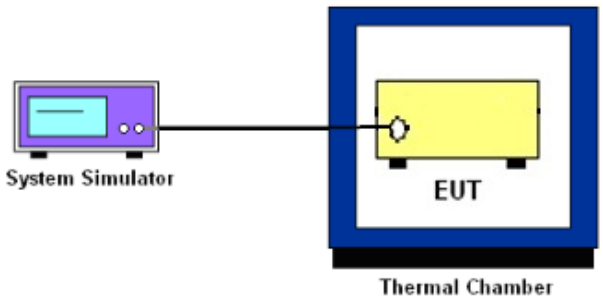
3.1.2 Conducted Output Power



3.1.3 Peak-to-Average Ratio, Occupied Bandwidth, Conducted Band-Edge, Emission Mask, Emissions Mask – Out Of Band Emissions, 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 Measurement and ERP Measurement

3.2.1 Description of the Conducted Output Power Measurement and ERP Measurement

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

The output power of mobile transmitters must not exceed 100 Watts for LTE Band 26.

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, 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 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

Reporting only

3.3.2 Test Procedures

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 99% Occupied Bandwidth and 26dB Bandwidth Measurement

3.4.1 Description of (Occupied) Bandwidth Limitations Measurement

The 99% 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 emission bandwidth is defined as the width of the signal between two points, located at the 2 sides of the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

3.4.2 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The 26dB and 99% occupied bandwidth (BW) of the middle channel for the highest RF power with full RB sizes were measured.

3.5 Emissions Mask Measurement

3.5.1 Description of Emissions Mask Measurement

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

(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 + 10Log_{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.

3.5.2 Test Procedures

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.

3.6 Emissions Mask – Out Of Band Emissions Measurement

3.6.1 Description of Conducted Emissions Out of band emissions measurement

The power of any emission FCC Part 90.691 (a)(2) on any frequency removed from the assigned frequency by out of the authorized bandwidth at least 43 + 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.

3.6.2 Test Procedures

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 middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. For testing below 1GHz, make the measurement with the spectrum analyzer's RBW = 100 kHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. For testing above 1GHz, make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, 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 + 10log(P)dB below the transmitter power P(Watts)

3.7 Frequency Stability Measurement

3.7.1 Description of Frequency Stability Measurement

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

3.7.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.7.3 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the base station.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized for three hours. 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.

3.7.4 Test Procedures for Voltage Variation

1. The EUT was placed in a temperature chamber at 20±5° C and connected with the base station.
2. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

3.8 Field Strength of Spurious Radiation Measurement

3.8.1 Description of Field Strength of Spurious Radiated Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission FCC Part 90.691 on any frequency removed from the assigned frequency by more than 250 percent of the authorized bandwidth at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

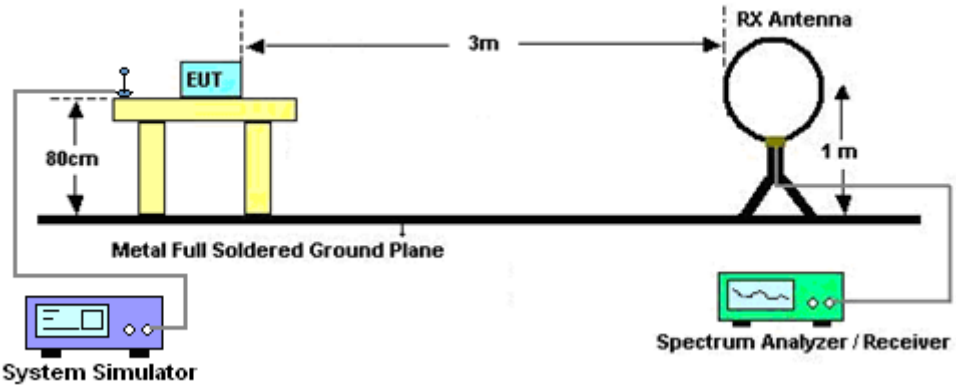
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43+10\log_{10}(P[Watts])$ dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

3.8.2 Test Procedures

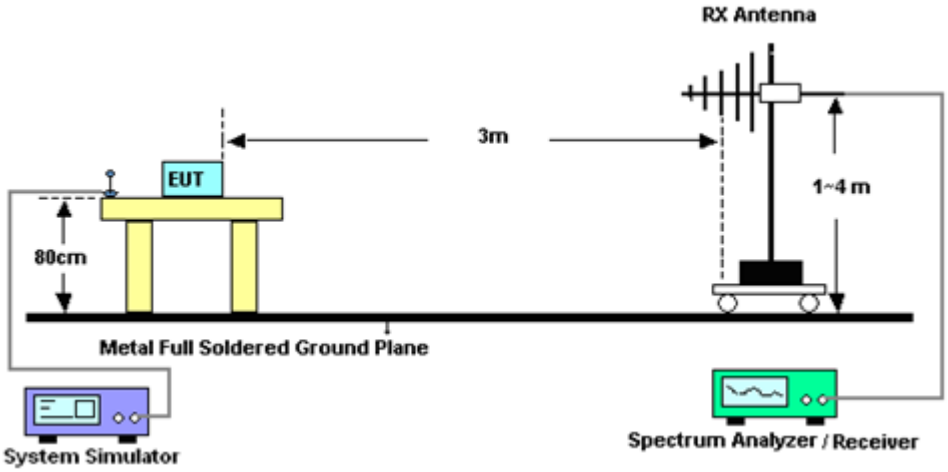
1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. For testing below 1GHz, make the measurement with the spectrum analyzer's RBW = 100 kHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
6. For testing above 1GHz, make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, Sweep = 500ms, Taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
12. ERP (dBm) = EIRP - 2.15
13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
14. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

3.8.3 Test Setup

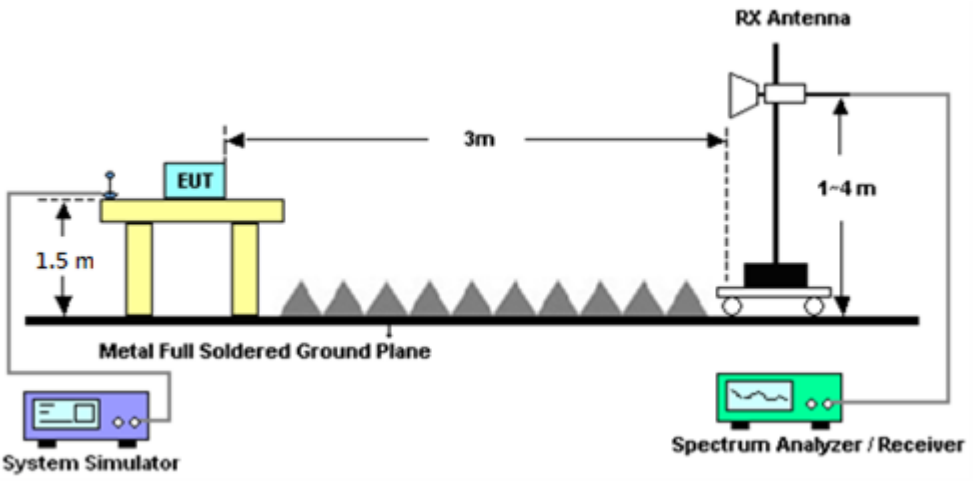
For radiated test below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



3.8.4 Test Result of Field Strength of Spurious Radiated

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 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01 N-06	35419 & 03	30MHz~1GHz	Apr. 23, 2023	May 19, 2023~ May 26, 2023	Apr. 22, 2024	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Dec. 01, 2022	May 19, 2023~ May 26, 2023	Nov. 30, 2023	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz~18GHz	Apr. 20, 2023	May 19, 2023~ May 26, 2023	Apr. 19, 2024	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	Oct. 03, 2022	May 19, 2023~ May 26, 2023	Oct. 02, 2023	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A023 62	1GHz~26.5GHz	Mar. 24, 2023	May 19, 2023~ May 26, 2023	Mar. 23, 2024	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9030A	MY523502 76	3Hz~44GHz	Mar. 28, 2023	May 19, 2023~ May 26, 2023	Mar. 27, 2024	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY15682/ 4	30MHz to 18GHz	Feb. 22, 2023	May 19, 2023~ May 26, 2023	Feb. 21, 2024	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY24971/ 4	9kHz to 18GHz	Feb. 22, 2023	May 19, 2023~ May 26, 2023	Feb. 21, 2024	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/ 4	9kHz to 18GHz	Feb. 22, 2023	May 19, 2023~ May 26, 2023	Feb. 21, 2024	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 20, 2023	May 19, 2023~ May 26, 2023	Apr. 19, 2024	Radiation (03CH07-HY)
Controller	EMEC	EM1000	N/A	Control Ant Mast	N/A	May 19, 2023~ May 26, 2023	N/A	Radiation (03CH07-HY)
Controller	MF	MF-7802	N/A	Control Turn table	N/A	May 19, 2023~ May 26, 2023	N/A	Radiation (03CH07-HY)
Antenna Mast	EMEC	AM-BS-4500E	N/A	Boresight mast 1M~4M	N/A	May 19, 2023~ May 26, 2023	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	May 19, 2023~ May 26, 2023	N/A	Radiation (03CH07-HY)
Software	Audix	E3	N/A	N/A	N/A	May 19, 2023~ May 26, 2023	N/A	Radiation (03CH07-HY)
USB Data Logger	TECPEL	TR-32	HE17XB24 95	N/A	Mar. 14, 2023	May 19, 2023~ May 26, 2023	Mar. 13, 2024	Radiation (03CH07-HY)
Horn Antenna	ETS-Lindgren	3117	00143261	1GHz~18GHz	Feb. 24, 2023	May 19, 2023~ May 26, 2023	Feb. 23, 2024	Radiation (03CH07-HY)
Signal Generator	Rohde & Schwarz	SMF100A	101107	100kHz~40GHz	Jan. 11, 2023	May 19, 2023~ May 26, 2023	Jan. 10, 2024	Radiation (03CH07-HY)
Radio Communication Analyzer	Anritsu	MT8821C	626202535 3	LTE FDD/TDD LTE-2CC DLCA/ULCA	Oct. 13, 2022	May 15, 2023~ Jun. 02, 2023	Oct. 12, 2023	Conducted (TH03-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101908	10Hz~40GHz	Sep. 27, 2022	May 15, 2023~ Jun. 02, 2023	Sep. 26, 2023	Conducted (TH03-HY)
Thermal Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Sep. 07, 2022	May 15, 2023~ Jun. 02, 2023	Sep. 06, 2023	Conducted (TH03-HY)
DC Power Supply	GW Instek	GPP-2323	GES90603 7	0V~64V ; 0A~6A	Dec. 29, 2022	May 15, 2023~ Jun. 02, 2023	Dec. 28, 2023	Conducted (TH03-HY)
Coupler	Warison	20dB 25W SMA Directional Coupler	#B	1-18GHz	Jan. 06, 2023	May 15, 2023~ Jun. 02, 2023	Jan. 05, 2024	Conducted (TH03-HY)

5 Measurement Uncertainty

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.25 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.50 dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power & ERP)

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
15	1	0	QPSK	23.63	-	-	13.06	0.0202
15	1	37		23.65	-	-		
15	1	74		23.73	-	-		
15	36	0		22.74	-	-		
15	36	20		22.73	-	-		
15	36	39		22.76	-	-		
15	75	0		22.69	-	-		
15	1	0	16-QAM	22.93	-	-	12.29	0.0169
15	1	37		22.96	-	-		
15	1	74		22.94	-	-		
15	36	0		21.77	-	-		
15	36	20		21.80	-	-		
15	36	39		21.82	-	-		
15	75	0		21.77	-	-		
15	1	0	64-QAM	21.84	-	-	11.26	0.0134
15	1	37		21.93	-	-		
15	1	74		21.90	-	-		
15	36	0		20.85	-	-		
15	36	20		20.83	-	-		
15	36	39		20.84	-	-		
15	75	0		20.83	-	-		
Limit	Power < 100W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	-	23.62	-	13.07	0.0203
10	1	25		-	23.74	-		
10	1	49		-	23.69	-		
10	25	0		-	22.76	-		
10	25	12		-	22.76	-		
10	25	25		-	22.73	-		
10	50	0		-	22.76	-		
10	1	0	16-QAM	-	22.85	-	12.30	0.0170
10	1	25		-	22.95	-		
10	1	49		-	22.97	-		
10	25	0		-	21.81	-		
10	25	12		-	21.83	-		
10	25	25		-	21.78	-		
10	50	0		-	21.83	-		
10	1	0	64-QAM	-	21.77	-	11.29	0.0135
10	1	25		-	21.92	-		
10	1	49		-	21.96	-		
10	25	0		-	20.81	-		
10	25	12		-	20.83	-		
10	25	25		-	20.81	-		
10	50	0		-	20.82	-		
Limit	Power < 100W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	23.61	23.63	23.62	12.98	0.0199
5	1	12		23.61	23.57	23.62		
5	1	24		23.57	23.65	23.64		
5	12	0		22.65	22.59	22.58		
5	12	7		22.67	22.67	22.66		
5	12	13		22.65	22.73	22.57		
5	25	0		22.67	22.74	22.68		
5	1	0	16-QAM	22.91	23.01	22.99	12.34	0.0171
5	1	12		22.95	22.98	22.91		
5	1	24		22.96	22.88	22.89		
5	12	0		21.72	21.65	21.62		
5	12	7		21.77	21.81	21.84		
5	12	13		21.75	21.78	21.78		
5	25	0		21.75	21.78	21.75		
5	1	0	64-QAM	21.87	21.86	21.88	11.30	0.0135
5	1	12		21.90	21.91	21.90		
5	1	24		21.88	21.85	21.97		
5	12	0		20.79	20.75	20.83		
5	12	7		20.84	20.88	20.90		
5	12	13		20.80	20.86	20.88		
5	25	0		20.77	20.73	20.78		
Limit	Power < 100W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0	QPSK	23.63	23.62	23.57	13.06	0.0202
3	1	8		23.63	23.54	23.73		
3	1	14		23.61	23.60	23.54		
3	8	0		22.66	22.71	22.56		
3	8	4		22.67	22.71	22.72		
3	8	7		22.64	22.72	22.65		
3	15	0		22.65	22.74	22.61		
3	1	0	16-QAM	22.91	22.89	22.86	12.33	0.0171
3	1	8		22.94	23.00	22.95		
3	1	14		22.91	22.85	22.90		
3	8	0		21.74	21.65	21.70		
3	8	4		21.79	21.80	21.72		
3	8	7		21.79	21.73	21.84		
3	15	0		21.78	21.81	21.81		
3	1	0	64-QAM	21.85	21.90	21.86	11.23	0.0133
3	1	8		21.87	21.80	21.79		
3	1	14		21.85	21.86	21.89		
3	8	0		20.78	20.85	20.76		
3	8	4		20.82	20.77	20.92		
3	8	7		20.77	20.73	20.83		
3	15	0		20.77	20.78	20.70		
Limit	Power < 100W			Result			Pass	

LTE Band 26 Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0	QPSK	23.58	23.48	23.50	13.08	0.0203
1.4	1	3		23.65	23.73	23.56		
1.4	1	5		23.57	23.51	23.48		
1.4	3	0		23.59	23.60	23.60		
1.4	3	1		23.69	23.59	23.75		
1.4	3	3		23.62	23.63	23.60		
1.4	6	0		22.64	22.72	22.55		
1.4	1	0	16-QAM	22.84	22.78	22.77	12.27	0.0169
1.4	1	3		22.91	22.94	22.90		
1.4	1	5		22.86	22.85	22.78		
1.4	3	0		22.66	22.56	22.59		
1.4	3	1		22.71	22.74	22.63		
1.4	3	3		22.66	22.64	22.57		
1.4	6	0		21.77	21.81	21.81		
1.4	1	0	64-QAM	21.80	21.84	21.80	11.23	0.0133
1.4	1	3		21.88	21.83	21.86		
1.4	1	5		21.79	21.76	21.80		
1.4	3	0		21.81	21.76	21.74		
1.4	3	1		21.85	21.77	21.90		
1.4	3	3		21.80	21.87	21.83		
1.4	6	0		20.71	20.67	20.71		
Limit	Power < 100W			Result			Pass	

LTE Band 26 Straddle Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
15	1	0	QPSK	-	23.53	-	13.15	0.0207
15	1	37		-	23.73	-		
15	1	74		-	23.82	-		
15	36	0		-	22.75	-		
15	36	20		-	22.81	-		
15	36	39		-	22.82	-		
15	75	0		-	22.59	-		
15	1	0	16-QAM	-	22.87	-	12.30	0.0170
15	1	37		-	22.96	-		
15	1	74		-	22.97	-		
15	36	0		-	21.75	-		
15	36	20		-	21.88	-		
15	36	39		-	21.90	-		
15	75	0		-	21.71	-		
15	1	0	64-QAM	-	21.88	-	11.35	0.0136
15	1	37		-	22.02	-		
15	1	74		-	21.86	-		
15	36	0		-	20.83	-		
15	36	20		-	20.88	-		
15	36	39		-	20.94	-		
15	75	0		-	20.79	-		
Limit	Reporting only			Result			N/A	

LTE Band 26 Straddle Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
10	1	0	QPSK	-	23.63	-	13.02	0.0200
10	1	25		-	23.51	-		
10	1	49		-	23.69	-		
10	25	0		-	22.57	-		
10	25	12		-	22.68	-		
10	25	25		-	22.74	-		
10	50	0		-	22.76	-		
10	1	0	16-QAM	-	22.93	-	12.29	0.0169
10	1	25		-	22.96	-		
10	1	49		-	22.85	-		
10	25	0		-	21.68	-		
10	25	12		-	21.74	-		
10	25	25		-	21.83	-		
10	50	0		-	21.83	-		
10	1	0	64-QAM	-	21.89	-	11.22	0.0132
10	1	25		-	21.87	-		
10	1	49		-	21.78	-		
10	25	0		-	20.68	-		
10	25	12		-	20.89	-		
10	25	25		-	20.84	-		
10	50	0		-	20.93	-		
Limit	Reporting only			Result			N/A	

LTE Band 26 Straddle Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
5	1	0	QPSK	-	23.53	-	12.86	0.0193
5	1	12		-	23.52	-		
5	1	24		-	23.50	-		
5	12	0		-	22.72	-		
5	12	7		-	22.60	-		
5	12	13		-	22.63	-		
5	25	0		-	22.62	-		
5	1	0	16-QAM	-	22.88	-	12.32	0.0171
5	1	12		-	22.99	-		
5	1	24		-	22.90	-		
5	12	0		-	21.65	-		
5	12	7		-	21.79	-		
5	12	13		-	21.68	-		
5	25	0		-	21.69	-		
5	1	0	64-QAM	-	21.97	-	11.30	0.0135
5	1	12		-	21.91	-		
5	1	24		-	21.93	-		
5	12	0		-	20.78	-		
5	12	7		-	20.88	-		
5	12	13		-	20.88	-		
5	25	0		-	20.79	-		
Limit	Reporting only			Result			N/A	

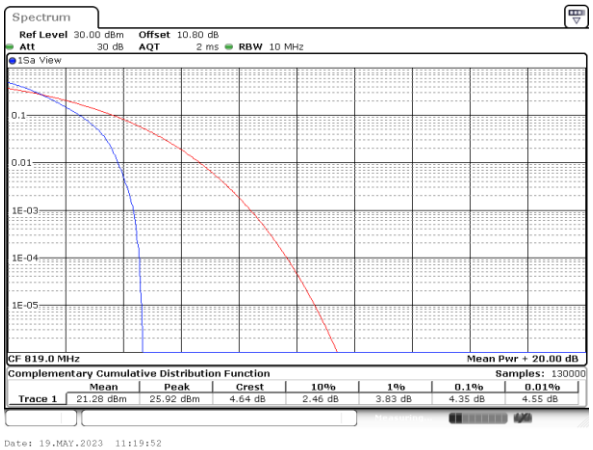
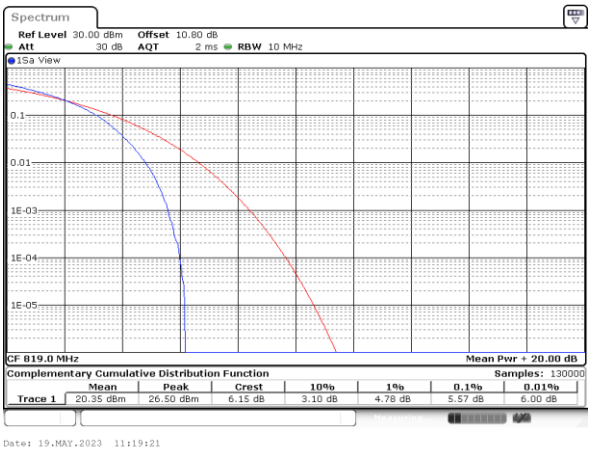
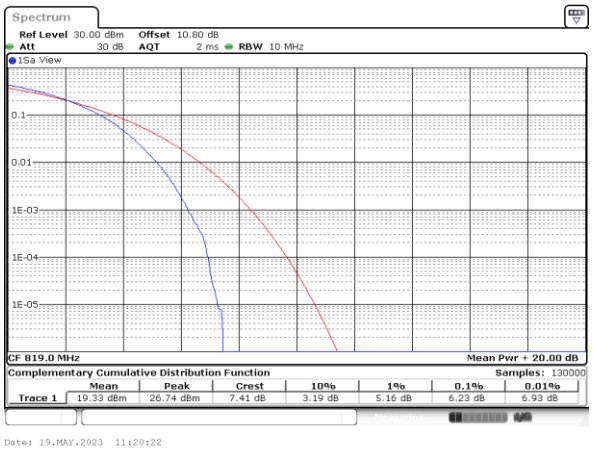
LTE Band 26 Straddle Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
3	1	0	QPSK	-	23.59	-	12.96	0.0198
3	1	8		-	23.63	-		
3	1	14		-	23.58	-		
3	8	0		-	22.74	-		
3	8	4		-	22.75	-		
3	8	7		-	22.63	-		
3	15	0		-	22.63	-		
3	1	0	16-QAM	-	22.99	-	12.32	0.0171
3	1	8		-	22.84	-		
3	1	14		-	22.83	-		
3	8	0		-	21.67	-		
3	8	4		-	21.84	-		
3	8	7		-	21.82	-		
3	15	0		-	21.69	-		
3	1	0	64-QAM	-	21.76	-	11.25	0.0133
3	1	8		-	21.92	-		
3	1	14		-	21.86	-		
3	8	0		-	20.79	-		
3	8	4		-	20.90	-		
3	8	7		-	20.81	-		
3	15	0		-	20.73	-		
Limit	Reporting only			Result			N/A	

LTE Band 26 Straddle Maximum Average Power [dBm] (GT - LC = -8.52 dB)								
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest	ERP (dBm)	ERP (W)
1.4	1	0	QPSK	-	23.61	-	12.94	0.0197
1.4	1	3		-	23.55	-		
1.4	1	5		-	23.49	-		
1.4	3	0		-	23.49	-		
1.4	3	1		-	23.60	-		
1.4	3	3		-	23.55	-		
1.4	6	0		-	22.70	-		
1.4	1	0	16-QAM	-	22.91	-	12.24	0.0167
1.4	1	3		-	22.83	-		
1.4	1	5		-	22.77	-		
1.4	3	0		-	22.59	-		
1.4	3	1		-	22.61	-		
1.4	3	3		-	22.61	-		
1.4	6	0		-	21.70	-		
1.4	1	0	64-QAM	-	21.72	-	11.20	0.0132
1.4	1	3		-	21.84	-		
1.4	1	5		-	21.87	-		
1.4	3	0		-	21.84	-		
1.4	3	1		-	21.75	-		
1.4	3	3		-	21.80	-		
1.4	6	0		-	20.80	-		
Limit	Reporting only			Result			N/A	

LTE Band 26

Peak-to-Average Ratio

Mode	LTE Band 26 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.35	5.57	6.23	PASS

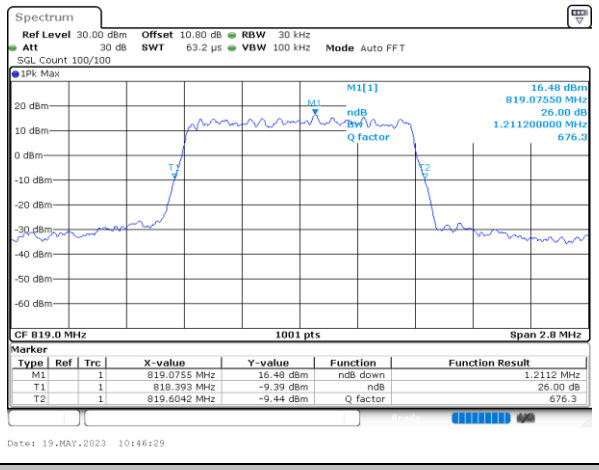
LTE Band 26 / 10MHz / QPSK	LTE Band 26 / 10MHz / 16QAM
Middle Channel / Full RB	Middle Channel / Full RB
	
LTE Band 26 / 10MHz / 64QAM	
Middle Channel / Full RB	
	

26dB Bandwidth

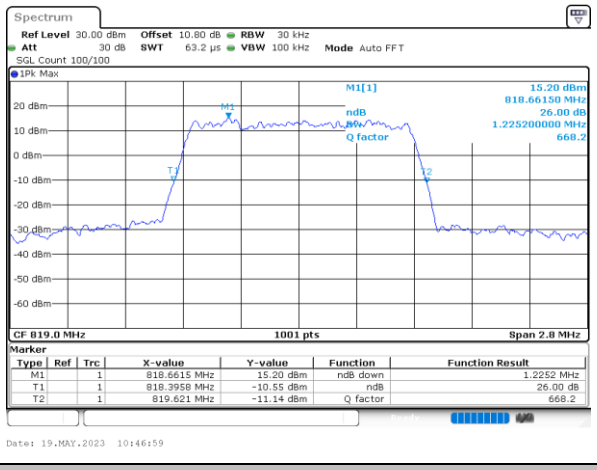
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Low CH	-	-	-	-	-	-	-	-	14.27	14.42	-	-
Middle CH	1.21	1.23	2.99	2.99	4.89	4.90	9.79	9.71	-	-	-	-
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Low CH	-	-	-	-	-	-	-	-	14.39	-	-	-
Middle CH	1.21	-	2.97	-	4.82	-	9.75	-	-	-	-	-

LTE Band 26

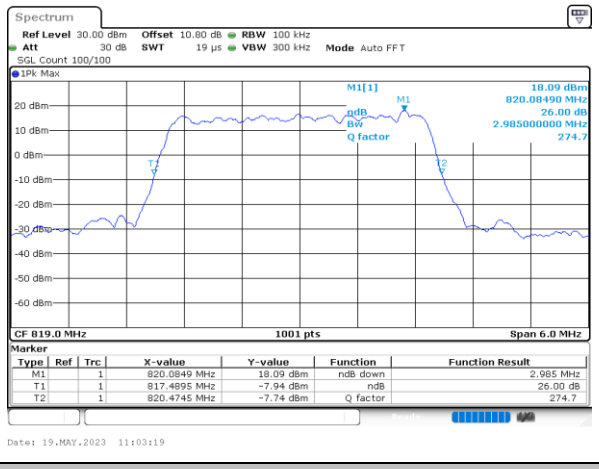
Middle Channel / 1.4MHz / QPSK



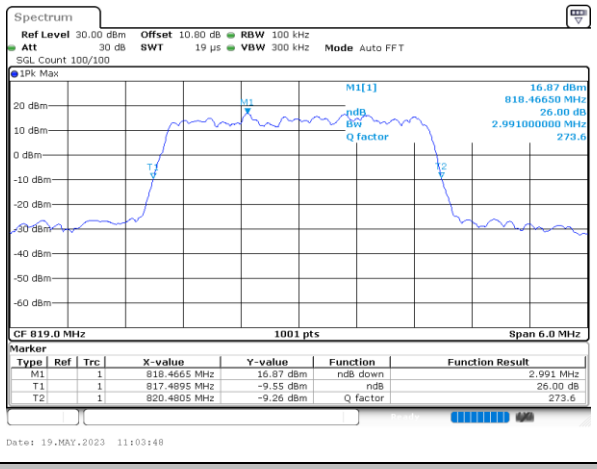
Middle Channel / 1.4MHz / 16QAM



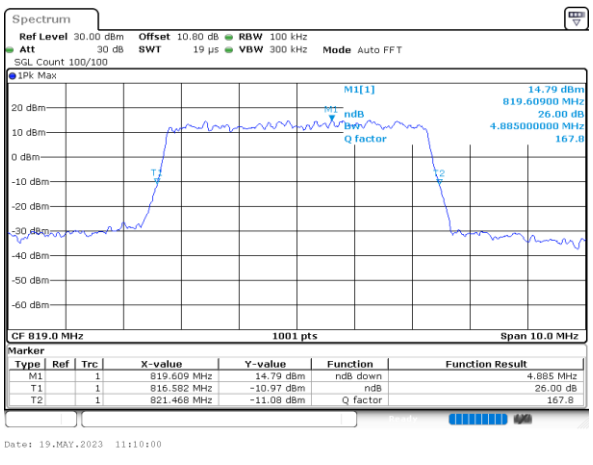
Middle Channel / 3MHz / QPSK



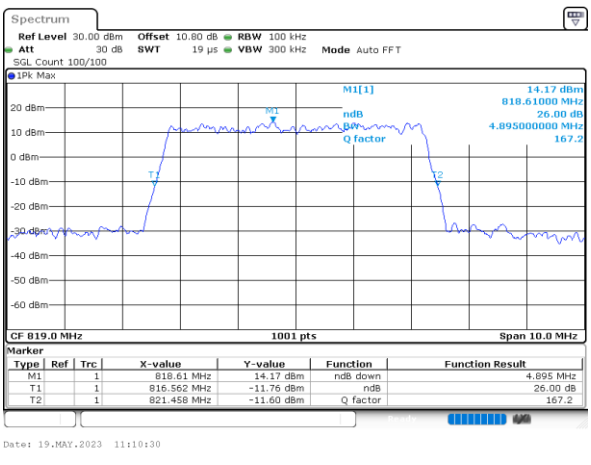
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK

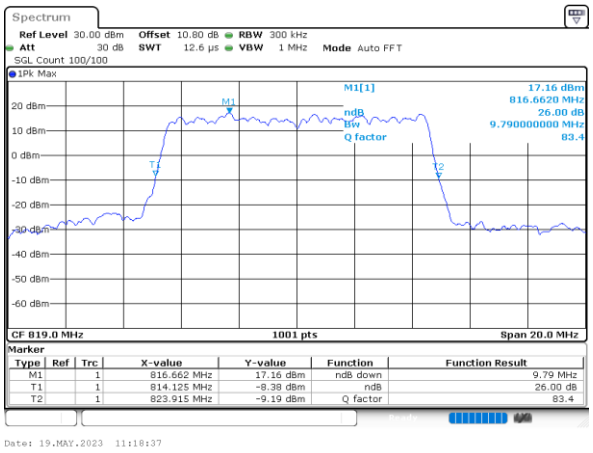


Middle Channel / 5MHz / 16QAM

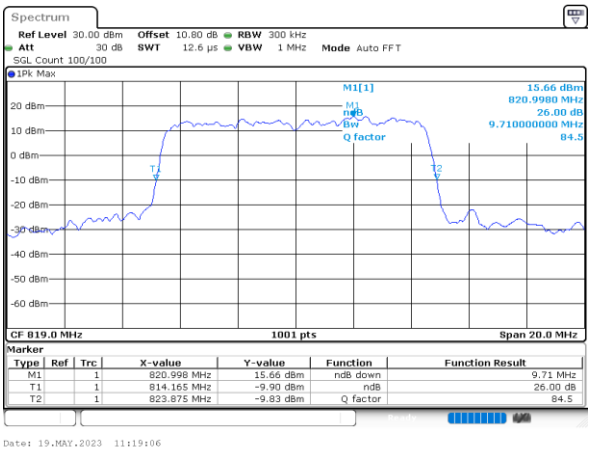


LTE Band 26

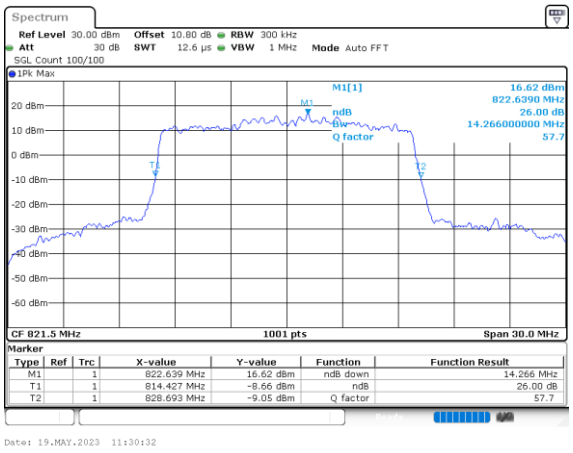
Middle Channel / 10MHz / QPSK



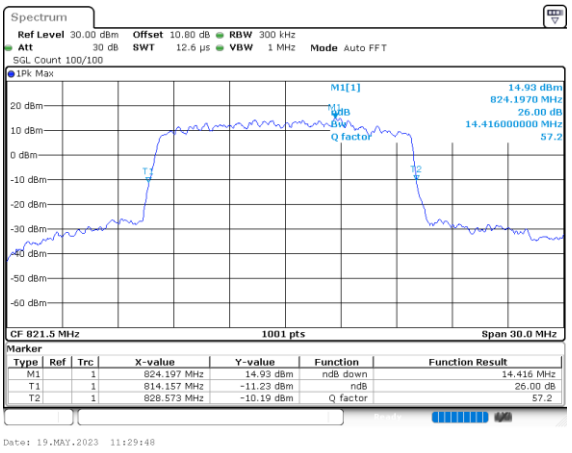
Middle Channel / 10MHz / 16QAM



Low Channel / 15MHz / QPSK

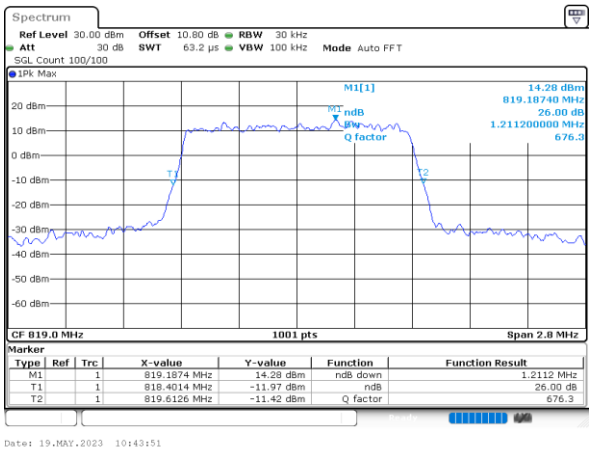


Low Channel / 15MHz / 16QAM

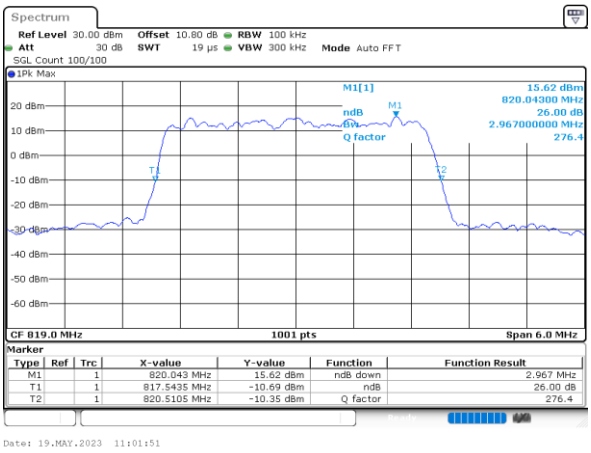


LTE Band 26

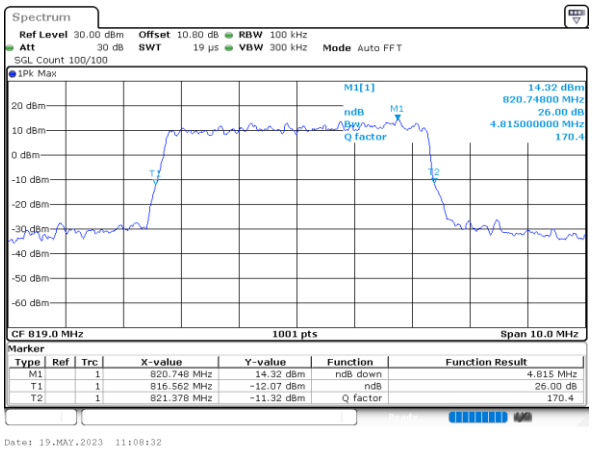
Middle Channel / 1.4MHz / 64QAM



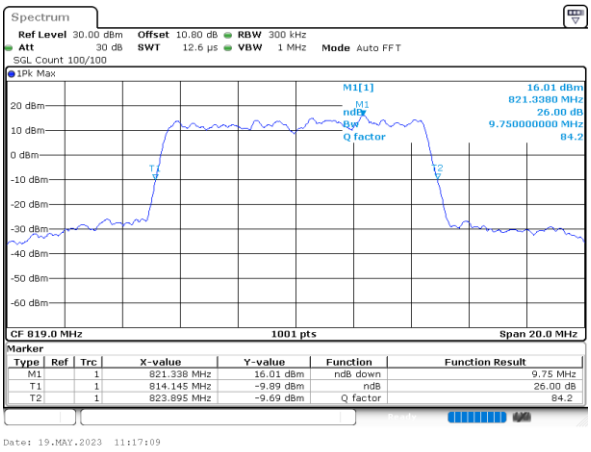
Middle Channel / 3MHz / 64QAM



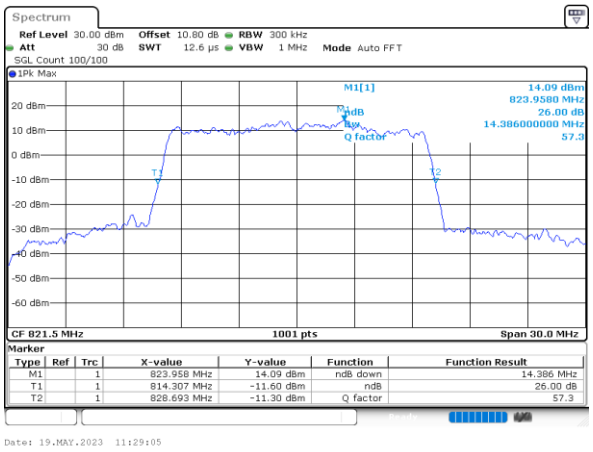
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Low Channel / 15MHz / 64QAM

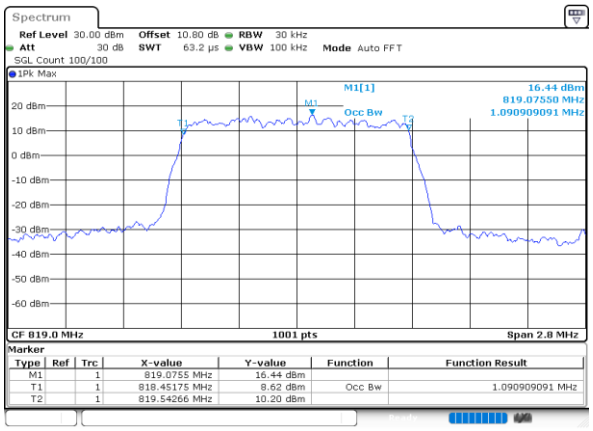


Occupied Bandwidth

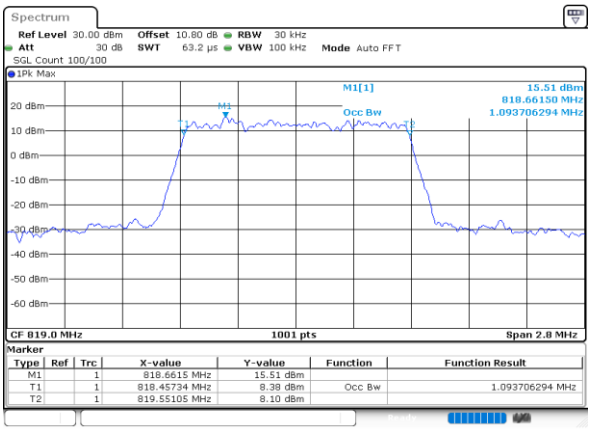
Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Low CH	-	-	-	-	-	-	-	-	13.28	13.31	-	-
Middle CH	1.09	1.09	2.72	2.73	4.50	4.47	9.01	8.97	-	-	-	-
Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Low CH	-	-	-	-	-	-	-	-	13.31	-	-	-
Middle CH	1.10	-	2.72	-	4.49	-	8.95	-	-	-	-	-

LTE Band 26

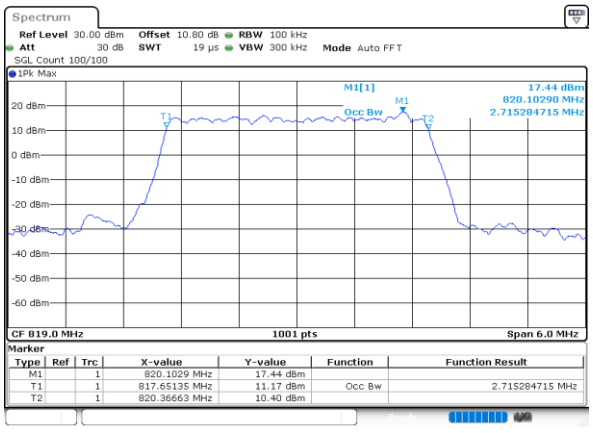
Middle Channel / 1.4MHz / QPSK



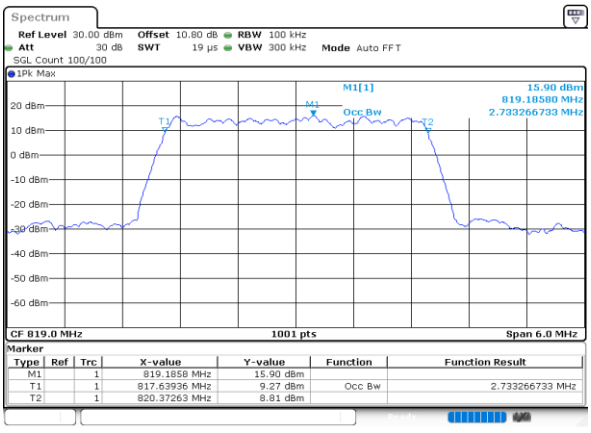
Middle Channel / 1.4MHz / 16QAM



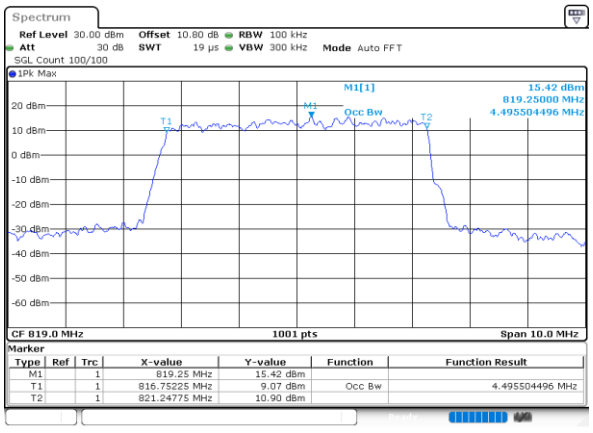
Middle Channel / 3MHz / QPSK



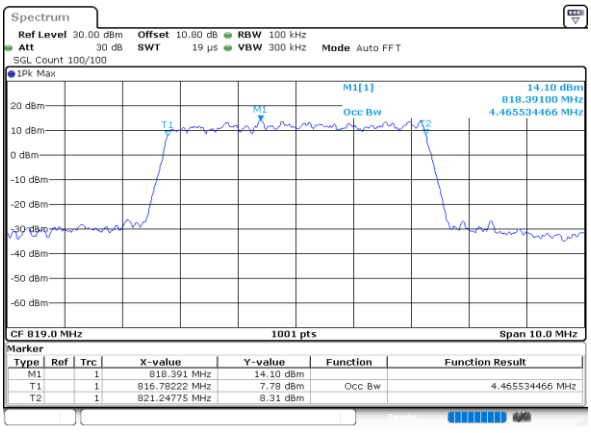
Middle Channel / 3MHz / 16QAM

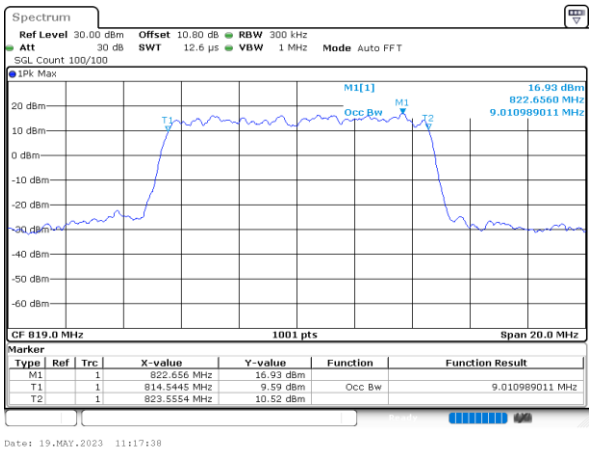
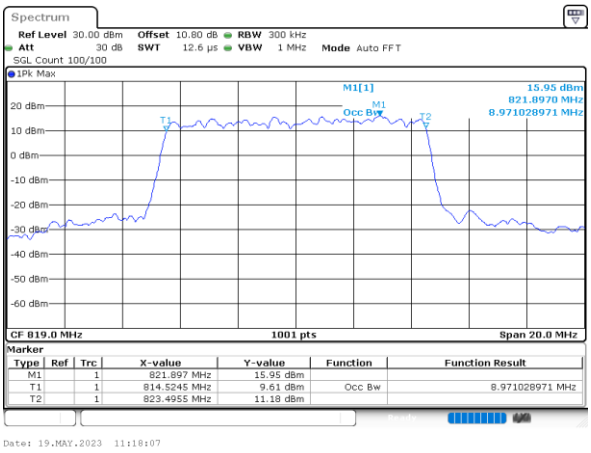
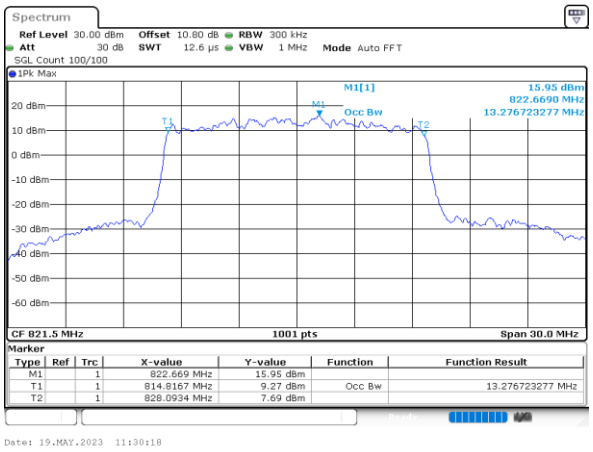
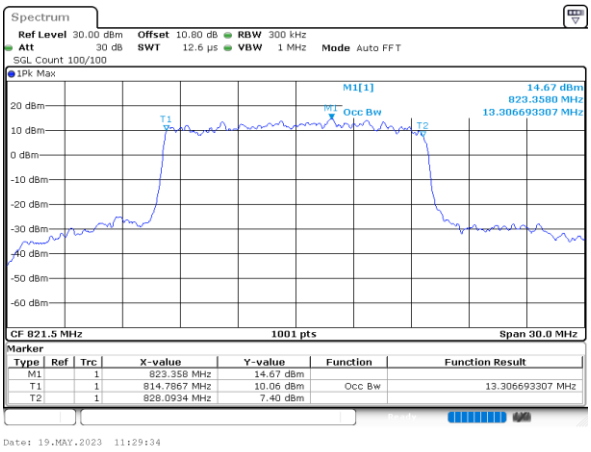


Middle Channel / 5MHz / QPSK



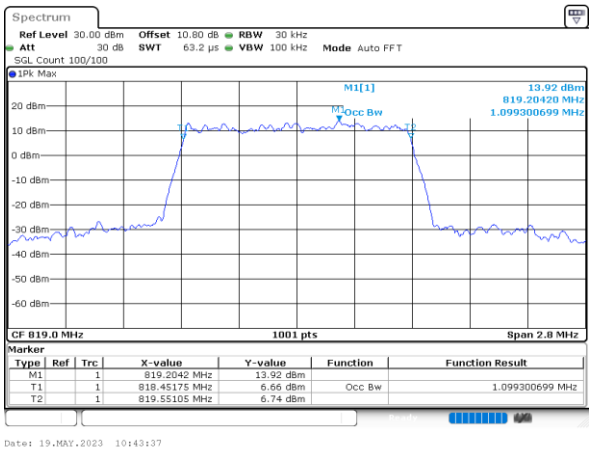
Middle Channel / 5MHz / 16QAM



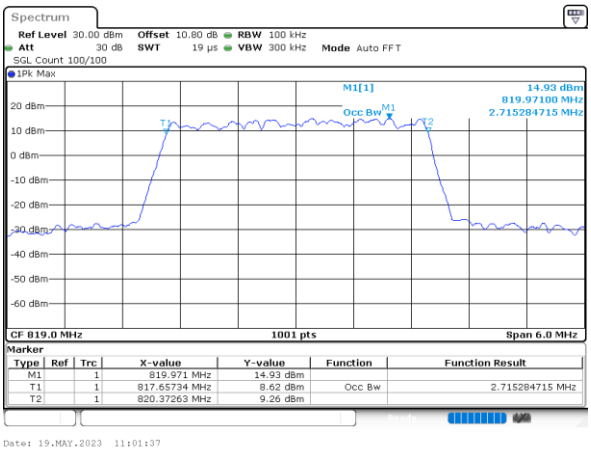
LTE Band 26	
Middle Channel / 10MHz / QPSK	**Middle Channel / 10MHz / 16QAM**
	
Low Channel / 15MHz / QPSK	**Low Channel / 15MHz / 16QAM**
	

LTE Band 26

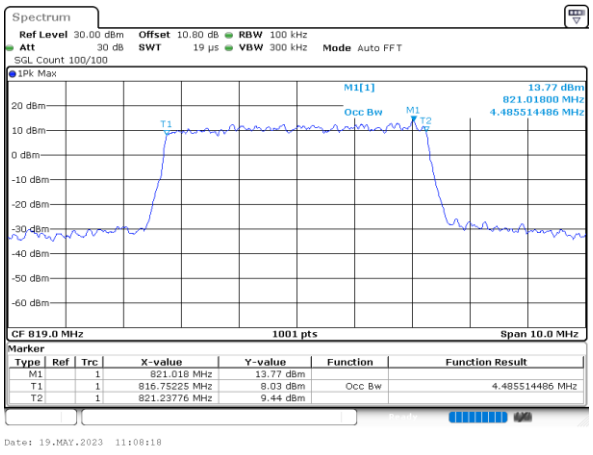
Middle Channel / 1.4MHz / 64QAM



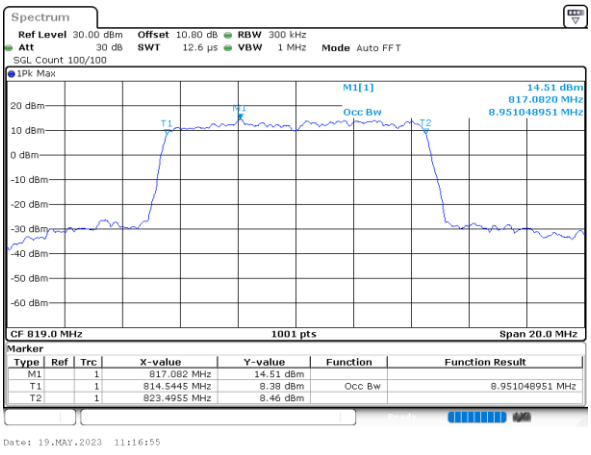
Middle Channel / 3MHz / 64QAM



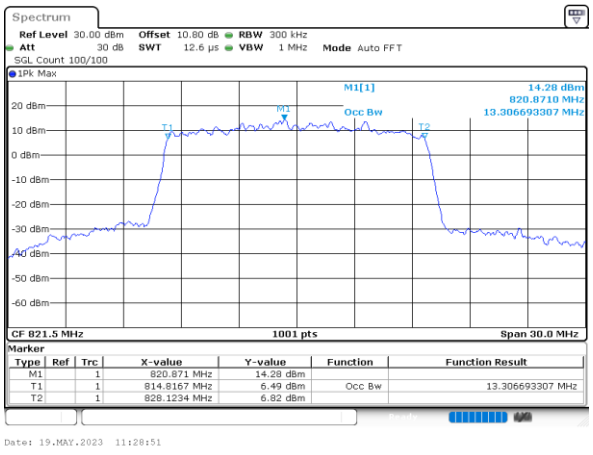
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



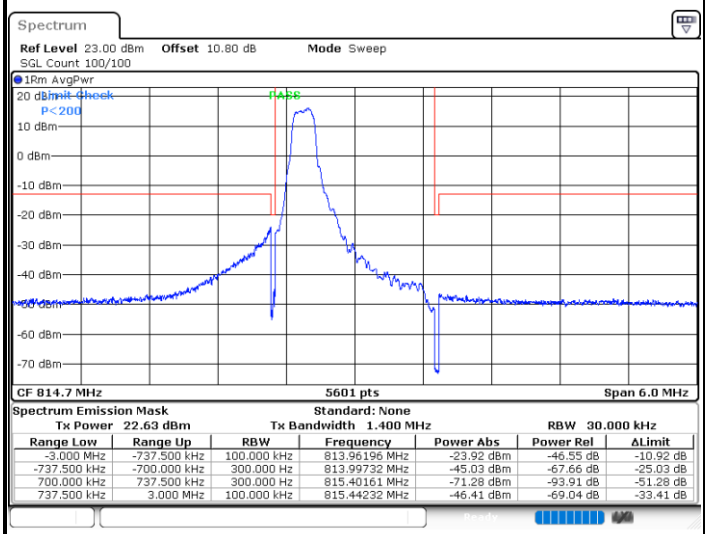
Low Channel / 5MHz / 64QAM



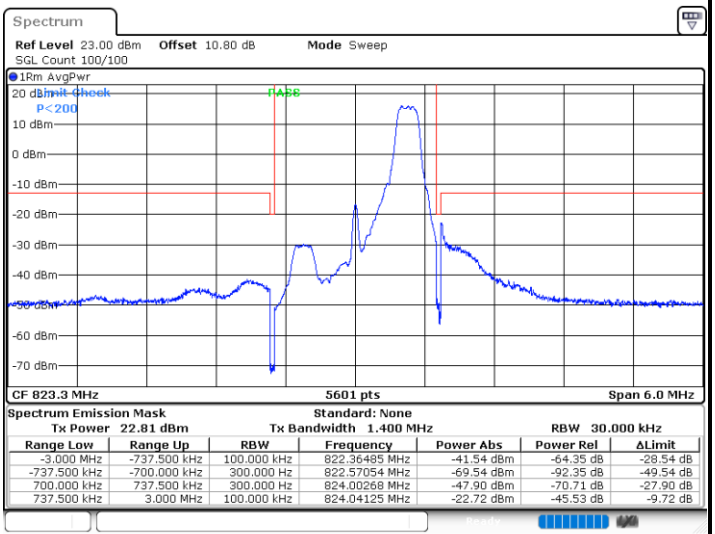
Emission masks – In-band emissions

LTE Band 26 / 1.4MHz / QPSK

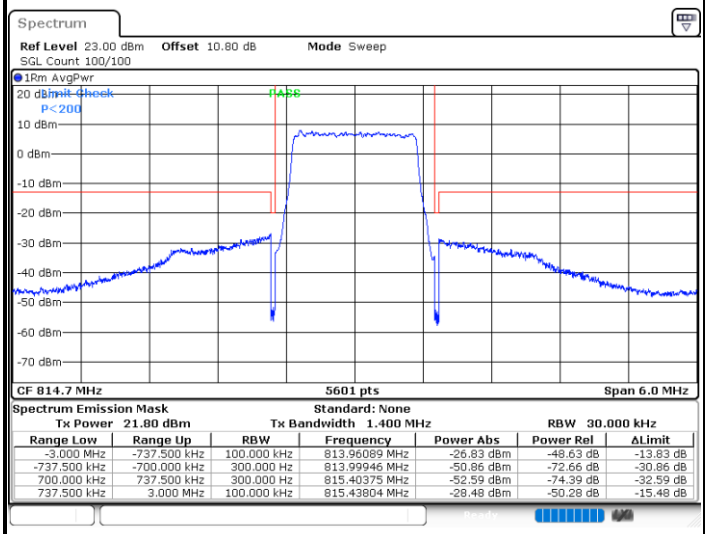
Lowest Band Edge / 1RB



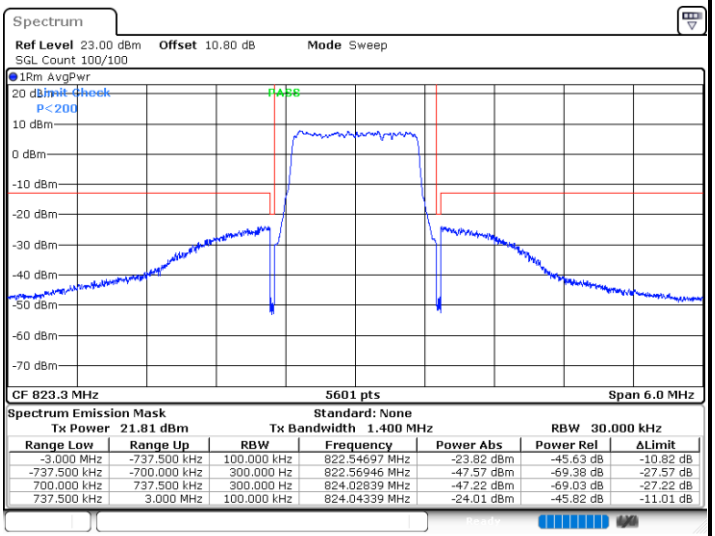
Highest Band Edge / 1RB



Lowest Band Edge / Full RB

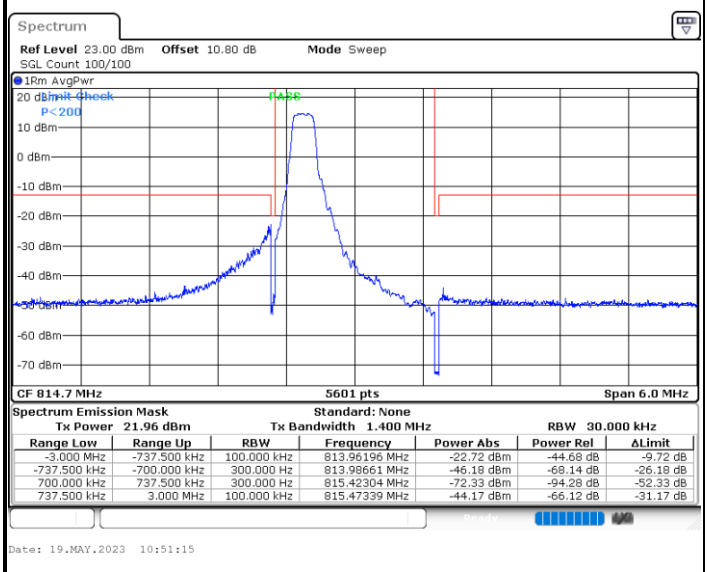


Highest Band Edge / Full RB



LTE Band 26 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Spectrum Emission Mask Standard: None
Tx Power 21.96 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	813.96196 MHz	-22.72 dBm	-44.68 dB	-9.72 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	813.98661 MHz	-46.18 dBm	-68.14 dB	-26.18 dB
700.000 kHz	737.500 kHz	300.000 Hz	815.42304 MHz	-72.33 dBm	-94.28 dB	-52.33 dB
737.500 kHz	3.000 MHz	100.000 kHz	815.47339 MHz	-44.17 dBm	-66.12 dB	-31.17 dB

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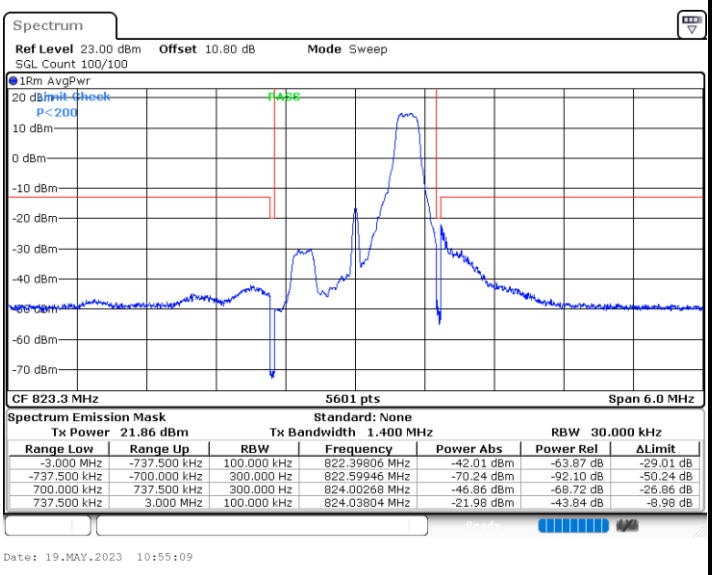
Highest Band Edge / 1 RB

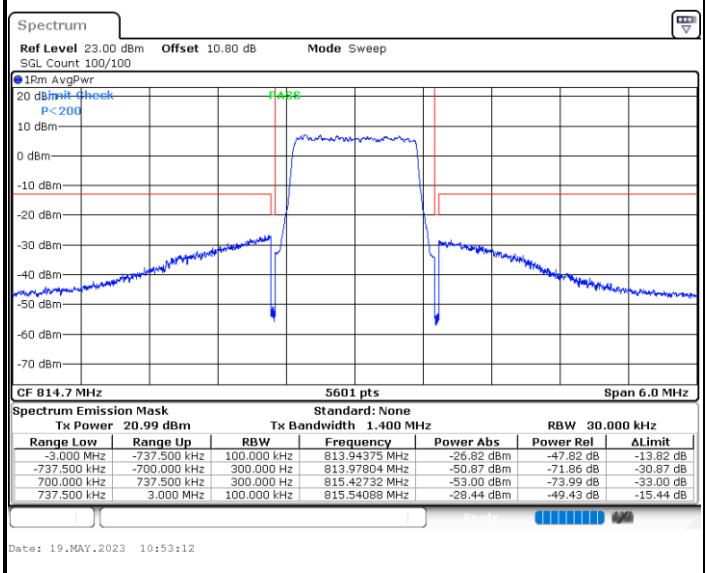


Spectrum Emission Mask Standard: None
Tx Power 21.86 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	822.39806 MHz	-42.01 dBm	-63.87 dB	-29.01 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	822.59946 MHz	-70.24 dBm	-92.10 dB	-50.24 dB
700.000 kHz	737.500 kHz	300.000 Hz	824.00268 MHz	-46.86 dBm	-68.72 dB	-26.86 dB
737.500 kHz	3.000 MHz	100.000 kHz	824.03804 MHz	-21.98 dBm	-43.84 dB	-8.98 dB

Date: 19.MAY.2023 10:55:09

Lowest Band Edge / Full RB

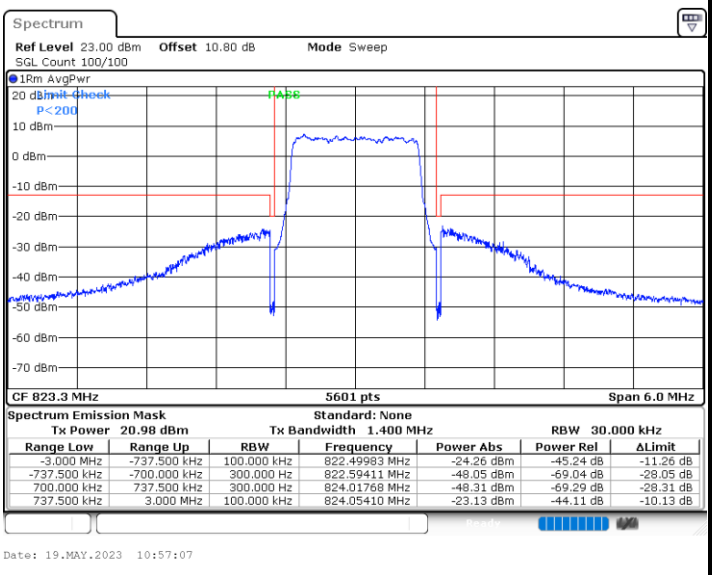


Spectrum Emission Mask Standard: None
Tx Power 20.99 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	813.94375 MHz	-26.82 dBm	-47.82 dB	-13.82 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	813.97804 MHz	-50.87 dBm	-71.86 dB	-30.87 dB
700.000 kHz	737.500 kHz	300.000 Hz	815.42732 MHz	-53.00 dBm	-73.99 dB	-33.00 dB
737.500 kHz	3.000 MHz	100.000 kHz	815.54088 MHz	-28.44 dBm	-49.43 dB	-15.44 dB

Date: 19.MAY.2023 10:53:12

Highest Band Edge / Full RB



Spectrum Emission Mask Standard: None
Tx Power 20.98 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	822.49983 MHz	-24.26 dBm	-45.24 dB	-11.26 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	822.59411 MHz	-48.05 dBm	-69.04 dB	-28.05 dB
700.000 kHz	737.500 kHz	300.000 Hz	824.01768 MHz	-48.31 dBm	-69.29 dB	-28.31 dB
737.500 kHz	3.000 MHz	100.000 kHz	824.05410 MHz	-23.13 dBm	-44.11 dB	-10.13 dB

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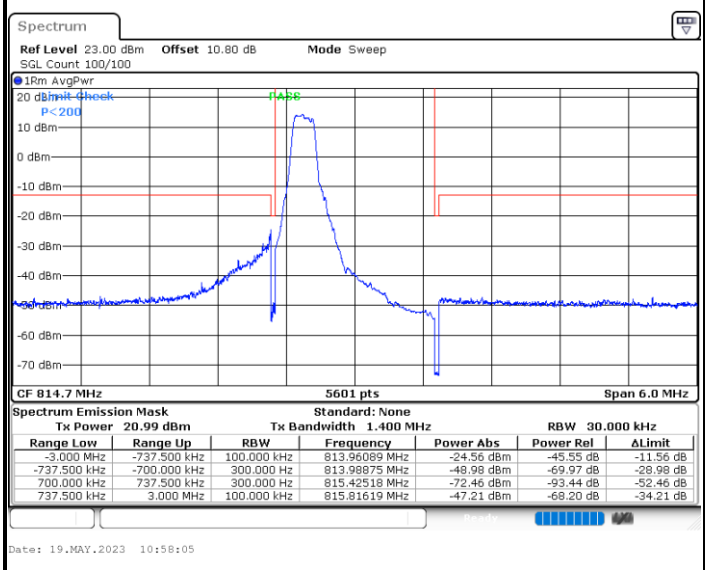
LTE Band 26 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



Spectrum Emission Mask Standard: None
Tx Power 20.99 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	813.96089 MHz	-24.56 dBm	-45.55 dB	-11.56 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	813.98875 MHz	-48.98 dBm	-69.97 dB	-28.98 dB
700.000 kHz	737.500 kHz	300.000 Hz	815.42518 MHz	-72.46 dBm	-93.44 dB	-52.46 dB
737.500 kHz	3.000 MHz	100.000 kHz	815.81619 MHz	-47.21 dBm	-68.20 dB	-34.21 dB

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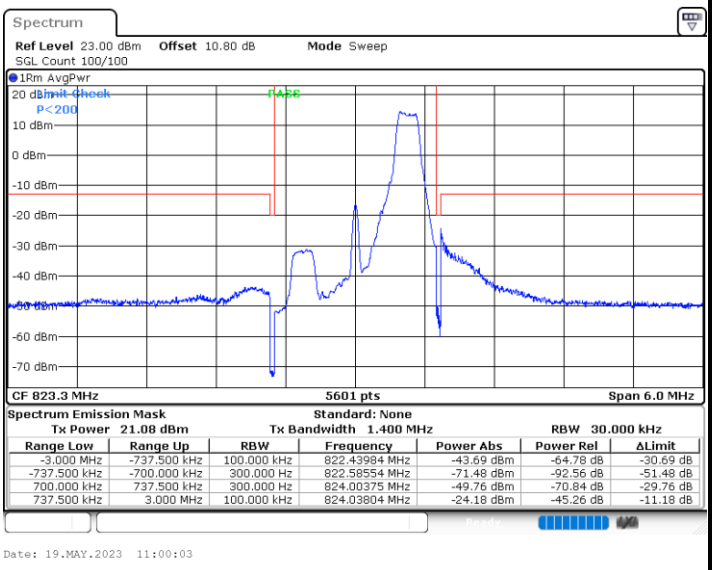
Highest Band Edge / 1 RB



Spectrum Emission Mask Standard: None
Tx Power 21.08 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	822.43984 MHz	-43.69 dBm	-64.78 dB	-30.69 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	822.58554 MHz	-71.48 dBm	-92.56 dB	-51.48 dB
700.000 kHz	737.500 kHz	300.000 Hz	824.00375 MHz	-49.76 dBm	-70.84 dB	-29.76 dB
737.500 kHz	3.000 MHz	100.000 kHz	824.03804 MHz	-24.18 dBm	-45.26 dB	-11.18 dB

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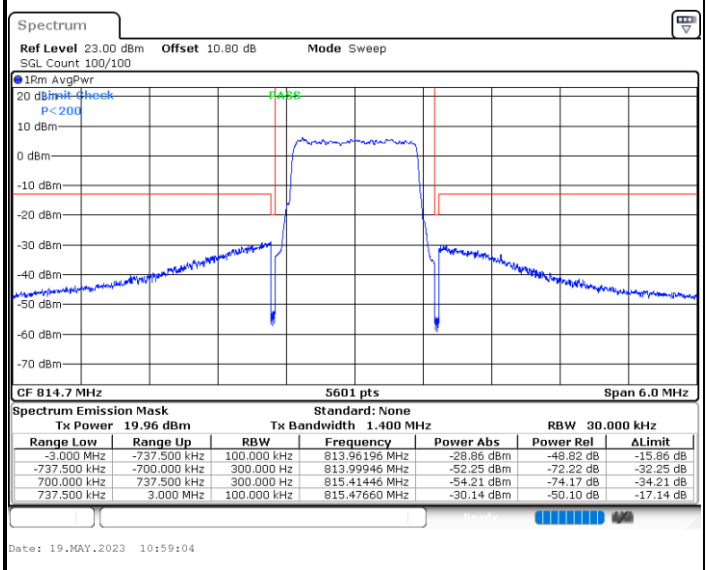
Lowest Band Edge / Full RB

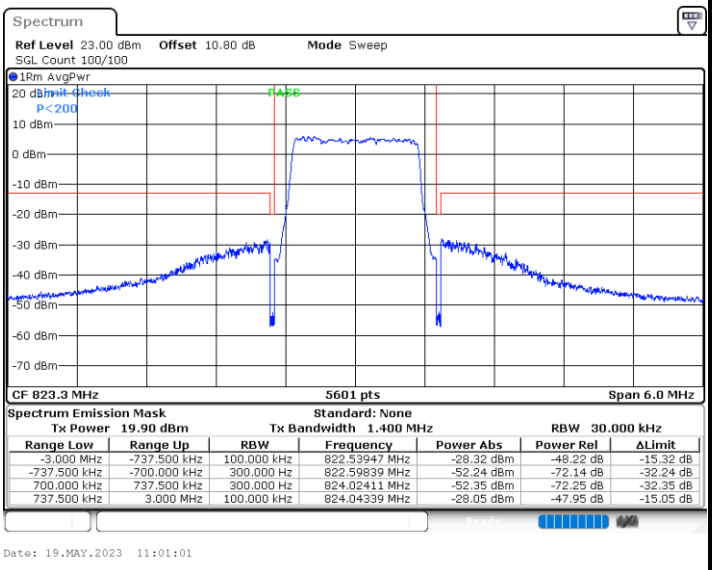


Spectrum Emission Mask Standard: None
Tx Power 19.96 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	813.96196 MHz	-28.86 dBm	-48.82 dB	-15.86 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	813.99946 MHz	-52.25 dBm	-72.22 dB	-32.25 dB
700.000 kHz	737.500 kHz	300.000 Hz	815.41446 MHz	-54.21 dBm	-74.17 dB	-34.21 dB
737.500 kHz	3.000 MHz	100.000 kHz	815.47660 MHz	-30.14 dBm	-50.10 dB	-17.14 dB

Date: 19.MAY.2023 10:59:04

Highest Band Edge / Full RB



Spectrum Emission Mask Standard: None
Tx Power 19.90 dBm Tx Bandwidth 1.400 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-3.000 MHz	-737.500 kHz	100.000 kHz	822.53947 MHz	-28.32 dBm	-48.22 dB	-15.32 dB
-737.500 kHz	-700.000 kHz	300.000 Hz	822.59839 MHz	-52.24 dBm	-72.14 dB	-32.24 dB
700.000 kHz	737.500 kHz	300.000 Hz	824.02411 MHz	-52.35 dBm	-72.25 dB	-32.35 dB
737.500 kHz	3.000 MHz	100.000 kHz	824.04339 MHz	-28.05 dBm	-47.95 dB	-15.05 dB

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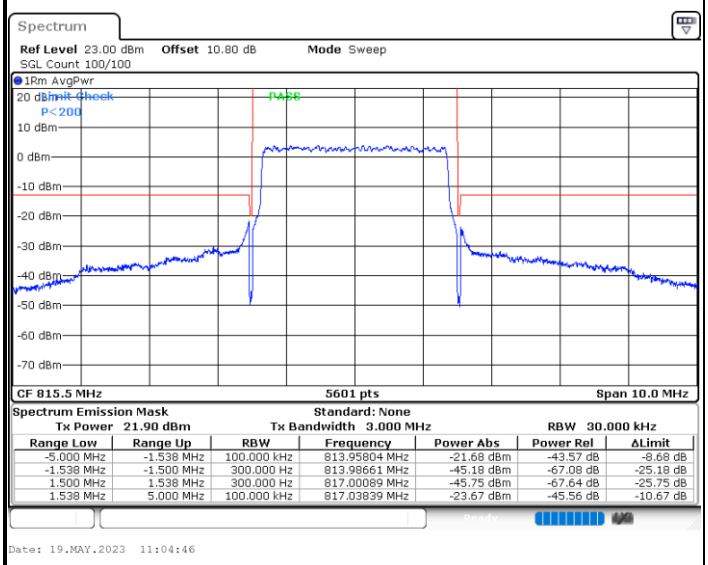
LTE Band 26 / 3MHz / QPSK

Lowest Band Edge / Full RB



Spectrum Emission Mask Standard: None
Tx Power 21.90 dBm Tx Bandwidth 3.000 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-5.000 MHz	-1.538 MHz	100.000 kHz	813.95804 MHz	-21.68 dBm	-43.57 dB	-8.68 dB
-1.538 MHz	-1.500 MHz	300.000 Hz	813.98661 MHz	-45.18 dBm	-67.08 dB	-25.18 dB
1.500 MHz	1.538 MHz	300.000 Hz	817.00089 MHz	-45.75 dBm	-67.64 dB	-25.75 dB
1.538 MHz	5.000 MHz	100.000 kHz	817.03839 MHz	-23.67 dBm	-45.56 dB	-10.67 dB

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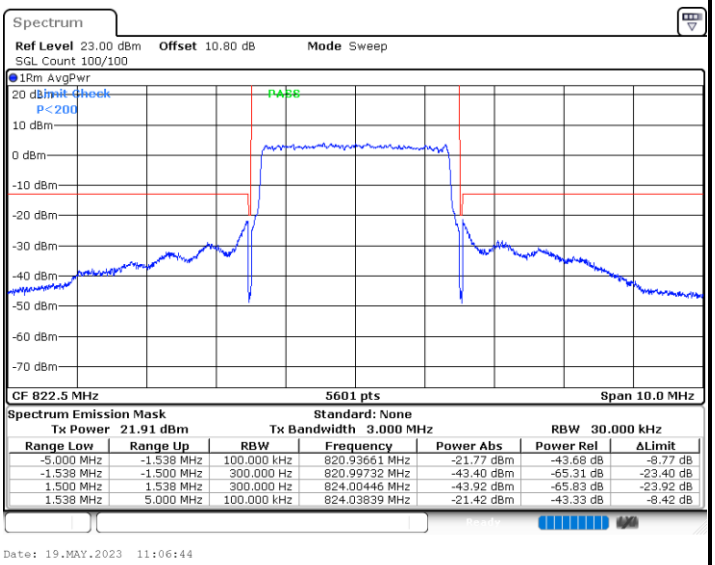
Highest Band Edge / Full RB



Spectrum Emission Mask Standard: None
Tx Power 21.91 dBm Tx Bandwidth 3.000 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-5.000 MHz	-1.538 MHz	100.000 kHz	820.93661 MHz	-21.77 dBm	-43.68 dB	-8.77 dB
-1.538 MHz	-1.500 MHz	300.000 Hz	820.99732 MHz	-43.40 dBm	-65.31 dB	-23.40 dB
1.500 MHz	1.538 MHz	300.000 Hz	824.00446 MHz	-43.92 dBm	-65.83 dB	-23.92 dB
1.538 MHz	5.000 MHz	100.000 kHz	824.03839 MHz	-21.42 dBm	-43.33 dB	-8.42 dB

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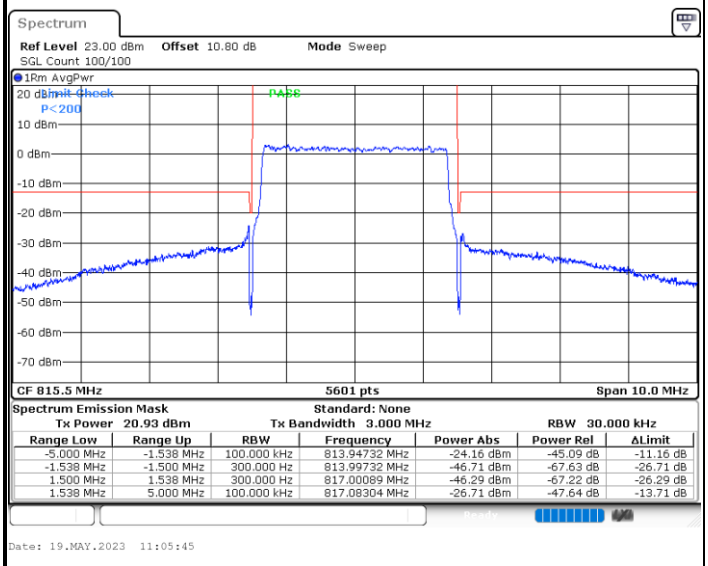
LTE Band 26 / 3MHz / 16QAM

Lowest Band Edge / Full RB

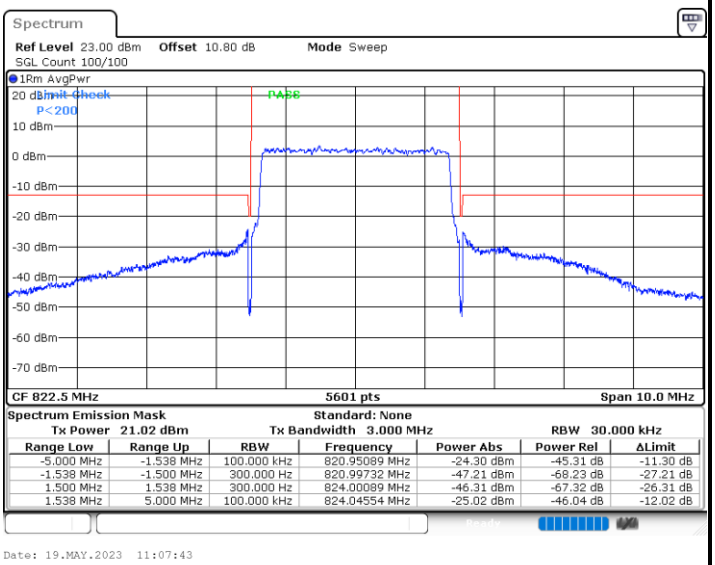


Spectrum Emission Mask Standard: None
Tx Power 20.93 dBm Tx Bandwidth 3.000 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-5.000 MHz	-1.538 MHz	100.000 kHz	813.94732 MHz	-24.16 dBm	-45.09 dB	-11.16 dB
-1.538 MHz	-1.500 MHz	300.000 Hz	813.99732 MHz	-46.71 dBm	-67.63 dB	-26.71 dB
1.500 MHz	1.538 MHz	300.000 Hz	817.00089 MHz	-46.29 dBm	-67.22 dB	-26.29 dB
1.538 MHz	5.000 MHz	100.000 kHz	817.08304 MHz	-26.71 dBm	-47.64 dB	-13.71 dB

Date: 19.MAY.2023 11:05:45

Highest Band Edge / Full RB

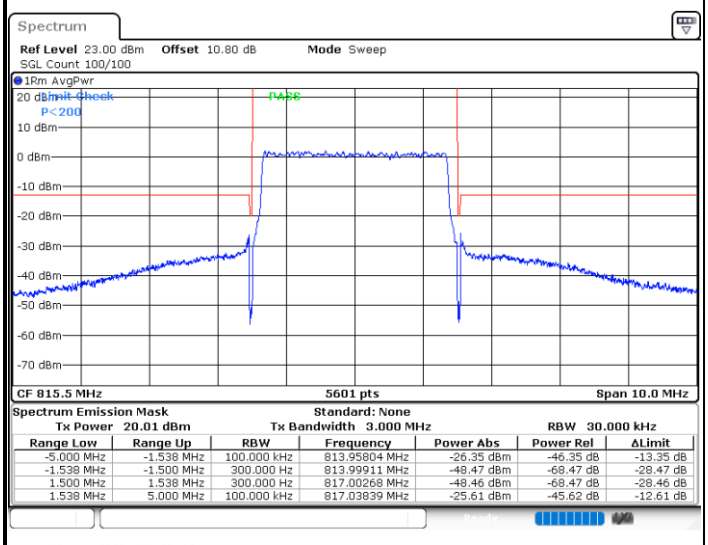


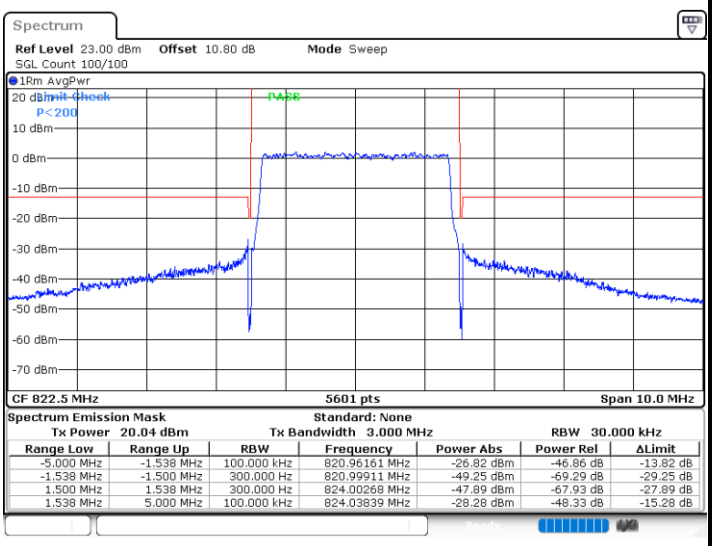
Spectrum Emission Mask Standard: None
Tx Power 21.02 dBm Tx Bandwidth 3.000 MHz RBW 30.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-5.000 MHz	-1.538 MHz	100.000 kHz	820.95089 MHz	-24.30 dBm	-45.31 dB	-11.30 dB
-1.538 MHz	-1.500 MHz	300.000 Hz	820.99732 MHz	-47.21 dBm	-68.23 dB	-27.21 dB
1.500 MHz	1.538 MHz	300.000 Hz	824.00089 MHz	-46.31 dBm	-67.32 dB	-26.31 dB
1.538 MHz	5.000 MHz	100.000 kHz	824.04554 MHz	-25.02 dBm	-46.04 dB	-12.02 dB

Date: 19.MAY.2023 11:07:43

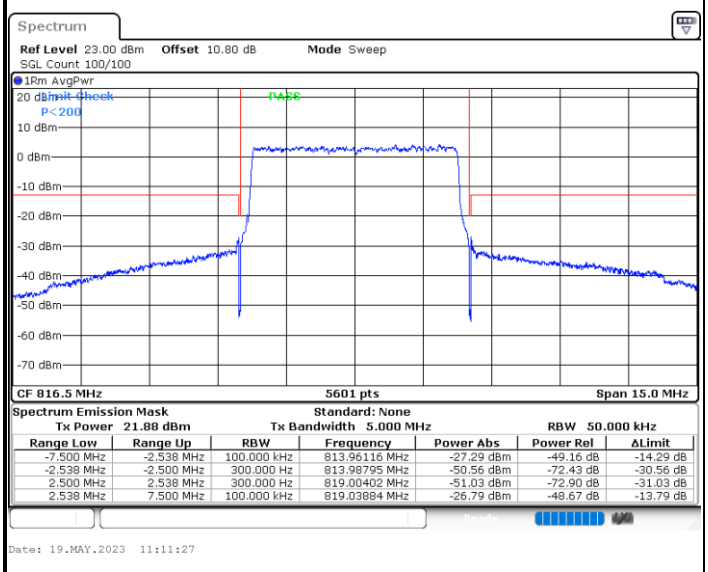
LTE Band 26 / 3MHz / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**





LTE Band 26 / 5MHz / QPSK

Lowest Band Edge / Full RB

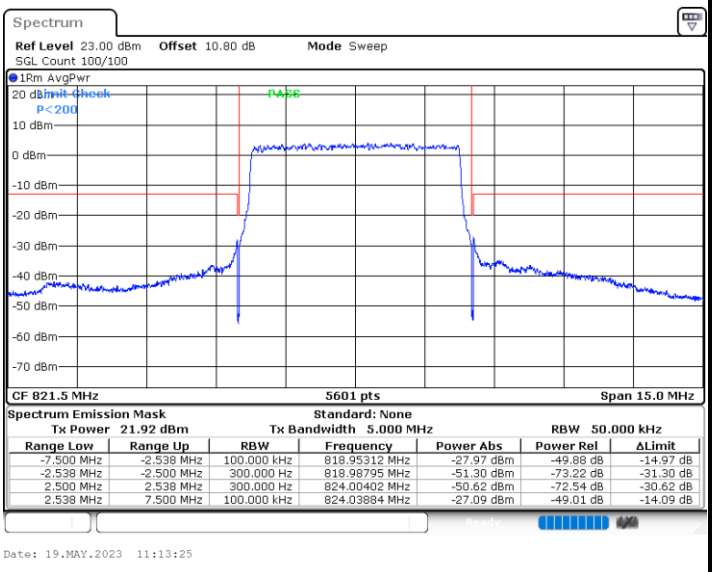


Spectrum Emission Mask Standard: None
Tx Power 21.88 dBm Tx Bandwidth 5.000 MHz RBW 50.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-7.500 MHz	-2.538 MHz	100.000 kHz	813.96116 MHz	-27.29 dBm	-49.16 dB	-14.29 dB
-2.538 MHz	-2.500 MHz	300.000 Hz	813.98795 MHz	-50.56 dBm	-72.43 dB	-30.56 dB
2.500 MHz	2.538 MHz	300.000 Hz	819.00402 MHz	-51.03 dBm	-72.90 dB	-31.03 dB
2.538 MHz	7.500 MHz	100.000 kHz	819.03884 MHz	-26.79 dBm	-48.67 dB	-13.79 dB

Date: 19.MAY.2023 11:11:27

Highest Band Edge / Full RB



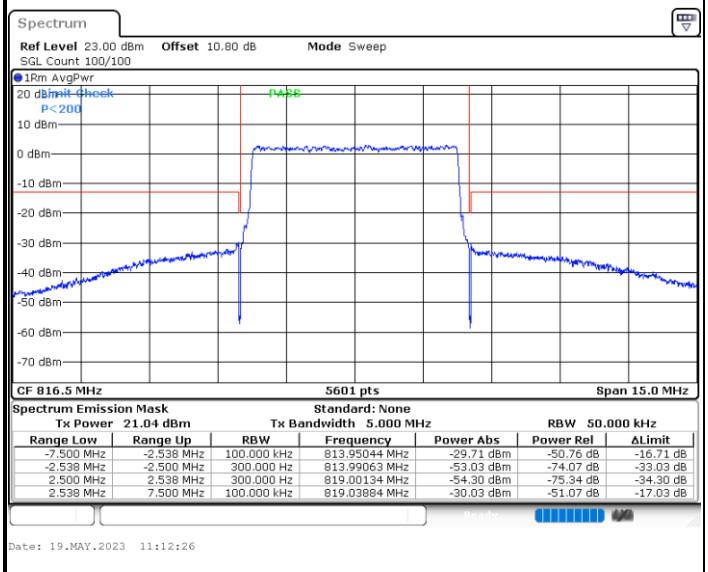
Spectrum Emission Mask Standard: None
Tx Power 21.92 dBm Tx Bandwidth 5.000 MHz RBW 50.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-7.500 MHz	-2.538 MHz	100.000 kHz	818.95312 MHz	-27.97 dBm	-49.88 dB	-14.97 dB
-2.538 MHz	-2.500 MHz	300.000 Hz	818.98795 MHz	-51.30 dBm	-73.22 dB	-31.30 dB
2.500 MHz	2.538 MHz	300.000 Hz	824.00402 MHz	-50.62 dBm	-72.54 dB	-30.62 dB
2.538 MHz	7.500 MHz	100.000 kHz	824.03884 MHz	-27.09 dBm	-49.01 dB	-14.09 dB

Date: 19.MAY.2023 11:13:25

LTE Band 26 / 5MHz / 16QAM

Lowest Band Edge / Full RB

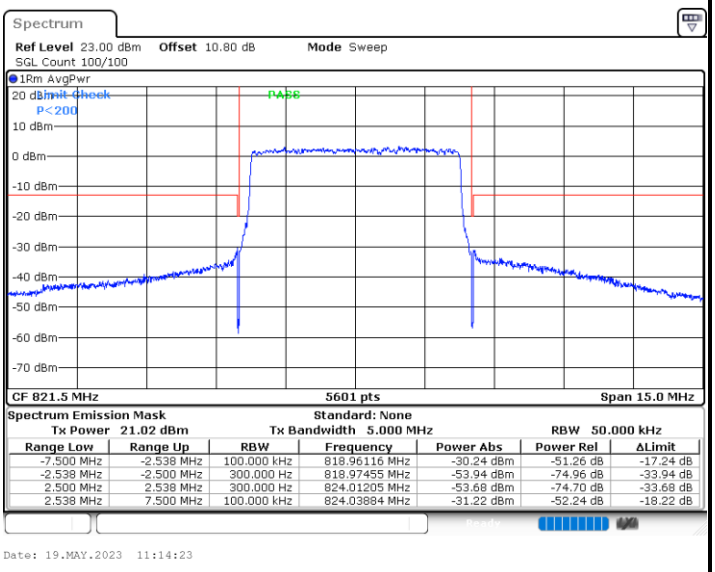


Spectrum Emission Mask Standard: None
Tx Power 21.04 dBm Tx Bandwidth 5.000 MHz RBW 50.000 kHz

Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-7.500 MHz	-2.538 MHz	100.000 kHz	813.95044 MHz	-29.71 dBm	-50.76 dB	-16.71 dB
-2.538 MHz	-2.500 MHz	300.000 Hz	813.99063 MHz	-53.03 dBm	-74.07 dB	-33.03 dB
2.500 MHz	2.538 MHz	300.000 Hz	819.00134 MHz	-54.30 dBm	-75.34 dB	-34.30 dB
2.538 MHz	7.500 MHz	100.000 kHz	819.03884 MHz	-30.03 dBm	-51.07 dB	-17.03 dB

Date: 19.MAY.2023 11:12:26

Highest Band Edge / Full RB

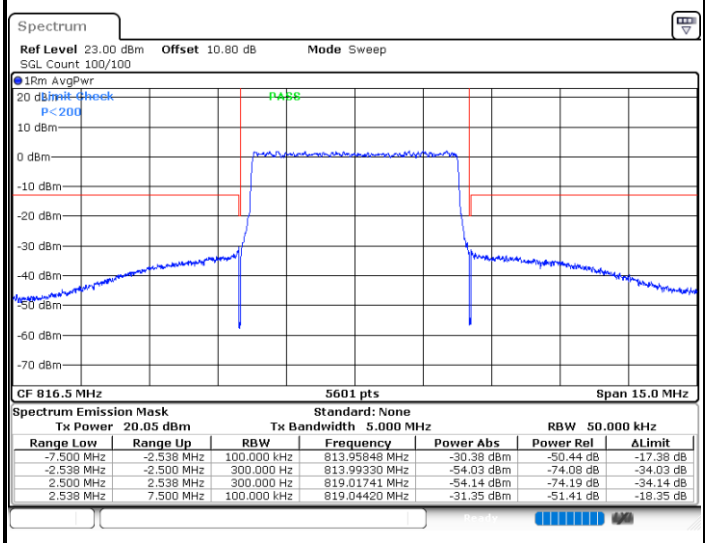


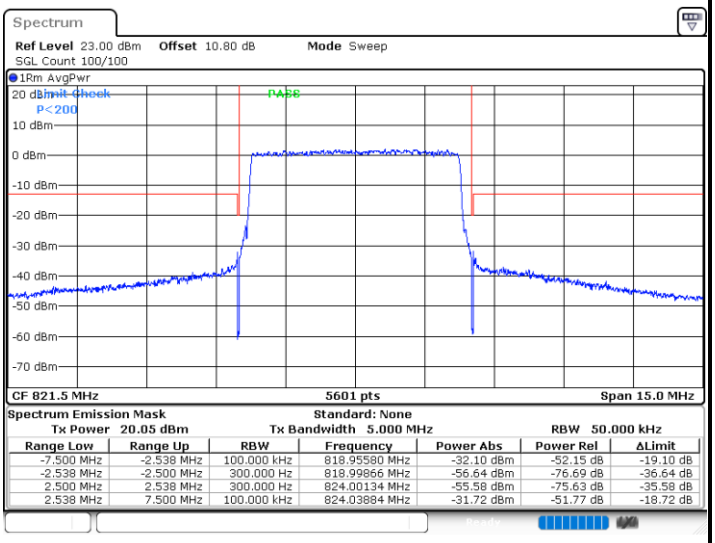
Spectrum Emission Mask Standard: None
Tx Power 21.02 dBm Tx Bandwidth 5.000 MHz RBW 50.000 kHz

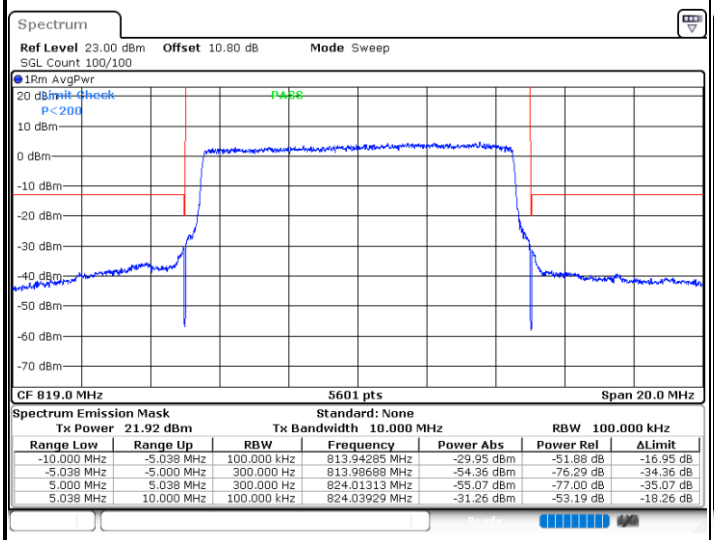
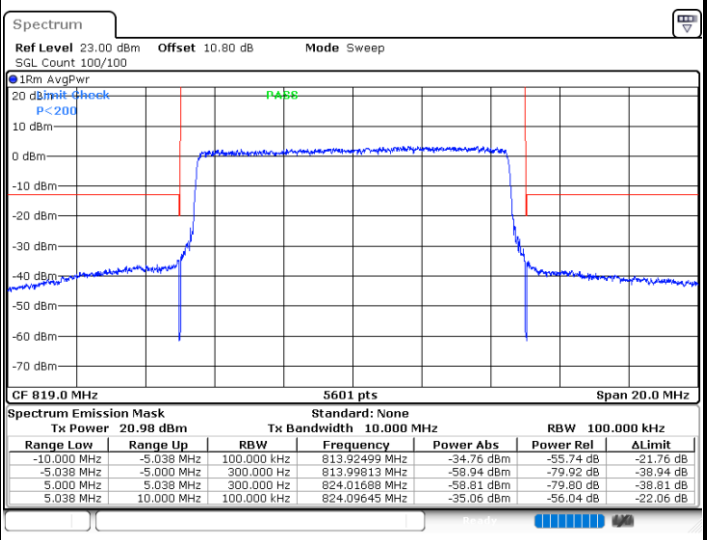
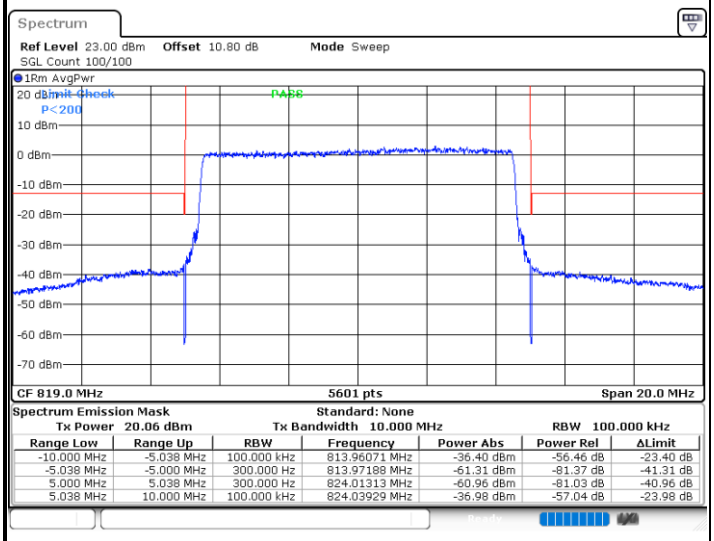
Range Low	Range Up	RBW	Frequency	Power Abs	Power Rel	ΔLimit
-7.500 MHz	-2.538 MHz	100.000 kHz	818.96116 MHz	-30.24 dBm	-51.26 dB	-17.24 dB
-2.538 MHz	-2.500 MHz	300.000 Hz	818.97455 MHz	-53.94 dBm	-74.96 dB	-33.94 dB
2.500 MHz	2.538 MHz	300.000 Hz	824.01205 MHz	-53.68 dBm	-74.70 dB	-33.68 dB
2.538 MHz	7.500 MHz	100.000 kHz	824.03884 MHz	-31.22 dBm	-52.24 dB	-18.22 dB

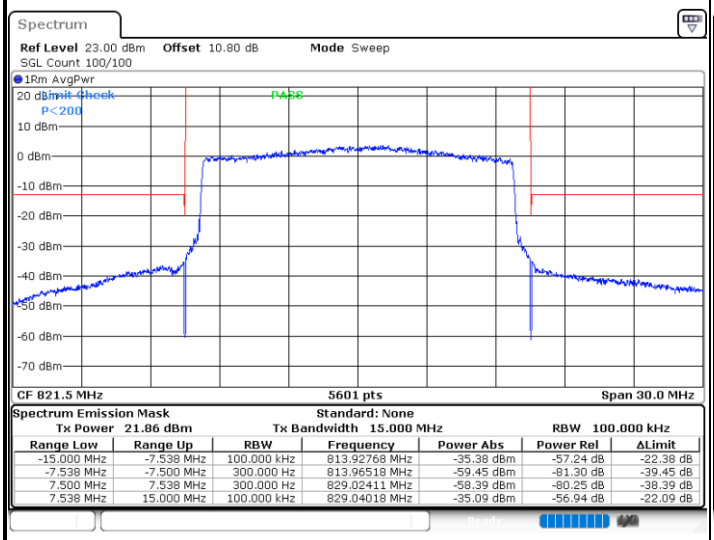
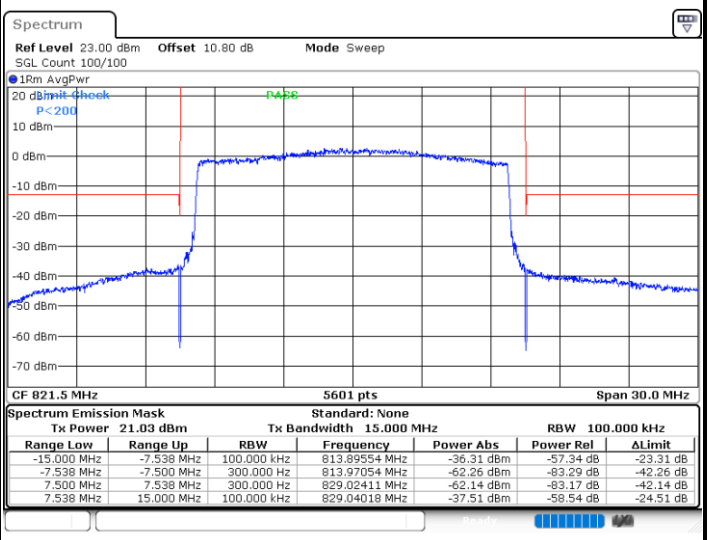
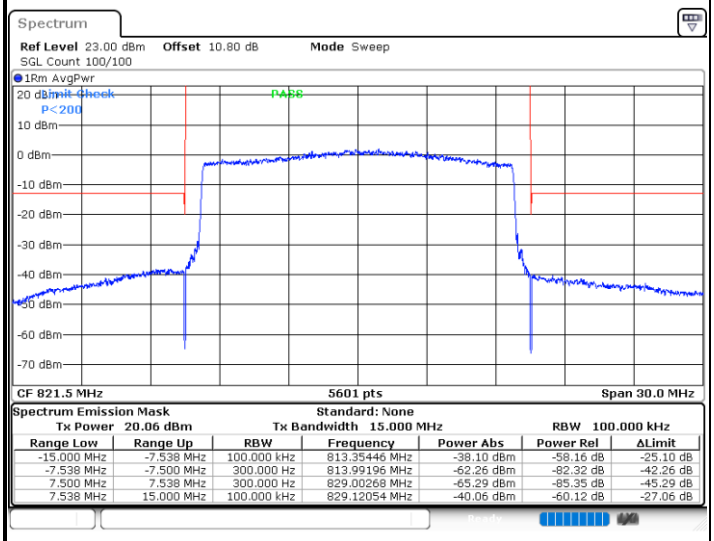
Date: 19.MAY.2023 11:14:23

LTE Band 26 / 5MHz / 64QAM	
Lowest Band Edge / Full RB	**Highest Band Edge / Full RB**





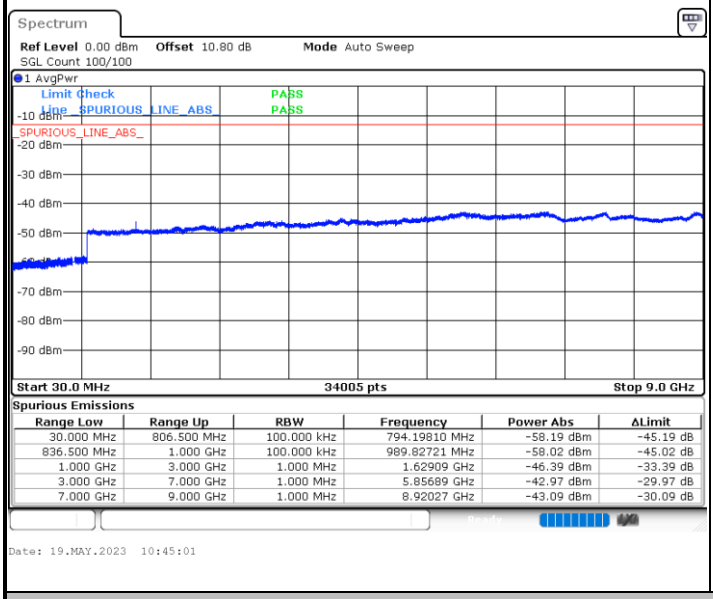
LTE Band 26 / 10MHz / QPSK	LTE Band 26 / 10MHz / 16QAM
Lowest Band Edge / Full RB	**Lowest Band Edge / Full RB**
	
LTE Band 26 / 10MHz / 64QAM	
Lowest Band Edge / Full RB	
	

LTE Band 26 / 15MHz / QPSK	LTE Band 26 / 15MHz / 16QAM
Lowest Band Edge / Full RB	**Lowest Band Edge / Full RB**
	
LTE Band 26 / 15MHz / 64QAM	
Lowest Band Edge / Full RB	
	

Emission masks – Out of band emissions

LTE Band 26 / 1.4MHz

Lowest Channel / QPSK

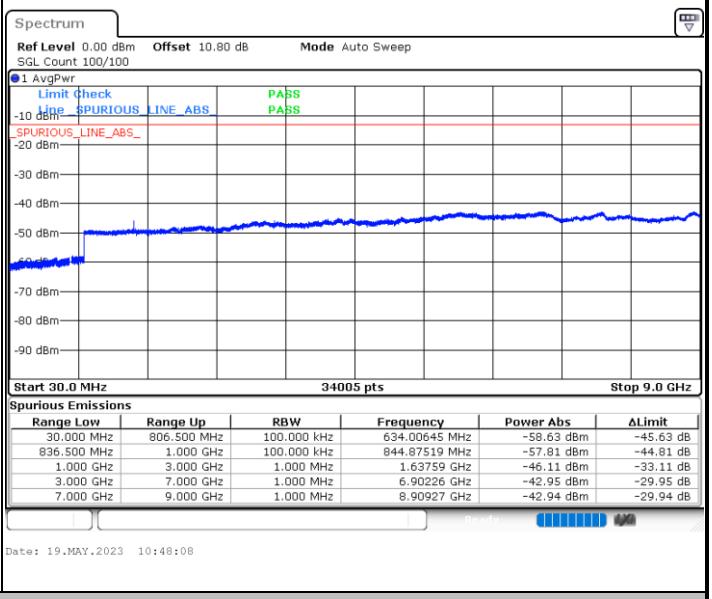


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	794.19810 MHz	-58.19 dBm	-45.19 dB
836.500 MHz	1.000 GHz	100.000 kHz	989.82721 MHz	-58.02 dBm	-45.02 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62909 GHz	-46.39 dBm	-33.39 dB
3.000 GHz	7.000 GHz	1.000 MHz	5.85689 GHz	-42.97 dBm	-29.97 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92027 GHz	-43.09 dBm	-30.09 dB

Date: 19.MAY.2023 10:45:01

Middle Channel / QPSK

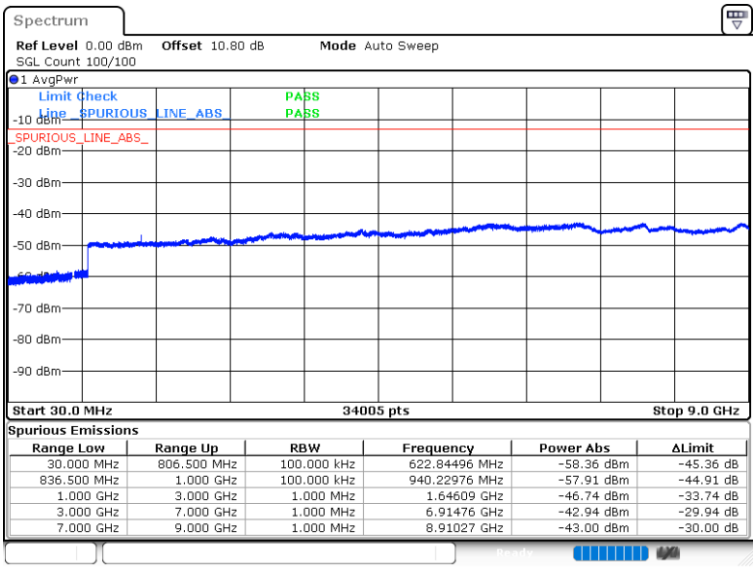


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	634.00645 MHz	-58.63 dBm	-45.63 dB
836.500 MHz	1.000 GHz	100.000 kHz	844.87519 MHz	-57.81 dBm	-44.81 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63759 GHz	-46.11 dBm	-33.11 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90226 GHz	-42.95 dBm	-29.95 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.90927 GHz	-42.94 dBm	-29.94 dB

Date: 19.MAY.2023 10:48:08

Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	622.84496 MHz	-58.36 dBm	-45.36 dB
836.500 MHz	1.000 GHz	100.000 kHz	940.22976 MHz	-57.91 dBm	-44.91 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64609 GHz	-46.74 dBm	-33.74 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.91476 GHz	-42.94 dBm	-29.94 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91027 GHz	-43.00 dBm	-30.00 dB

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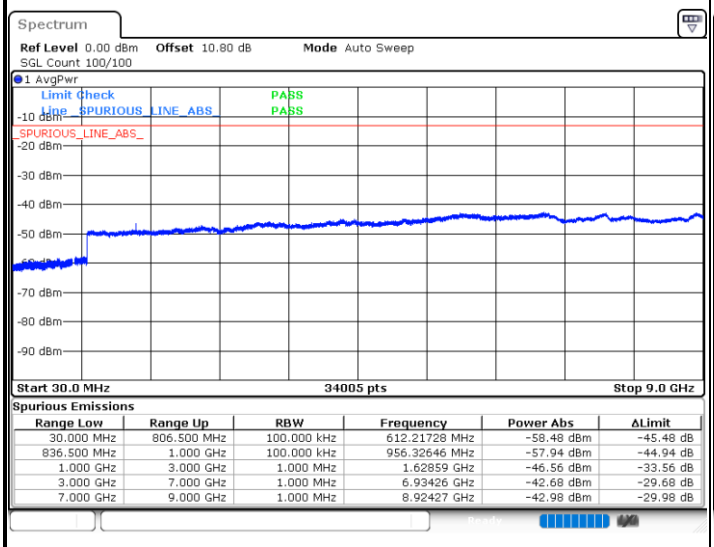
LTE Band 26 / 3MHz

Lowest Channel / QPSK

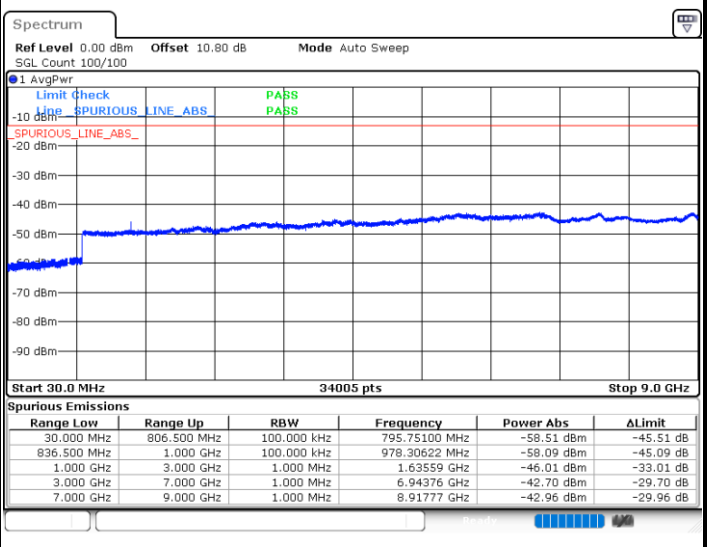


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	612.21728 MHz	-58.48 dBm	-45.48 dB
836.500 MHz	1.000 GHz	100.000 kHz	956.32646 MHz	-57.94 dBm	-44.94 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62859 GHz	-46.56 dBm	-33.56 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93426 GHz	-42.68 dBm	-29.68 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92427 GHz	-42.98 dBm	-29.98 dB

Date: 19.MAY.2023 11:31:47

Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	795.75100 MHz	-58.51 dBm	-45.51 dB
836.500 MHz	1.000 GHz	100.000 kHz	978.30622 MHz	-58.09 dBm	-45.09 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63559 GHz	-46.01 dBm	-33.01 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94376 GHz	-42.70 dBm	-29.70 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.91777 GHz	-42.96 dBm	-29.96 dB

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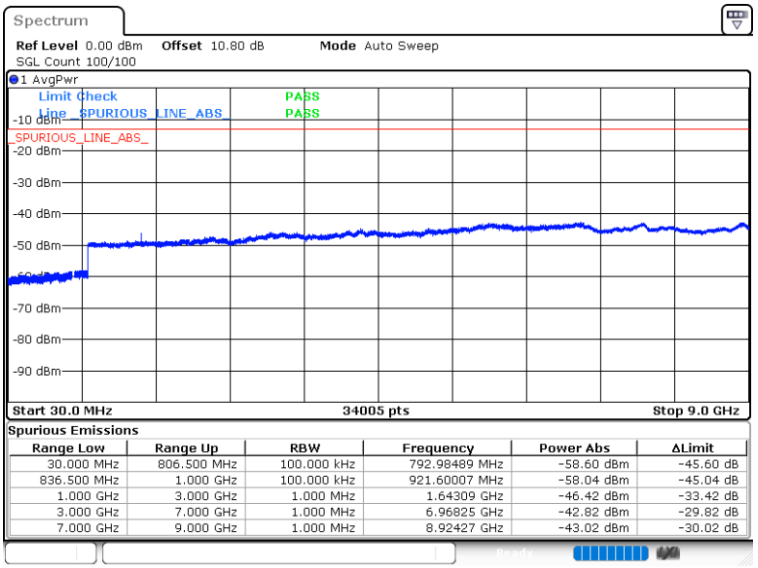
Highest Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	792.98489 MHz	-58.60 dBm	-45.60 dB
836.500 MHz	1.000 GHz	100.000 kHz	921.60007 MHz	-58.04 dBm	-45.04 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.64309 GHz	-46.42 dBm	-33.42 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96825 GHz	-42.82 dBm	-29.82 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92427 GHz	-43.02 dBm	-30.02 dB

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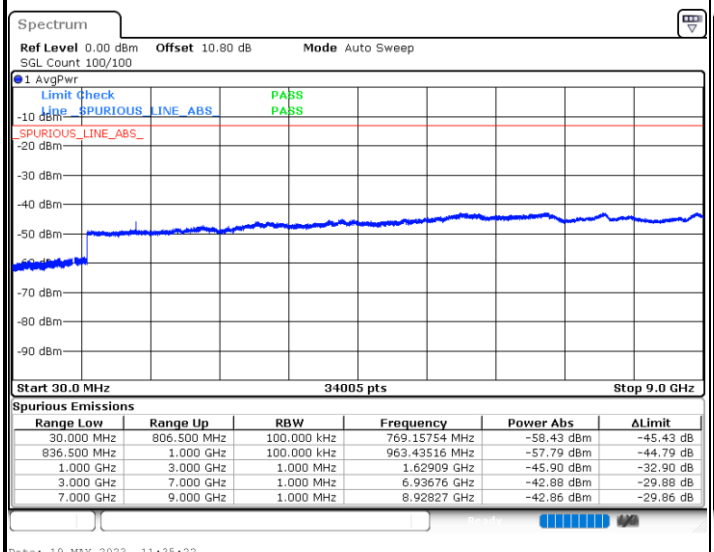
LTE Band 26 / 5MHz

Lowest Channel / QPSK

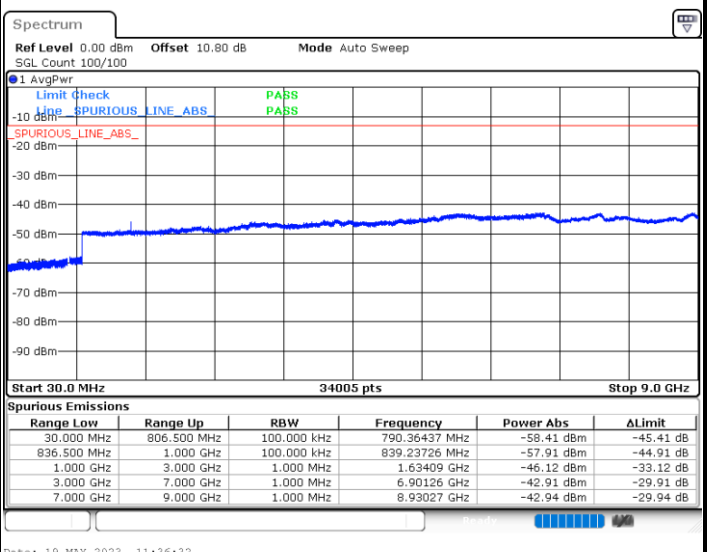


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	769.15754 MHz	-58.43 dBm	-45.43 dB
836.500 MHz	1.000 GHz	100.000 kHz	963.43516 MHz	-57.79 dBm	-44.79 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62909 GHz	-45.90 dBm	-32.90 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.93676 GHz	-42.88 dBm	-29.88 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92827 GHz	-42.86 dBm	-29.86 dB

Date: 19.MAY.2023 11:35:22

Middle Channel / QPSK

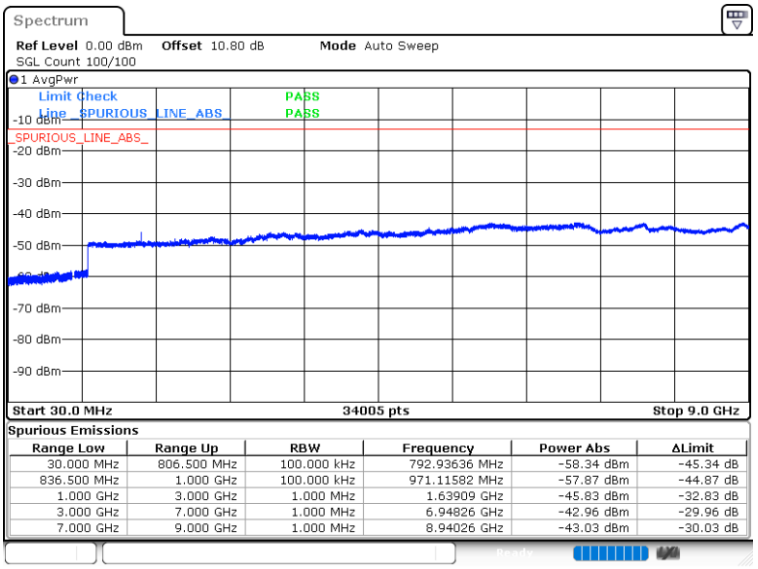


Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	790.36437 MHz	-58.41 dBm	-45.41 dB
836.500 MHz	1.000 GHz	100.000 kHz	839.23726 MHz	-57.91 dBm	-44.91 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63409 GHz	-46.12 dBm	-33.12 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.90126 GHz	-42.91 dBm	-29.91 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.93027 GHz	-42.94 dBm	-29.94 dB

Date: 19.MAY.2023 11:36:32

Highest Channel / QPSK



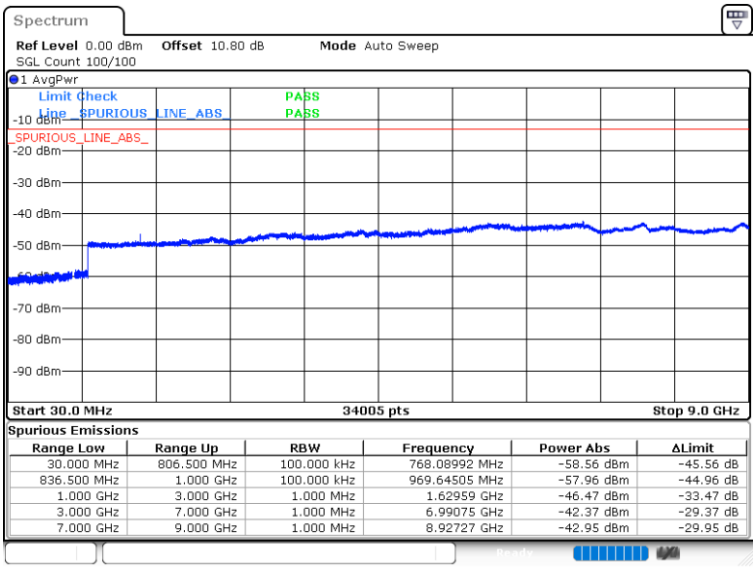
Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	792.93636 MHz	-58.34 dBm	-45.34 dB
836.500 MHz	1.000 GHz	100.000 kHz	971.11582 MHz	-57.87 dBm	-44.87 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63909 GHz	-45.83 dBm	-32.83 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.94826 GHz	-42.96 dBm	-29.96 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.94026 GHz	-43.03 dBm	-30.03 dB

Date: 19.MAY.2023 11:37:42

LTE Band 26 / 10MHz

Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	768.08992 MHz	-58.56 dBm	-45.56 dB
836.500 MHz	1.000 GHz	100.000 kHz	969.64505 MHz	-57.96 dBm	-44.96 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.62959 GHz	-46.47 dBm	-33.47 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.99075 GHz	-42.37 dBm	-29.37 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.92727 GHz	-42.95 dBm	-29.95 dB

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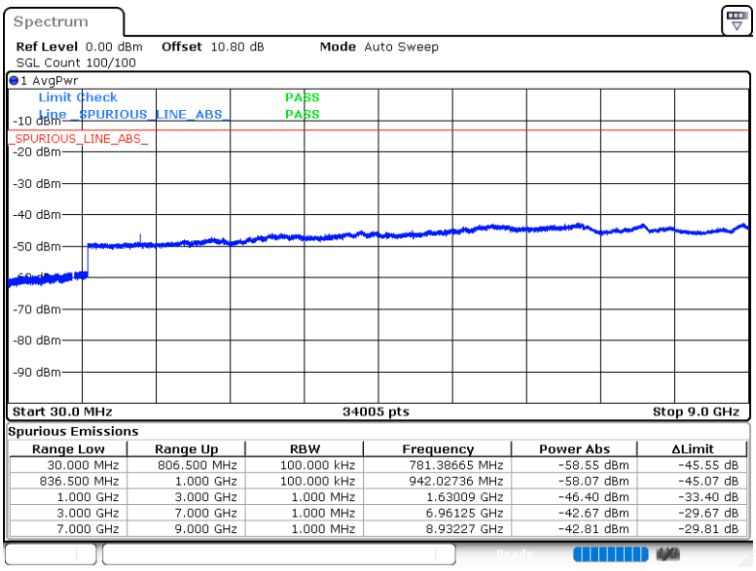
LTE Band 26 / 15MHz

Middle Channel / QPSK



Spurious Emissions

Range Low	Range Up	RBW	Frequency	Power Abs	ΔLimit
30.000 MHz	806.500 MHz	100.000 kHz	781.38665 MHz	-58.55 dBm	-45.55 dB
836.500 MHz	1.000 GHz	100.000 kHz	942.02736 MHz	-58.07 dBm	-45.07 dB
1.000 GHz	3.000 GHz	1.000 MHz	1.63009 GHz	-46.40 dBm	-33.40 dB
3.000 GHz	7.000 GHz	1.000 MHz	6.96125 GHz	-42.67 dBm	-29.67 dB
7.000 GHz	9.000 GHz	1.000 MHz	8.93227 GHz	-42.81 dBm	-29.81 dB

Date: 19.MAY.2023 11:40:13

Frequency Stability

Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0023	PASS
40	Normal Voltage	0.0095	
30	Normal Voltage	0.0021	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0057	
0	Normal Voltage	0.0134	
-10	Normal Voltage	0.0062	
20	Maximum Voltage	0.0092	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0023	

Note:

1. Normal Voltage = 3.8 V.；Battery End Point (BEP) = 3.42 V.；Maximum Voltage = 4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

Test Conditions		LTE Band 26 (QPSK) / Low Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 15MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0009	PASS
40	Normal Voltage	0.0072	
30	Normal Voltage	0.0083	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0058	
0	Normal Voltage	0.0122	
-10	Normal Voltage	0.0063	
20	Maximum Voltage	0.0032	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0112	

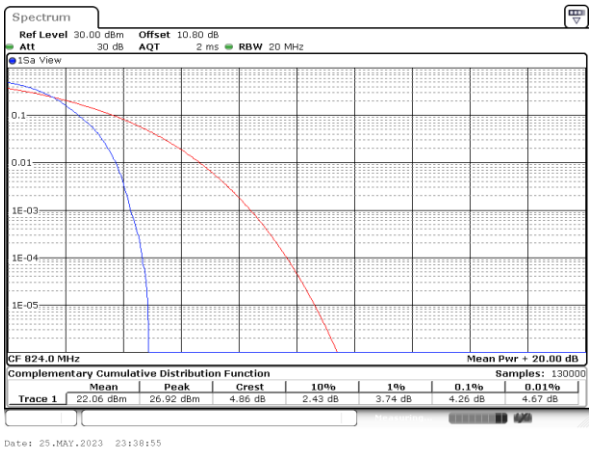
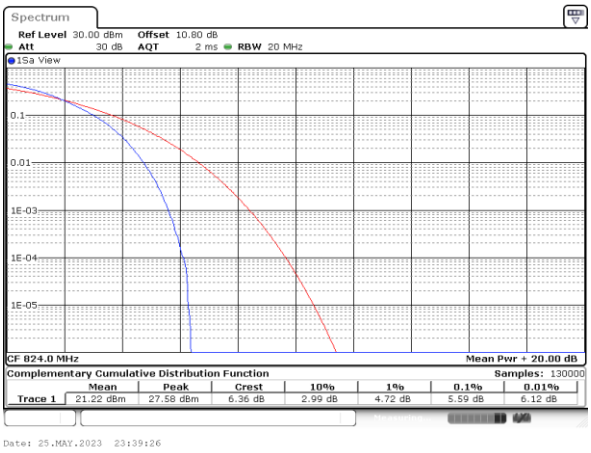
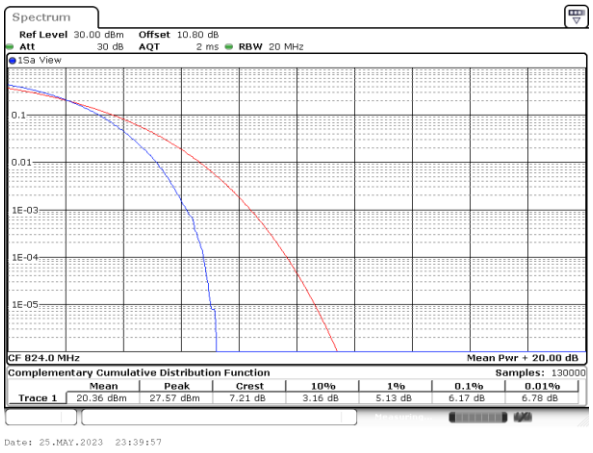
Note:

1. Normal Voltage = 3.8 V.；Battery End Point (BEP) = 3.42 V.；Maximum Voltage = 4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 26 (824MHz)

Peak-to-Average Ratio

Mode	LTE Band 26 / 15MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.26	5.59	6.17	PASS

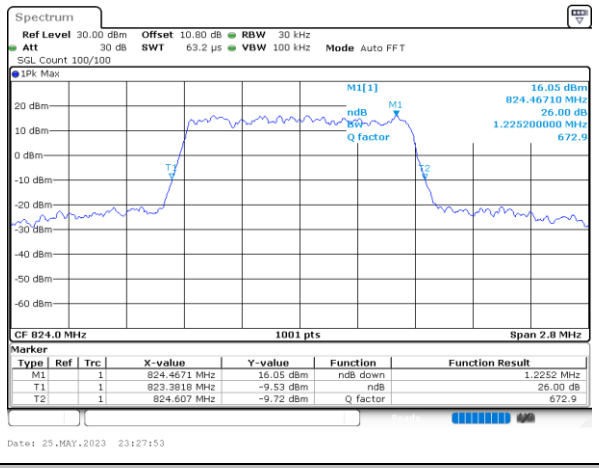
LTE Band 26 / 15MHz / QPSK	LTE Band 26 / 15MHz / 16QAM
Middle Channel / Full RB	Middle Channel / Full RB
	
LTE Band 26 / 15MHz / 64QAM	
Middle Channel / Full RB	
	

26dB Bandwidth

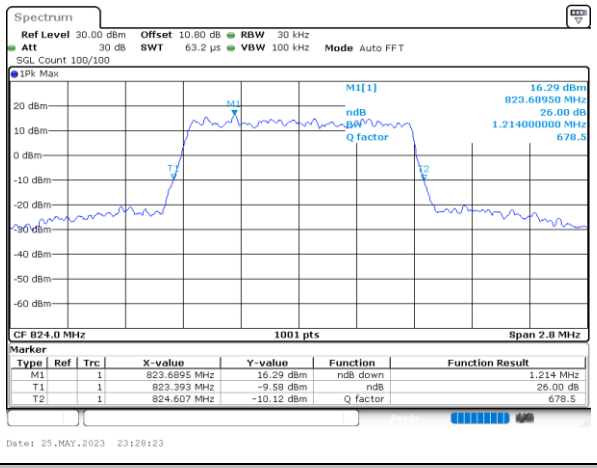
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.23	1.21	3.05	3.00	4.88	4.96	9.69	9.69	14.15	14.27	-	-
Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Middle CH	1.23	-	3.02	-	4.84	-	9.87	-	14.24	-	-	-

LTE Band 26

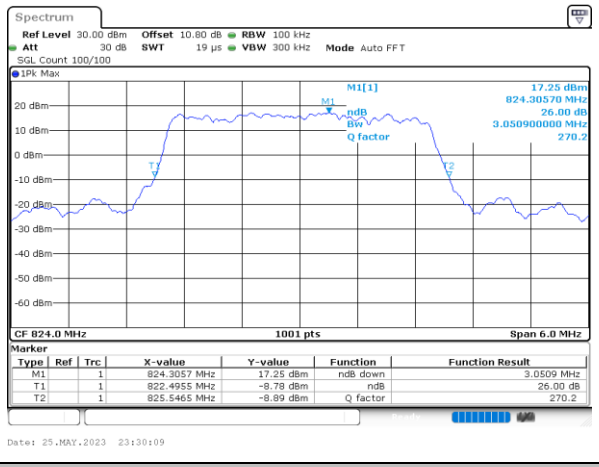
Middle Channel / 1.4MHz / QPSK



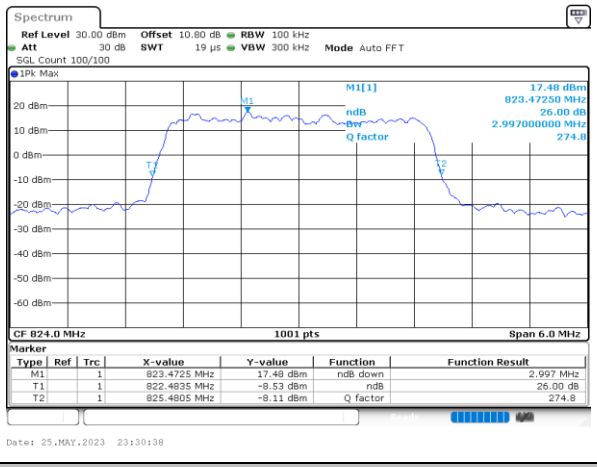
Middle Channel / 1.4MHz / 16QAM



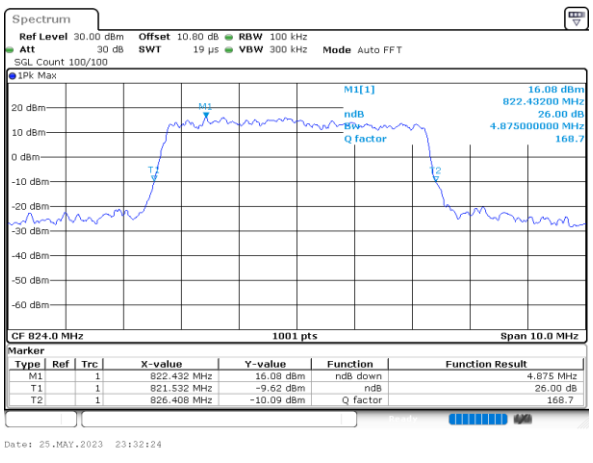
Middle Channel / 3MHz / QPSK



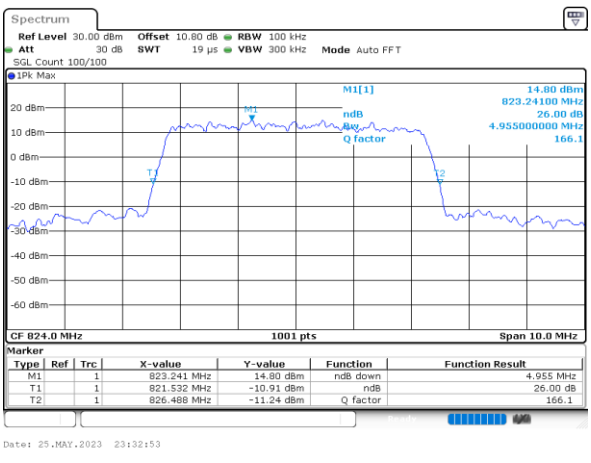
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK

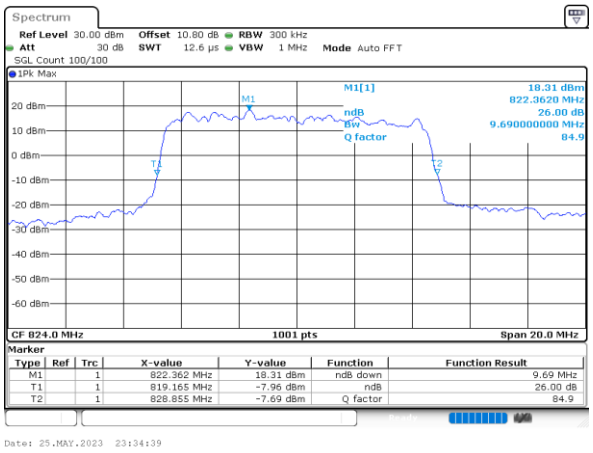


Middle Channel / 5MHz / 16QAM

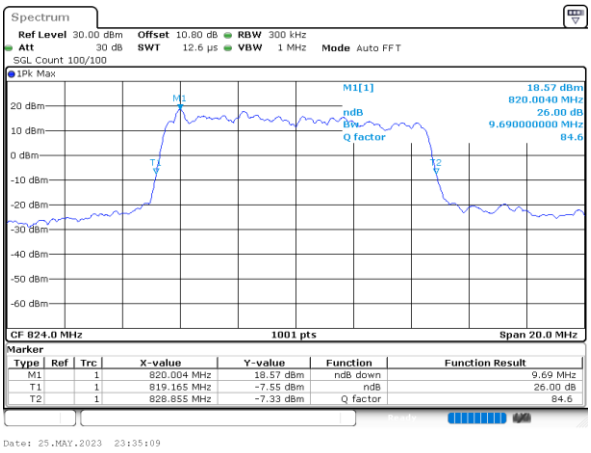


LTE Band 26

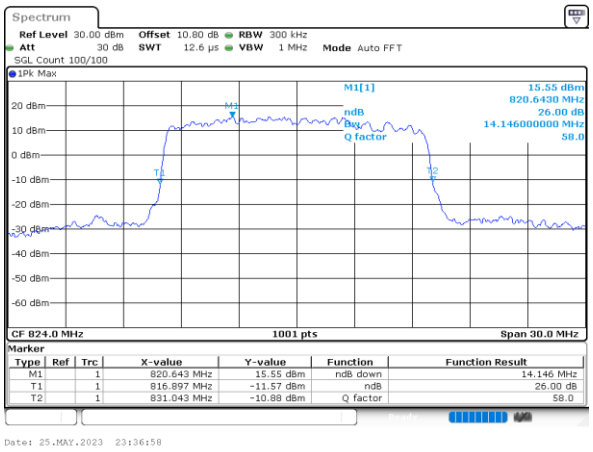
Middle Channel / 10MHz / QPSK



Middle Channel / 10MHz / 16QAM



Middle Channel / 15MHz / QPSK



Middle Channel / 15MHz / 16QAM